BUSINESS PAPER

Infrastructure and Environment Committee Meeting

Council Chambers
17 February 2025

5.30pm

BROKEN HILL
CITY COUNCIL

AUSTRALIA'S FIRST
HERITAGE LISTED CITY

MEMBERS OF THE INFRASTRUCTURE AND ENVIRONMENT COMMITTEE
Mayor Kennedy, Deputy Mayor Hickey (Chairperson) Councillor Algate, Councillor Byrne, Councillor Chandler

Notice is hereby given, in accordance with the provisions of the *Local Government Act 1993*, that the Infrastructure and Environment Committee of the Broken Hill City Council will be held in the Council Chambers on **Monday 17 February 2025** commencing at **5:30pm** to consider the following business:

AGENDA	
1	Opening the Meeting
2	Apologies
3	Leave of Absence Applications
4	Prayer
5	Acknowledgement of Country
6	Acknowledgement of Broken Hill's Mining History
7	Minutes for Confirmation
8	Disclosure of Interest
9	Reports
10	Confidential Matters
11	Conclusion of the Meeting

STATEMENT OF ETHICAL OBLIGATIONS
All Councillors undertook an Oath or Affirmation at the beginning of their term of office and declared to undertake the duties of the office of Councillor in the best interests of the people of the Broken Hill Local Government Area and the City of Broken Hill; and that they will faithfully and impartially carry out the functions, powers, authorities and discretions vested in them under the *Local Government Act 1993* or any other Act to the best of their ability and judgment.

LIVE STREAMING OF COUNCIL MEETINGS
This Committee Meeting is being livestreamed via YouTube and recorded and published online via Council's website. To those present in the meeting today, by attending in this public meeting you are consenting to your image, voice and comments being recorded and published.
The Chairperson and/or General Manager have the authority to pause the livestream if comments or debate are considered defamatory or otherwise inappropriate for publishing.
Participants are advised that they may be subject to legal action if they engage in unlawful behaviour or commentary.

JAY NANKIVELL
GENERAL MANAGER

MINUTES FOR CONFIRMATION

Minutes of the Infrastructure and Environment Committee of the City of Broken Hill held Monday, December 09, 2024.

MINUTES OF THE INFRASTRUCTURE AND ENVIRONMENT COMMITTEE MEETING HELD MONDAY, DECEMBER 09, 2024 (5:30 PM)

PRESENT: Councillor T Kennedy (Mayor) Councillor J Hickey (Deputy Mayor), A Chandler, A Byrne

Councillor Boland

General Manager, Director Corporate and Community, Director Infrastructure and Environment, Executive Officer and Executive Assistant.

Media (Nil), Members of the Public (Nil)

APOLOGIES: Councillors B Algate and D Gallagher

Procedural Motion
Moved Mayor Tom Kennedy,Seconded Councillor Alan Chandler
That the apologies submitted on behalf of Councillors Algate and Gallagher be accepted.

CARRIED UNANIMOUSLY

LEAVE OF ABSENCE APPLICATIONS: NIL

PRAYER

Councillor Chandler delivered the Prayer.

ACKNOWLEDGEMENT OF COUNTRY

Councillor Byrne delivered the Acknowledgement of Country.

ACKNOWLEDGEMENT OF BROKEN HILL'S MINING HISTORY

Mayor Kennedy delivered the Acknowledgement of Broken Hill's Mining History.

MINUTES FOR CONFIRMATION

Recommendation
Moved Mayor Tom Kennedy,Seconded Councillor Alan Chandler
That the Minutes of the Infrastructure and Environment Committee meeting held Monday July 22, 2024 be confirmed.

CARRIED UNANIMOUSLY

DISCLOSURE OF INTEREST

Nil

REPORTS

1. BROKEN HILL CITY COUNCIL REPORT NO. 190/24 - DATED NOVEMBER 26, 2024 - DEVELOPMENT APPLICATION 59/2024 - CHANGE HOURS OF OPERATION (ATTARDS TRANSPORT SERVICE) - 117 RAKOW STREET, BROKEN HILL D24/57175

Recommendation
Moved Councillor Alan Chandler, Seconded Councillor Ashley Byrne

1. That Broken Hill City Council Report No. 190/24 dated November 26, 2024, be received.

2. That Development Application 59/2024 be approved, subject to the following conditions:

a) That the hours of operation shall be restricted to:
7am to 9pm Monday to Friday,
7am to 6pm Saturday and Sunday.

b) That management procedures must be implemented which outlines that trucks are not to be left unnecessarily idling; and also that all drivers are aware of the approved hours of operation.

c) The emission of intrusive noise from the premises shall be controlled at all times in accordance with the *Noise Policy for Industry* (2017) so as to not unreasonably impact nearby residential receivers.

d) Any external lights shall be operated and maintained in accordance with *AS4282: 1997 Control of the Obtrusive Effects of Outdoor Lighting* so as not to cause a nuisance or adverse impact on the amenity of occupants of the surrounding area or to motorists on nearby roads. All lights must be directed so as to not shine directly into neighbouring properties.

CARRIED UNANIMOUSLY

The General Manager took a question on notice regarding operating times of adjacent businesses.

CONFIDENTIAL MATTERS

2. BROKEN HILL CITY COUNCIL REPORT NO. 195/24 - DATED NOVEMBER 25, 2024 - T24/4 - REQUEST FOR TENDER FOR SUPPLY AND INSTALLATION OF FURNITURE AND SHELVING FOR BROKEN HILL LIBRARY **- CONFIDENTIAL**

(**General Manager's Note**: This report considers Tender for Utility Vehicles and is deemed confidential under Section 10A(2) (c) of the Local Government Act, 1993 which provides for information that would, if disclosed, confer a commercial advantage on a person with whom the Council is conducting (or proposes to conduct) business).

Recommendation
Moved Mayor Tom Kennedy, Seconded Councillor Ashley Byrne

1. **That Broken Hill City Council Report No. 195/24 dated November 25, 2024, be received.**

2. **That Council, because of extenuating circumstances and remoteness of locality directly procure through Neeson Murcutt + Neille, Council's contracted architects for the Library Redevelopment Project, the required Furniture and Shelving for the new library as a satisfactory result was not achieved by inviting tenders; and additionally will ensure value for money along with the prescribed quantity of shelving and furniture.**

3. **That Council engage Neeson Murcutt + Neille Architects to undertake the procurement of furniture and shelving for the new library in accordance with the prescribed Furniture and Shelving Schedule and nominated budget of $405,000 (ex GST).**

CARRIED UNANIMOULSY

CONCLUSION OF THE MEETING

There being no further business to consider, the meeting was declared closed at 5:39pm.

The foregoing minutes were read and confirmed at the Infrastructure and Environment Committee meeting held on 17 February 2025.

_____
Chairperson

REPORTS

INFRASTRUCTURE AND ENVIRONMENT COMMITTEE

February 10, 2025

ITEM 1

BROKEN HILL CITY COUNCIL REPORT NO. 20/25

SUBJECT: DRAFT WASTE AND SUSTAINABLE MATERIALS STRATEGY 2025-2035 AND SUSTAINABILITY STRATEGY 2025-2030 FOR PUBLIC EXHIBITION D25/6054

Recommendation

1. That Broken Hill City Council Report No. 20/25 dated February 10, 2025, be received.

2. That Council endorses the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030 for the purpose of public exhibition.

3. That the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030 be placed on public exhibition for submissions to be received for a period of 28 days.

4. That Council receives a further report at the conclusion of the exhibition period, detailing submission and recommend changes arising, with a view to adopting the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030

Executive Summary:

In May 2024, Council engaged Talis Consultants to assist in updating our Sustainability Strategy 2025-2030 (SS) and to help develop a Waste and Sustainable Materials Strategy 2025-2035 (WaSMS) for Council.

The WaSMS is designed to help Council meet the community's expectation of greater resource recovery, to align with the NSW Waste and Sustainable Materials Strategy 2021-2027, and to ensure Council is managing waste in accordance with best practice.

The SS will assist Council in developing and integrating sustainability in Council's operations and minimise the impact Council and the community have on the environment through ethical governance, whilst strengthening economic, social and environmental resilience.

This report seeks endorsement of both the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030 for the purpose of public exhibition for a period of 28 days, to allow the community to provide feedback on the strategies. At the end of the 28-day period, a further report will be presented to Council detailing submission and recommend changes arising, with a view to adopting the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030. Upon adoption the previous version of the Sustainability Strategy 2018-2023 will become obsolete.

Report:

Waste and Sustainable Materials Strategy 2025-2035:

Council has long recognised the benefits of local transformation of waste through recycling and resource recovery initiatives but remains hampered by its isolation and long transport distances to end-use markets. Council's Waste and Sustainable Materials Strategy 2025-

2030 has been developed to address its unique position with respect to location, services and population, building upon the existing waste services Council provides to the community.

The WaSMS aligns with the strategic direction of the NSW WaSMS, whilst retaining as much of the social, economic, and skills-based benefits of local transformation of waste as possible. It has been specifically developed to be flexible and adaptable, allowing Council to pivot to respond to any future policy or regulatory changes.

The WaSMS was developed within the following stages.

- Drivers for Change.
- Where are we today?
- Where do we want to get to?
- How are we going to get there?

The WaSMS has a 10-year strategic delivery horizon, from 2025 to 2035, accompanied by an initial five (5) year Action Plan. Council can revisit the Action Plan at the end of the 5-year period and develop the second one based on the WaSMS and progress made in the first five (5) years. Both the WaSMS and Action Plan will be implemented by Council's Waste Services team.

The NSW WaSMS includes a number of targets for Council's to work towards. These include:

- 10% reduction of total waste generated per person by 2030
- 80% average recovery rate from all waste streams by 2030 – when considering all waste diverted from landfill i.e. materials classified as Clean Recycling, On-Site Reuse and Stockpiled On-site.
- Halve the amount of organic waste sent to landfill by 2030.

Taking into account the NSW WaSMS and the expectations of the community, Councils strategic objectives for the WaSMS 2025-2035 are:

- Reduce generation of waste;
- Increase sustainable recovery of resources from waste;
- Increase diversion of waste from landfill;
- Leverage commercial benefits of waste transformation locally;
- Limit the impact of waste management on the natural and built environment;
- Support development of regional collaboration for improved waste management planning and investment; and
- Support development of innovative circular economy mechanisms and solutions.

<u>Sustainability Strategy 2025-2030:</u>

This Sustainability Strategy and Implementation Plan 2025-2030 has been developed alongside Council to help guide the integration of policies and strategic actions that will facilitate sustainability across Broken Hill over the next 5 years and builds on Council's former Sustainability Strategy 2018 – 2023. The purpose of developing and integrating sustainability in Council's operations is to minimise the impact Council and the community has on the environment through ethical governance, whilst strengthening economic, social and environmental resilience. Council has identified that to develop a more sustainable region we must consider these 4 principles in the following manner:

1. **Economic Sustainability**: Ensuring the cost-effective delivery of works and services, and appropriate maintenance and renewal of Council assets that ensures current and future financial sustainability for the Broken Hill region.
2. **Environmental Sustainability:** Living within the means of our ecological environment, by mitigating overexploitation of natural, resources, such as energy fuels, land and water, by consuming at a sustainable rate, and making decisions that prioritise the protection and maintenance of the natural environment.
3. **Social Sustainability:** Council to facilitate social well-being through collaboration and transparency by engaging with community during decision-making processes to help build and support an inclusive community.
4. **Sustainable Governance:** Council to embed transparent and ethical practices within functions of the organisation through managing and setting targets, reporting processes, strengthening internal and external stakeholder relationships particularly with community, and ensuring a high level of accountability is maintained for continual improvement.

The targets set out in this Strategy are informed by Council's own Community Strategic Plan – Your Broken Hill 2040, Annual Report 2022/2023, Economic Development Strategy 2022-2027, and other issue specific plans and strategies. Careful consideration has been given to planning priorities and actions identified in relevant State and National plans and strategies. The themes and targets identified within this strategy align with the Sustainable Development Goals (SDGs) set out in the United Nations 2030 Agenda for Sustainable Development.

During the development of Council's 2040 Community Strategic Plan (CSP), the community was consulted about their aspirations for Broken Hill. Among the highest priority themes identified in during consultation with the community related to the conservation and preservation of the natural environment and greater reduction of human impacts on the surrounding environment to ensure a sustainable and healthy community as defined in Key Direction 3 – Our Environment within Council's CSP.

As part of Key Direction 3 – Our Environment, three objectives were identified:

- 3.1 Our Environmental footprint is minimised.
- 3.2 Natural environments and flora and fauna are enhanced and protected.
- 3.3 Proactive, innovative and responsible planning that supports the community, the environment and beautification of the City.

Our Sustainability Strategy and Implementation Plan 2025 - 2030 focuses on 11 Core Themes which were developed to achieve the goals realised by the CSP 2040 under Key Direction 3 – Our Environment. The 11 Core Themes are:

#	Core Themes	Priorities
1	Energy Efficiency	Reduce energy use, costs and Greenhouse Gas Emissions.
2	Renewable Energy	Produce energy from renewable sources to reduce costs and Greenhouse Gas Emissions.
3	Gas Consumption	Reduce energy use, costs and Greenhouse Gas Emissions.
4	Transport Energy	Reduce fuel consumption promote active transport (reduce greenhouse gases).

5	Sustainable Procurement	Use procurement to support positive environmental, social and economic outcomes.
6	Carbon Emissions	Measure and reduce Greenhouse Gas Emissions.
7	Water	Reduce water use, costs and have a positive impact on liveability.
8	Waste	Reduce waste to landfill, increase recycling and re-use of resources.
9	Minimising the Environmental Impacts of Mining	Improve the liveability of Broken Hill.
10	Enhancing and Protecting the Natural Flora and Fauna	Improve the liveability of Broken Hill.
11	Built Environment	Improve the liveability of Broken Hill.

This report seeks endorsement of both the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030 for the purpose of public exhibition for a period of 28 days, to allow the community to provide feedback on the strategies. At the end of the 28-day period, a further report will be presented to Council detailing submission and recommend changes arising, with a view to adopting the Waste and Sustainable Materials Strategy 2025-2035 and Sustainability Strategy 2025-2030. Upon adoption the previous version of the Sustainability Strategy 2018-2023 will become obsolete.

Community Engagement:

Talis held workshops with Council's Waste Officers, Council's Elected Body and conducted community consultation through a community survey attached to Council's website and social media pages. These workshops along with the Community Strategic Plan were used to help identify develop goals that align with community expectations for both the WaSMS and SS.

Strategic Direction:

Key Direction:	3	Our Environment
Objective:	3.1	Our Environmental footprint is minimised.
	3.2	Natural environments and flora and fauna are enhanced and protected.
	3.3	Proactive, innovative and responsible planning supports the community, the environment and beautification of the City.
Strategy:	3.1.1	Implement measures to reduce the city's carbon footprint and enhance the circular economy by educating and demonstrating the use of renewable resources.
	3.1.2	Educate the community on measure to avoid waste and reduce littering and waste to landfill.
	3.1.3	Investigate and plan for the minimisation of environmental, social and rehabilitation impacts associated with mining activity on the City.
	3.1.4	Pursue opportunities for scale renewable energy and back up battery capability and investigate new technologies as they emerge.
	3.2.1	Recognise and communicate the fragility of the natural environment and insist on its respectful use and the protection

		and restoration of local biodiversity, lands and accessibility to the night sky.
	3.2.2	Increase awareness and understanding of climate change and active protection of the nature environment.
	3.2.3	Protect, rehabilitate and enhance regeneration areas and commons for the benefit of the City and in accordance with the National Heritage listing.
	3.2.4	Minimise the impact of feral and domestic animals and noxious weeds on the natural environment.
	3.2.5	Advocate for river connectivity in the Murray Darling Basin system, maintaining water supply in the Menindee Lakes system, and maintaining the health of the Darling Baaka River.
	3.3.1	Encourage measure that limit the impact of the changing climate and enhance environmentally sustainable buildings and land use planning.
	3.3.2	Create green and resilient environments by improving tree cover, native vegetation, landscaping and water management systems.
	3.3.3	Preserve the heritage and streetscapes of the City.
	3.3.4	Reuse and repurposing of the existing build environment are managed in a sustainable manner.

Relevant Legislation:

Recycling and Waste Reduction Act 2020
Protection of the Environment Operations Act 1997
Waste Avoidance and Resource Recovery Act 2001
Climate Change (Net Zero Future) Act 2023
Local Government Act 1993

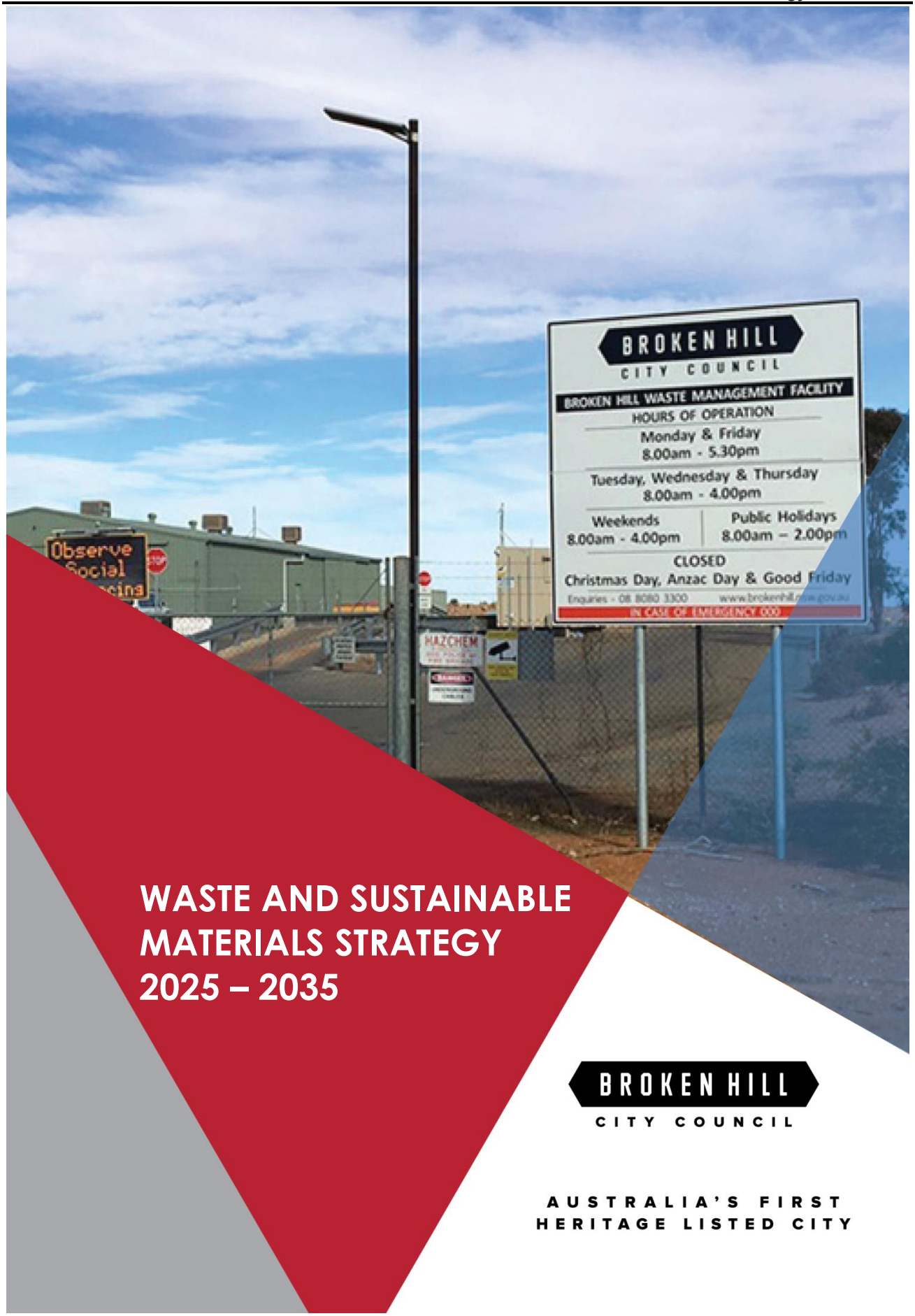
Financial Implications:
Any Initiatives adopted because of the WaSMS and SS, will be budgeted as per available funding and usual approval process.

Attachments

1. ⇩ Broken Hill Waste and Sustainable Materials Strategy 2025-2035
2. ⇩ Broken Hill Sustainability Strategy and Implementation Plan 2025-2030

CODIE HOWARD
DIRECTOR INFRASTRUCTURE AND ENVIRONMENT

JAY NANKIVELL
GENERAL MANAGER



WASTE AND SUSTAINABLE MATERIALS STRATEGY 2025 – 2035

BROKEN HILL
CITY COUNCIL

AUSTRALIA'S FIRST
HERITAGE LISTED CITY

QUALITY CONTROL			
KEY THEME	3. Our Environment		
OJECTIVE	3.1 Our environmental footprint is minimised		
STRATEGY	3.1.2 Educate the community on measures to avoid waste and reduce littering and waste to landfill		
FUNCTION	Waste Management		
EDRMS REFERENCE	11/200	**FILE REFERENCE**	D25/6177
RESPONSIBLE POSITION	Waste and Sustainability Manager		
APPROVED BY	General Manager		
REVIEW DATE	December 2035		
DATE	**ACTION**	**MINUTE NUMBER**	
NOTES	Front Cover Image: Broken Hill Waste Management Facility. Content and images provided by Talis Consulting Pty Ltd. © Copyright Talis Consultants Pty Ltd *Copyright of this document or any part of this document remains with Talis Consultants Pty Ltd and cannot be used, transferred, or reproduced in any manner or form without prior written consent from Talis Consultants Pty Ltd.*		
ASSOCIATED DOCUMENTS	Landfill Environment Management Plan Broken Hill Sustainability Strategy 2025 - 2030		

Acknowledgement of Country

Broken Hill City Council acknowledges the traditional owners of the land upon which we meet today, the land of the Wilyakali people and pay our respects to their elders; past, present and emerging.

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TABLES

FIGURES

APPENDICES

Acronyms

Abbreviation	Full Form
CCMAP	Climate Change Mitigation and Adaptation Plan
C&D	Construction and Demolition (Waste)
CDS	Container Deposit Scheme
C&I	Commercial and Industrial (Waste)
CRC	Community Recycling Centre
CSP	Community Strategic Plan
DWMC	Domestic Waste Management Charge
EPA	(NSW) Environment Protection Authority
EPL	Environment Protection Licence
EfW	Energy from Waste
FOGO	(Combined) Food Organics and Garden Organics
GO	Garden Organics
GHG	Greenhouse Gas (emissions)
IPART	Independent Pricing and Regulatory Tribunal
LGA	Local Government Area
MRF	Material Recovery Facility
MSW	Municipal Solid Waste
OLG	Office of Local Government
PFAS	Per- and Poly-Fluoroalkyl Substances
RENEW	Regional Networks for Effective Waste Management
REZ	Renewable Energy Zone
ROS	Rest of State

1. INTRODUCTION

Broken Hill City Council (Council) has long recognised the benefits of local transformation of waste through recycling and resource recovery initiatives but remains hampered by its isolation and long transport distances to end-use markets.

Council now seeks to develop its own 10-year Waste and Sustainable Materials Strategy 2025-2035, with particular emphasis on delivering strategic improvement of waste and resource recovery through a more circular and sustainable delivery lens. This is in direct response to community expectations of greater resource recovery, the NSW *Waste and Sustainable Materials Strategy* (WaSMS) 2021-2027, and to ensure Council is managing waste in accordance with best practice. In addition, Council has identified its desire to explore waste management solutions that will consider new and innovative material processing solutions to achieve greater resource recovery.

1.1 STATEMENT OF DOCUMENT PURPOSE

Council's Waste and Sustainable Materials Strategy 2025-2030 (the Waste Strategy) has been developed to address its unique position with respect to location, services and population, building upon the existing waste services Council provides to the community.

The Strategy aligns with the strategic direction of the NSW WaSMS, whilst retaining as much of the social, economic, and skills-based benefits of local transformation of waste as possible. It has been specifically developed to be flexible and adaptable, allowing Council to pivot to respond to any future policy or regulatory changes.

1.2 STAGES OF STRATEGY DEVELOPMENT

Development of the Strategy was undertaken within the following primary stages.

The primary stages were:

- Drivers for Change – A review of key policy in context of delivering positive change in regional waste management outcomes.
- Where are we today? – A review of current operations, services, and their relative performance.
- Where do we want to get to? – A statement of strategic vision and objectives a new Waste Strategy will be required to deliver.
- How are we going to get there? – Development of a strategic framework with specific actions to improve how waste is managed and embedded resources recovered within the local government area (LGA).

1.3 STRATEGY DELIVERY

The Strategy has a 10-year strategic delivery horizon, from 2025 to 2035, accompanied by an initial five (5) year Action Plan. Council can revisit the Action Plan at the end of the 5-year period and develop the second one based on the Strategy and progress made in the first five (5) years.

Both the Strategy and Action Plan will be implemented by Council's Waste Services team.

1.4 STAKEHOLDER ENGAGEMENT

The Strategy and its Action Plan were developed within a close working relationship between Talis and Council.

Council was engaged within development of the Strategy at three key touchpoints. These were:

- Request for Information – initial request for LGA-specific data and information.
- Strategy Development Workshops— separate workshops with staff and Councillors to discuss the draft vision, strategic objectives and high-level Actions to deliver these.
- Community Consultation via a voluntary survey.

1.5 SOURCE OF DATA AND INFORMATION

Council provided Annual Facility Reports and Local Government Waste and Resource Recovery (LG WARR) Data Survey from FY20/21, FY21/22 and FY22/23, which formed the basis of the calculations for the waste generated and managed by Council, as well as the waste projections used within this report.

2. DRIVERS FOR CHANGE

Drivers for change, or more commonly referred to as *drivers for improvement in waste service delivery and operational performance*, broadly include the framework of regulations, policies, strategies, plans and guidelines (policy) at the local, regional, state, and national level, as well as a number of waste industry Guiding Principles. They influence and guide the development of new waste strategies by providing the context in which it needs to be developed and delivered.

These drivers are either related directly to waste management and resource recovery, or indirectly related to it, for example, to sustainability, such as reducing greenhouse gas emissions/climate change/net zero emissions and driving the development of a local circular economy.

It is important to recognise that the current Policy environment at both the national and state level is very much in a state of flux, with rapid changes occurring, especially on the climate change front, transferring delivery of key objectives and targets to the waste management industry. The full extent of recent changes on the local government sector remains to be seen, but it is generally understood that Councils will shoulder increased responsibilities and their associated costs related for waste management and to reduce their impacts on climate change. There is also the growing requirement for local government to be more prepared to assess and mitigate risks of waste service delivery in the face of climate change.

For example, the NSW WaSMS target of halving organics landfilled by 2030 is one example of this, working hand-in-hand with the state mandating the source separation and collection of food and garden organics for households by 2030 and selected businesses (including large supermarkets and hospitality businesses) by 2025. These initiatives support the state target of net zero emissions from organics to landfill by 2030.

2.1 SUMMARY OF POLICY

A summary of the combined direction of Policy driving change within the waste industry is presented below, whilst a more detailed synopsis is presented within **Appendix A**.

- National Waste Policy (2018)
- National Waste Policy Action Plan (2019)
- National Plastics Plan (2021)
- National Food Waste Strategy
- NSW Circular Economy Policy Statement (2019)
- NSW DPIE Waste and Sustainable Materials (WaSM) Strategy (2021 – 2041)
- NSW EPA WaSM Program Funding (2021 onwards)
- NSW DPIE Plastics Action Plan (2021 – 2041)
- NSW EPA Waste Delivery Plan
- NSW DPIE Infrastructure Plan (2021 – 2041)
- NSW EPA Climate Change Policy (2023)
- NSW EPA Climate Change Action Plan (2023 – 2026)
- NSW EPA Strategic Plan (2021 – 2024)
- NSW EPA EfW Infrastructure Plan (2021)
- NSW DPIE Net Zero Plan - Stage 1 (2020 – 2030)

Key components of Policy assessed as influential for development of a new waste strategy are summarised below under common subject matter headings.

2.1.1 Sustainable Procurement

- Adoption of policy to improve recycled content procurement.
- Development of procurement targets for recycled content, including how they will be calculated, achieved and audited.
- Reporting on progress in achieving procurement targets with recycled content, particularly those which have significantly increased use of recycled materials within infrastructure projects.
- Facilitate joint council procurement of waste services.

2.1.2 Strategic Infrastructure, Planning and Investment

- Analysis and reporting of requirements for infrastructure capacity to process paper/cardboard, glass, plastics and tyres.
- Building industry capacity to collect, recover, recycle, and remanufacture from waste.
- Identification of opportunities to increase uptake of recycled content within development of buildings and infrastructure, in particular plastics, rubber and glass.
- Create new job opportunities associated with innovative technologies.
- Invest in innovation and innovative processing technologies which lower the cost of renewable energy and/or emissions released (clean technology program).
- Consider future, new waste streams associated with a low carbon economy, such as batteries and solar panels.

2.1.3 Avoid Generation of Waste

- Support of programs for business and communities to avoid generation of waste and divert waste from landfill, particularly food waste, including community-based "repair" of waste.
- Delivery of targeted programs to businesses to identify and avoid waste generation and increase efficiency of use of materials and their recovery from waste streams.
- Reduce total waste per person by 10% by 2030.

2.1.4 Community Waste Awareness and Education Programs

- Use of community education programs to reduce food waste, in particular.
- Improve quality of co-mingled MRF recyclates through a "whole-of-value chain" approach.
- Foster behaviour change through education and engagement.

2.1.5 Circular Economy (CE)

- Support and promotion of CE principles – support innovation, sustainable procurement, high quality consistent recycling, value organics, product stewardship, circular design, re-use and repair and responsible packaging.
- Supporting and promotion of CE principles within businesses.
- Community and industry actively contribute to a CE.
- Leverage government purchasing power to stimulate local CE.
- Design for the multiple uses at the highest value– such as reuse, sharing, remanufacturing and refurbishment as preference to recycling.
- Advocacy to support best-practice CE mechanisms, such as product stewardship and responsible packaging design.

- Development of new markets for recovered re-processed and re-manufactured commodities.
- Resilient systems and robust markets are available to keep waste materials circulating and to de-carbonise the NSW economy.
- Support reuse of crushed glass, particularly road construction and other civil works.
- Support growth of sustainable markets for high quality, processed organics.
- Support reuse and repair.
- Explore more effective means to improve data reporting and sharing of information.

2.1.6 Improve Waste Management and Resource Recovery

- Leveraging existing regional development programs to support better waste management and resource recovery.
- Achieve 80% average recovery rate for all waste streams by 2030.
- Ensure the harmful impacts of waste are reduced and waste minimised.
- Promote landfill consolidation and environmental improvements plans.
- Support increased supply of higher-grade paper available for recycling (to replace non-recyclable packaging).
- Support higher grade tyre crumbing, tyre-derived fuel, and exploring processing tyre-derived polymers (TDP).
- Investigate landfill options past 2040 (when existing capacity exhausted).
- Focus on landfill diversion options for problem wastes such as textiles.

2.1.7 Improve Hazardous Waste Management

- Better management of end-of-life disposal of products containing hazardous substances.

2.1.8 Divert Organics from Landfill

- Delivery of kerbside FOGO collection for households and businesses.
- Support for organics processing facilities.
- Halve landfilled organic waste by 2030.
- Achieve net zero emissions from organic waste by 2030, including:
    - Separate collection of food and garden organics from all NSW households by 2030.
    - Separate collection of food waste from businesses that generate highest volumes – includes large supermarkets and hospitality, by 2025.
- Take action to reduce emissions and mitigate climate change impacts aligned with the principles in the NSW Net Zero Plan 2050.
- Increase uptake of landfill gas capture.
- Create a carbon negative waste sector.

2.1.9 Reduce Litter

- Reduce overall litter by 60% by 2030 and plastic litter by 30% by 2025.
- Reduce cigarette butt litter in particular.

2.1.10 Avoid Plastic Waste

- Eliminate single use plastics by 2025.
- Triple plastics recycling rate by 2030.
- Accelerate transition to better plastic products.

2.1.11 Reduce Illegal Dumping and Waste Crime

- Reduce and prevent Illegal dumping.

2.1.12 Develop Energy from Waste

- Use non-combustion technology, particularly that derived from waste feedstock, producing energy on site for industrial and/or manufacturing purposes.

2.2 POLICY FRAMEWORKS

2.2.1 National Framework

The National *Waste Policy – Less Waste, More Resources* was released by the Department of the Environment and Energy in 2018 and provides a framework for collective action by businesses, governments, communities, and individuals until 2030. The policy identifies the following seven targets:

- Ban the export of waste plastic, paper, glass, and tyres, commencing in the second half of 2020.
- Reduce total waste generated in Australia by 10% per person by 2030.
- 80% average resource recovery rate from all waste streams following the waste hierarchy by 2030.
- Significantly increase the use of recycled content by governments and industry.
- Phase out problematic and unnecessary plastics by 2025.
- Halve the amount of organic waste sent to landfill by 2030.
- Make comprehensive, economy-wide, and timely data publicly available to support better consumer, investment and policy decisions.

2.2.2 State Framework

The NSW government released the WaSMS Stage 1 as the first stage of a 20-year strategy focusing on the environmental benefits and economic opportunities to reduce waste, improve waste management and increase material recycling.

The WaSM Strategy aims to reduce waste generated and increase recycling through adoption of the Targets outlined in Error! Reference source not found.[1].

[1] Source: *NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027*

The NSW government has also recently released the NSW Litter Prevention Strategy 2022–30 and the Illegal Dumping Prevention Strategy 2022-27, both of which underpin the WaSMS.

Figure 2-1 - NSW WaSMS Targets

To achieve the WaSMS targets of halving food waste to landfill and achieving net zero emissions from organics in landfill by 2030, the government will require the separate collection of:

- Food and garden organics from all NSW households by 2030; and
- Food waste from businesses that generate the highest volumes, including large supermarkets and hospitality businesses, by 2025.

Based on an assessment of waste and circular economy infrastructure needs over the next decade and beyond, the government has identified three key areas to focus on – residual waste, organics, and plastics. Recovery and recycling infrastructure will need to keep pace with demand and to support this, there will need to be investment in new and upgraded facilities from now to 2030 to prevent any shortfall in capacity.

Getting the right infrastructure in the right place will be critical to recover, reuse and extend the life of most materials. The WaSMS *Guide to Future Infrastructure Needs 2021* reviews the waste infrastructure requirements in NSW to underpin this change.

The NSW Government has also released the Energy From Waste (EfW) Infrastructure Plan. The Parkes Special Activation Precinct (SAP) has been identified as one of the priority locations to host a waste from energy facility, along with West Lithgow Precinct, Richmond-Valley Regional Jobs Precinct and Southern Goulburn Mulwaree Precinct.

The *NSW Plastics Action Plan* supports the *WaSM*. The *NSW Plastics Action Plan* will assist in delivering the following targets from the WaSM Strategy:

- Phase out problematic and unnecessary plastics by 2025.
- Reduce the total waste generated by 10% per person by 2030.
- Achieve an average 80% recovery rate of resources from all waste streams by 2030.
- Significantly increase the use of recycled content by government and industry.
- Reduce plastic litter items by 30% by 2025.
- Reduce the overall litter by 60% by 2030.
- Triple the plastics recycling rate by 2030.

The Net Zero Plan Stage 1 (2020 – 2030) is the foundation for NSW's action on climate change and goal to reach net zero emissions by 2050, helping to achieve the State's objective to deliver a 70% reduction in emissions by 2035 compared to 2005 levels. The Plan supports a range of initiatives targeting energy, electric vehicles, hydrogen, primary industries, technology, built environment, carbon financing and organic waste.

2.2.3 Regional Framework

Broken Hill City Council is within the NetWaste voluntary regional waste group, which spans almost 40% of the State. NetWaste's *Regional Waste and Sustainable Materials Strategy 2023 – 2027*[2], adopted in 2023, outlines a regional commitment for collective action to reduce waste and increase resource recovery across its 25 member Councils.

2.2.4 Local Framework

The *Local Government Act 1993* sets out the legal framework, governance, powers, and responsibilities of councils in New South Wales. Guiding principles for councils include:

- Conducting functions in a way that provides the best possible value for residents and ratepayers.
- Planning strategically for the provision of effective and efficient services to meet the diverse needs of the local community.
- Collaborating co-operatively with other councils and the State government to achieve desired outcomes for the local community.
- Working with others to secure appropriate services for local community needs.

Councils may provide goods, services, and facilities, and conduct activities, appropriate to the current and future needs within their local community and of the wider public. The *Act* sets out the functions of councils, including its service functions such as, providing community health, recreation, education and information services, environmental protection, and waste removal and disposal. A council must also levy an annual charge for the provision of domestic waste management services for each parcel of rateable land for which the service is available.

[2] https://www.netwaste.com.au/wp-content/uploads/2023/03/TW22135_NetWaste_Regional-Waste-and-Sustainable-Materials-Strategy-2023-2027_5.0.pdf

2.2.4.1 Community Strategic Plan

Council's *Community Strategic Plan* (CSP)[3] is a key element within the integrated planning and reporting framework. This framework aims to streamline a council's operations and optimise the use of resources. The CSP addresses four key questions for the community:

- Where are we now?
- Where do we want to be in ten years' time?
- How will we get there?
- How will we know when we have arrived?

The implementation of the CSP is supported by a suite of integrated plans that include actions to support the strategies identified in the CSP. These include the following:

- Delivery Program – a 4-year (4) plan that sets out the strategies from the CSP that will be priorities for the current council term.
- Operational Plan – an annual plan containing detailed actions from the Delivery program.
- Resourcing Strategy – a suite of key plans that support the implementation of the CSP, focusing on finances, workforce, and asset management.

Sustainable waste services are commonly included as a high-level entry within the Environment sections, or similar, within the regional CSPs.

Specifically, Objective 3.1 Our environmental footprint is minimised, aims to Educate the community on measures to avoid waste and reduce littering and waste to landfill (3.1.2).

In the future Council hopes to be recycling waste into needed products by implementing programs and partnerships that address reduction of waste. Successful waste reduction outcomes aim to be celebrated.

2.2.4.2 Sustainability Strategy 2018-2023

Council's Sustainability Strategy is designed to align with the United Nations' Sustainable Development Goals (SDGs), reflecting Council's commitment to fostering a sustainable and resilient community. Through a series of action plans, the Strategy outlines how Council will contribute to global sustainability efforts while addressing local priorities. The Strategy includes 11 Action Plans, as follows:

- Energy Efficiency Plan
- Renewable Energy Plan
- Gas Consumption Plan
- Transport Energy Plan
- Sustainability Procurement Plan
- Carbon Emissions Plan
- Water Plan
- Waste Plan
- Minimising the Environmental Impacts of Mining

[3] Community Strategic Plan - *Your Broken Hill 2040*, Broken Hill City Council, 2022 (nsw.gov.au)

- Plan for Enhancing and Protecting the Natural Flora and Fauna
- Built Environment Plan

Council is currently in the process of developing a new Sustainability Strategy, which will also include 11 Action Plans, each with their own actions and targets. Action Plan 8 is focused on waste and speaks to resource recovery, material segregation and the circular economy.

2.2.4.3 Climate Change

Although the Council does not currently have a formal climate change policy or a dedicated climate change action plan, it recognizes the importance of addressing climate change as a significant, overarching issue. This acknowledgment informs and influences the Council's approach to decision-making across various sectors. Environmental sustainability, climate resilience, and the potential impacts of climate change are considered when planning projects, setting priorities, and developing policies. The Council is committed to taking these factors into account even without a structured policy, ensuring that climate change is factored into its overall governance and community responsibility.

2.2.4.4 Waste Policy

Council's Waste Services policy defines conditions and provides the setting of fees for the collection and disposal of waste and commercial wastes which originate in the Broken Hill local government area (LGA). The policy provides a regular and efficient household waste collection and disposal service to meet the needs of the Broken Hill Community in a cost-effective manner and provides a range of commercial waste service options to meet the needs of the business community of Broken Hill.

2.2.4.5 Renewable Energy Action Plan

The *Broken Hill Renewable-Energy-Action-Plan 2020* references bioenergy as it relates to waste, noting that residential and commercial waste may be a potential source of energy to provide for Council's future needs. This could include waste cooking oil being converted into biodiesel to run heavy fleet or landfill gas generation. The Plan notes that a specific high-level audit of organic waste streams would be the starting point for investigating bioenergy.

2.3 GUIDING PRINCIPLES

The guiding principles presented below provide the basis for driving improved change within the waste management and resource recovery industry. The principles influence the approaches to facilitate greater diversion of waste from landfill, guide better practices and improve performance. The principles include the internationally recognised circular economy, waste hierarchy, along with state-based initiatives of net zero emissions and sustainable procurement. These principles form the basis upon which the Strategy has been developed.

2.3.1 Circular Economy

NSW is transitioning to a circular economy over the next 20 years. A circular economy aims to 'close the loop on waste' by minimising what we throw away, and using and reusing our resources efficiently, making them as productive as possible. It is an alternative to the traditional linear economy (take, make, use, dispose), which refers to taking resources, making goods that are then bought and used to then be disposed of as waste as shown in **Figure 2.2.**

Figure 2-2: Circular Economy

The *NSW Circular Economy Policy Statement*[4] (NSW EPA, 2019) guides the ambition and approach to a circular economy and establishes seven principles to maximise the use and value of resources including:

- Sustainable management of all resources.
- Valuing resource productivity.
- Design out waste and pollution.
- Maintain the value of products and materials.
- Innovate novel solutions for resource efficiency.
- Create new circular economy jobs.
- Foster behaviour change through education and engagement.

Benefits of implementing a circular economy concept include job creation, reduction in carbon emissions and improved resource efficiency.

2.3.2 Waste Hierarchy

The waste management hierarchy is an internationally adopted principle and concept which lists waste management options in order of preference according to their sustainability and environmental impacts.

The hierarchy has been adopted within the Strategy as the basis for classifying and assessing the various resource recovery options which are being considered to assist Council to improve waste management.

[4] https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/recycling/19p1379-circular-economy-policy-final

Options which achieve outcomes higher up the hierarchy are preferred over those located further down the hierarchy.

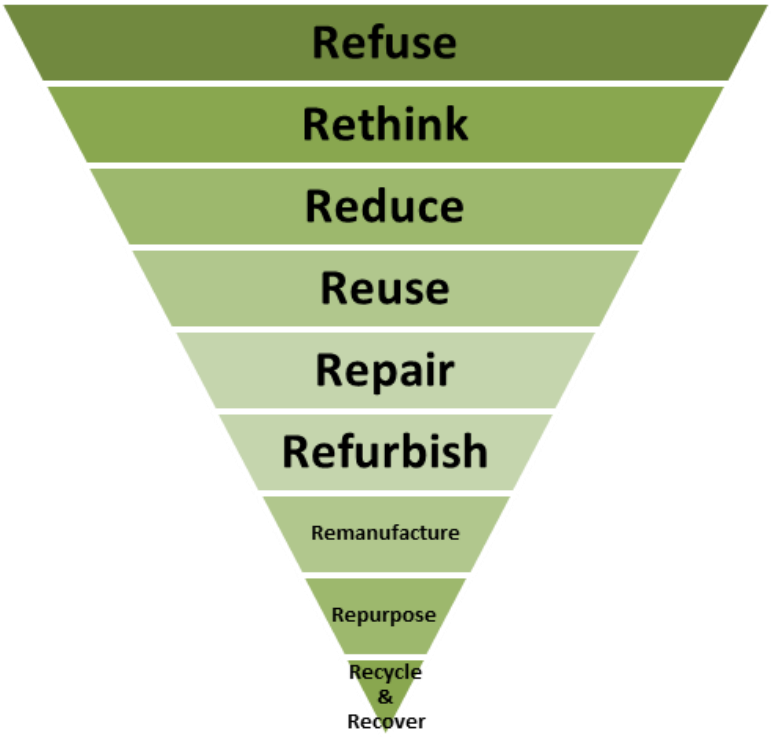


Figure 2-3: 9 R's of CE (Circular Australia, 2023)

2.3.3 Net Zero Emissions

Climate change is affecting communities across Australia and across the globe. The NSW Government's *Net Zero Plan Stage 1: 2020-2030*[5] is the foundation for the State's action on climate change and its goal to reach net zero emissions by 2050. It outlines the NSW Government's plan to act and protect our future in collaboration with industry, communities, and households. Delivery of the Plan is aimed at growing the economy, creating jobs, and reducing emissions to ensure NSW is well placed to prosper in a low carbon world.

The Plan aims to deliver a 50% cut in emissions by 2030 compared to 2005 levels as the first stage to achieving net zero emissions by 2050. By reducing emissions, local Councils can help to increase the resilience of their communities and function as a catalyst for NSW to meet its net zero emissions goals. Supporting this Plan is the EPA's *Climate Change Policy* and its companion document, the Climate *Change Action Plan 2023–26*[6], which sets out the roadmap for how NSW will achieve net zero.

NSW Councils have a key role in the shift to net zero emissions as leaders, place makers and through their connection to local communities. Council can support the transition through

[5] Net Zero Plan. Stage 1: 2020-2030 (nsw.gov.au)
[6] Climate Change Action Plan 2023–26 (nsw.gov.au)
[7] LGNSW, Sustainable Procurement Guide

reducing their own emissions across their operations and through the provision of essential services such as waste management, transport, planning and infrastructure for their residents and businesses.

Under the *Climate Change Action Plan*, Councils holding an environmental protection licence will be required to prepare climate change mitigation and adaptation plans (CCMAPs) and report on the effectiveness of their plans over time. The timing for the development and submission of these plans is to be determined.

2.3.4 Sustainable Procurement

Sustainable procurement takes into consideration the economic, environmental, social and governance impacts of any purchase with the four factors referred to as the quadruple bottom line and relate to a total purchase cost, and not just the upfront dollar expense.[7]

In terms of sustainable procurement practices, the following emphasise the entire life cycle of the product or service:

- Devising strategies that reduce demand and extend the life of the product.
- Planning what happens with a product at the end of the contract ie., how will it be reused, recycled, treated, or disposed.
- Considering costs over the life of the product or service and policies in the planning process.
- Encouraging sustainable solutions and innovation in tenders.
- Measuring and improving sustainability throughout the life of the procurement.

Approaching procurement sustainably allows Council and the waste management and resource recovery industry to meet economic, environmental, social and governance requirements, while improving opportunities for a more circular system across the entire supply chain.

3. CURRENT WASTE MANAGEMENT STRATEGIC DIRECTION

This waste strategy builds upon Council's current strategic direction. Key documents which have informed the strategy's position include:

- Community Strategic Plan - *Your Broken Hill 2040*, Broken Hill City Council, 2022.
- *2023/2024 Delivery Program and Operational Plan*.
- *Broken Hill Integrated Waste and Recycling Strategy* 2010-2030.
- *Broken Hill City Council Renewable Energy Action Plan 2020*.
- NetWaste *Regional Waste and Sustainable Materials Strategy 2023-2027*.

4. WHERE ARE WE NOW?

4.1 BROKEN HILL PROFILE

Broken Hill is the largest regional centre in the western half of New South Wales. It lies within a sparsely settled New South Wales outback, close to the South Australian border and midway between the Queensland and Victorian borders. The town, which is approximately 170km^2, is located more than 1,100 kilometres west of Sydney, the town has an estimated population of 17,624[8].

The population is anticipated to remain fairly constant over the next 20 years[9].

There are 10,578 residential properties present within the Broken Hill LGA[10]. Of these, 9,654 (96%) are Single Unit Dwellings (SUDs) and 363 (4%) are Multi Unit Dwellings (MUDs). An additional 561 other, non-residential and/or non-rateable structures as well as unoccupied private dwellings are also present across the LGA.

The top three (3) industries within the LGA are healthcare and social assistance (22%), mining (13%) and accommodation and food services (11%)[11]. The region is also home to a Renewable Energy Hub that includes Dubbo Solar Hub, Bodangora Wind Farm and the Nyngan Solar Plant and is part of the State's first Renewable Energy Zone (REZ) based in the Central-West Orana region.

Council is a member of NetWaste, a voluntary regional waste group delivering collaborative approaches to waste and resource management to 25 member councils in regional NSW.

NetWaste supports its member Councils by providing a platform Councils to collectively pursue regional benefits and improve outcomes related to waste management for its members. This includes facilitating close regional cooperation, operational and kerbside services contracting, resource and knowledge sharing and cultivating shared investment and planning infrastructure development opportunities.

4.2 CURRENT WASTE MANAGEMENT SERVICES AND INFRASTRUCTURE

Council provides weekly domestic kerbside collection services for residual waste in 240 litre bins and fortnightly combined food and garden organics (FOGO - bio bins) in 240 litre bins. This service is provided in-house. There is currently no collection service for co-mingled recyclables and residents can self-haul bulky items to the Broken Hill Waste Management Facility (WMF).

Council also provides a commercial collection service to a range of businesses, including businesses, service stations and restaurants. As noted in the Morrison Low report "Council's domestic waste service continues to be ranked as one of the highest services provided by Council for both importance and satisfaction by the community. This clearly indicates this service is meeting the needs of the community."[12]

As a service to the community, Council provides a special residual waste collection service. These bins have a yellow lid and are collected from the residence instead of the kerb. This

[8] Estimated 2023 resident population, per profile ID website, accessed August 2024.
[9] Estimated 2024 population of 18,880 and 2046 population 18,109 (a 0.59% increase), population forecast on Profile ID website, accessed August 2024.
[10] 2022-23 Annual Local Government Waste and Resource Recovery Data Survey.
[11] Based on total employment by industry 2022/23, Profile ID website accessed July 2024
[12] *Service Review – Waste Services Broken Hill City Council,* February 2023, Morrison Low.

service is available to adult persons who have a physical disability that precludes them from placing the mobile garbage bin at kerbside.

Table Table 4-1 provides an overview of the waste collection service provided by Council.

Table 4-1: Summary of Waste Collection Services Provided by Broken Hill City Council

	Domestic Service		Commercial Service
Item	**Residual Waste**	**FOGO (Bio Bin)**	**Residual Waste**
Bin size (L)	240	240	1.5, 2 or 3 m^3 bins
Collection frequency	Weekly	Fortnightly	Weekly
Households serviced	10,017	10,017	93
Special residual waste (yellow lid bin) households	144	NA	NA

Council owns and operates the Broken Hill Waste Management Facility (WMF), located at 1 Wills Street, Broken Hill. The landfill is licenced to accept general solid waste including putrescible and non-putrescible waste and has an estimated remaining capacity of more than 40 years. Material received at the facility comes from resident self-haul, Council works or projects, kerbside collection and the Commercial and Industrial (C&I) sector. A variety of waste management activities occur on the site, including:

- Community recycling centre drop off for:
  - Paint
  - Solvents
  - Household cleaners
  - Smoke detectors
  - Paint
  - Fluorescent light globes and tubes
  - Old gas bottles
  - Fire extinguishers
  - Aerosol cans
  - Printer cartridges
- Drop off for recycling, including:
  - Bottles and cans that are managed through the South Australian Container Deposit Scheme
  - Scrap metal
  - White goods
  - Cardboard
  - Metals
  - Timber
  - Batteries
  - Oils/oil filters
- Community drops off for FOGO and residual waste; and
- Disposal of residual waste in the landfill.

All of the items above can be dropped off at the WMF free of charge.

While FOGO is collected (with the exception of meat and dairy products), it is not currently processed. Instead, the material is stockpiled at the WMF and used as daily cover if needed.

Other waste initiatives include:

- Residents drop off for cans, bottles and other glass containers at Channing's Bottle Yard for recycling and receive 10c for each eligible container. This material is sent to South Australia for processing.
- The Broken Hill Tip Shop, located adjacent to the WMF operated by Lifeline, where residents can donate and purchase second hand goods.
- Printer cartridges, mobile phones, globes, smoke detectors and batteries can be recycled by dropping them off at select Council facilities.
- The hiring out of skip bins for local events.

Council currently does some education on waste services and initiatives, limited to participating in the 'Waste to Art' NetWaste initiative and using social media and the website for periodic posts.

4.3 WASTE MANAGEMENT CONTRACTS

Council uses the services of contractors for the shredding and processing of waste. They also leverage the Waste Oil regional contract managed by NetWaste for the processing of used motor oil. Table 4-2 provides details of these contacts.

Table 4-2: Details of Broken Hill City Councils Waste Management Contracts

Contractor	Description	Contract Start Date	Contract Expiry Date
Council Managed Contract			
JWL Services Pty Ltd	Green waste, mattress and tyre shredding	Not applicable	Not applicable
Sims Metal	Collection of ferrous metals	August 2024	August 2025
NetWaste Regionally Managed Contract			
Cleanaway Waste Management Ltd	Collection of Used Motor Oil	September 2020	September 2024

4.4 CURRENT COUNCIL INITIATIVES

Council has a number of current waste-related initiatives that they are leading, as noted in Table 4-3. Some of these are one-off initiatives, while others are on-going.

Table 4-3: Current Waste Initiatives

Initiative/Project	Description
Council Initiative	
Recycling Bay Business Case	To further enhance the WMF's recycling capabilities, install a permanent concreted area for the recycling area.
Public Area Recycling Bins Partnership Pilot	Pilot the installation of 240L Yellow bins for recycling bottles and cans in public places, partnering with community groups such as Scouts, Landcare, and Girl Guides. Each group would be responsible for emptying, sorting, and 'cashing in' what is collected, with the funds collected going towards supporting these groups

Initiative/Project	Description
Capacity and Succession Planning	To support long-term plans to build staff capability and capacity around succession planning and career development, complete a full capability matrix analysis on current staff to identify skills gaps for future training and recruitment needs.
Waste Education	Participant in the Wambangalang Environmental Education Centre program, an NSW school's environmental education initiative. Council delivered a number of sessions to local school children with a focus on waste sorting and reuse.
NetWaste Regional Initiatives	
Regional Waste Aggregation Profile (WAP) project	All NetWaste Councils involved in providing data, with the report submitted to all Councils.
Waste2Art	A community art exhibition and competition aimed at educating, informing, and challenging the way society looks at waste.

4.5 PREVIOUS ACHIEVEMENTS

Previous achievements and improvements to Council's waste management system include:

- CBD waste bin upgrade, whereby the existing smart bins were replaced with new bins and surrounds to address operational issues.
- Assessment of the feasibility of replacing the current dark green residual waste bins with red lids to meet the Australian standards for the different waste material collected eg red lid garbage, green lid organics (2023).
- A Waste Services Review to identify areas for improvement, which included an assessment of the feasibility of introducing a kerbside co-mingled recycling service (2023).
- Introduction of fee-based disposal charges for domestic waste loads to reduce the amount of waste disposed in landfill to facilitate improved source separation (2019).
- Installation of a weighbridge and construction of a Community Recycling Centre at the WMF for collection of domestic hazardous waste (2015).
- Construction of a Waste Transfer Station, designed to divert traffic to the designated drop-off areas (2019).
- Installed Clearweigh weighbridge software (replaced Accuweigh software) in 2019.
- Unloading bays for waste material to be transported to the landfill cell were also installed in 2019.
- A drop off location for select hazardous domestic waste items was implemented at the main Council administration building.
- Undertake an annual review of waste facility pricing.
- Developed tipping fees for Council waste operations ($/ tonne) and applying them to each waste service line to capture full costs for that service line.
- Added requirement to construction contract documents that all fills taken out of council project works is be transferred to the waste facility, which will be used as cover material for operations.
- Introduced regular reporting on the status and planning for landfill operations for both short term and longer-term direction to improve transparency on status.

4.6 WASTE SERVICES REVIEW

Council commissioned Morrison Low to undertake a service review of Waste Services in 2023.

One of the key outcomes included that Council should not implement a domestic co-mingled recycling service due to the number of uncertainties NSW Councils are and the recycling industry facing at this time, including:

- The impact of the China Sword, a ban on the importing of mixed recyclable materials which has resulted in a significant shift in the recycling market.
- The introduction of the NSW Container deposit scheme (CDS) in 2017, which has led to a 20% drop in the tonnage of recyclables glass, aluminium and plastic containers in the domestic recycling stream.
- Uncertainty around the impact of the impending expansion of the CDS to include containers that are not currently accepted, for example, wine bottles and other plastic bottles up to three litres.

The report also noted that tyres are a particular problem for Council, due to the quantity received, cost to process and EPA licencing conditions, which state that the tyre stockpile is not to exceed 450 Tonnes. Council has received over 600 tonnes of tyres over the last three (3) years.

Given the cost to transport them to an approved Tyre Stewardship Australia (TSA) accredited provider for recycling is prohibitive, the only viable, but still expensive, option for Council is to shred the tyres onsite at the WMF for use as a landfill cell wall. While options are being explored to find a more cost-effective solution, based on experience, simply increasing the gate fee on tyres often leads to illegal dumping or illegal stockpiling on other lands.

Other findings and recommendations from the report included:

1. Consider developing tipping fees for Council waste operations ($/ tonne) and applying them to each waste service line to capture full costs for that service line.
2. Review position descriptions and reporting lines for Waste Services.
3. Colour coding of the residual waste MGB lids to meet national standards for Council to consider.
4. Continue to build and develop relationships with third-party service providers to receive and transport recyclable material from the CRC and recycling centres.
5. Introduce regular community and Council reporting on status and planning for landfill operations for both short term and longer-term direction to improve transparency on status.
6. Develop a Domestic Waste 10-year Long Term Financial Plan (LTFP) to identify future funding and impacts on fees and charges for Domestic Waste services.
7. Consider implementing the use of GPS and load cells to assist in monitoring Heavy Vehicle National Law Chain of Responsibility (HVNL CoR) compliance.
8. Review the role of coordinators and leading hand to ensure adequate systems and processes are in place to meet requirements for workplace health and safety (WHS) compliance, such as WHS site audits, risk assessments.
9. There is an ongoing need to regularly undertake a risk and operational needs analysis on the requirement for a transfer station attendant to assist the public to direct vehicles during times of high visitation at the community drop off centre for recyclables, hazardous and problem wastes and the loading of skip bins.
10. The sourcing of suitable cover material continues to be a challenge to remain compliant with license requirements (and will be considered in the revised Landfill Environmental Management Plan).

11. Conduct a compositional waste audit on the residual and organics bins to assist Council in making an informed decision on how to improve the diversion of recyclables and organics from landfill.
12. To support long-term plans, complete a full capability matrix analysis on current staff to identify skills gaps for future training and recruitment needs.

Council has reviewed these recommendations and implemented recommendations 1 to 5. Recommendations 6 to 12 will be further considered in the development of the Strategy.

4.7 FUNDING OF WASTE SERVICES

The funding of Council's waste services is from the domestic waste management charge (DWMC) and user fees and charges, with the 2023 Morrison Low report noting that the current charge is less than comparable NSW country councils. The Broken Hill WMF is funded from user charges, including domestic waste from Council's collection service.

Commercial red bin collection is provided to the commercial and industrial sector by Council on a fee for service basis.

The DWMC for 2023/24 is $339 for a two-bin service.

4.8 WASTE GENERATED AND MANAGED BY COUNCIL

Data from the FY 2020/21, 2021/22 and 2022/23 Waste and Resource Recovery (WARR) Surveys and Facility Data Reports submitted to the NSW EPA by Council were used to determine the 3-year (3) average for waste generated within the LGA and managed by Council.

Table 4-4 outlines the total waste, in tonnes, managed and processed by Council on average across the three (3) fiscal years.

For the purposes of analysis, the waste has been broken down into three (3) distinct sectors, as follows:

- Municipal Solid Waste (MSW) – residential/domestic (kerbside and self-haul waste).
- Commercial and Institutional (C and I) – businesses and institutions such as schools.
- Construction and Demolition (C and D) – construction and demolition waste.

Table 4-4: Average of Waste Managed by Broken Hill City Council – FY20-21 to FY22-23

	Waste (Tonnes)	Waste (%)
Generated: MSW	15,847	36%
Generated: C and I	2,533	6%
Generated: C and D	25,299	58%
Processed: Disposed	16,259	37%
Processed: Diverted[13]	768	63%

[13] The diverted tonnage includes Clean Recycling, Resource Recovery, Onsite Re-Use and Stockpiled On-Site

Managed: within Council Area	42,883	98%
Managed: Outside of Council Area	795	2%

The waste generated, processed and managed within the LGA are further outlined within sections 4.8.1 to 4.8.3.

4.8.1 Waste Generated

Table 4-5 further breaks down the MSW, C and D and C and I generated waste tonnages within Table 4-4. As can be seen, MSW generates the largest amount of clean sorted recycling of all three (3) sectors, with FOGO making up the largest contribution.

Table 4-5: Waste Generation Breakdown per Stream (Tonnes)

Waste Stream	MSW	C&D	C&I
Mixed Waste	12,216	874	1,590
Other Waste Streams for Disposal	27	0	943
C&D Waste for Sorting/ Disposal	21	24,424	0
Clean Sorted Recycling	2,776	0	0
Other Sorted Recycling	807	0	0

Figure 4-1 provides a breakdown of kerbside generation rates for residual waste and FOGO, on a kg/hh/week basis, for the three (3) fiscal years, as well as an average generation rate.

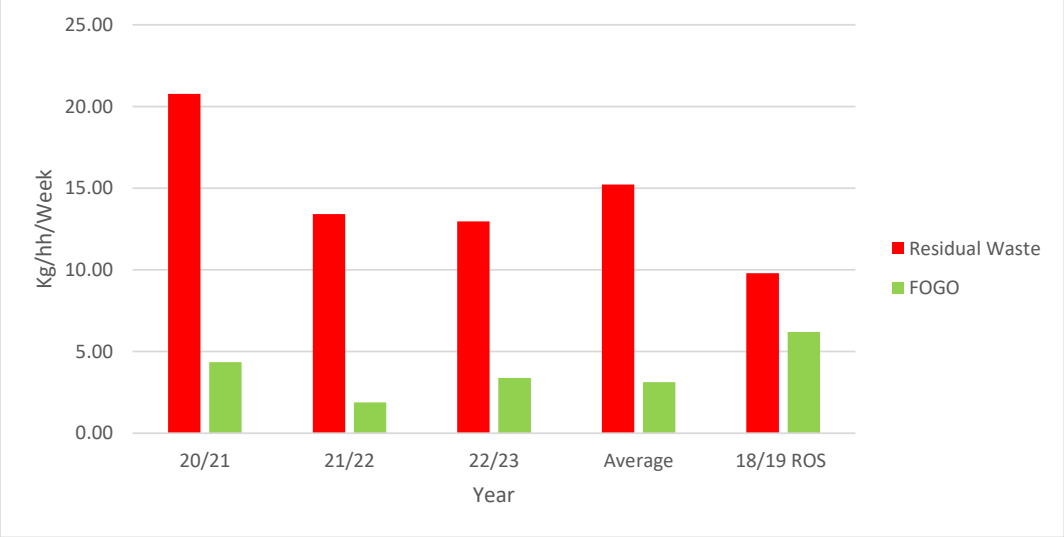


Figure 4-1: Kerbside Residual Waste and FOGO Generation Rates By Service (kg/hh/week)

As can be seen, there has been a sharp decline in the amount of kerbside residual waste generated by households from FY 20/21 to FY 21/22. This amount has remained relatively unchanged from FY 21/22 to FY22/23. FOGO generation rates are more consistent, with all years below 5kg/hh/week over the three (3) year period. When considering the Rest of State (ROS) data, kerbside residual waste generation rates for Broken Hill are consistently higher, with the FOGO generation rates being consistently lower.

4.8.2 Waste Processed

For the purposes of analysis, waste streams have been identified based on the type of processing it undergoes, as follows:

- Disposal – landfilled at the Broken Hill WMF.
- Clean Recycling – source separated material delivered to the Broken Hill WMF.
- On-Site Reuse – source separated material delivered to the Broken Hill WMF and reused on-site in operations.
- Stockpiled On-site – source separated material delivered to the Broken Hill WMF and stockpiled on-site.

Figure 4-2 further breaks down the waste processing tonnages within Table 4-4. The diverted tonnages, shown as Clean Recycling consisted largely of scrap metal. Tonnages included in On-Site Reuse is predominantly soil - not VENM, with a smaller contribution from bricks, concrete and terracotta and other materials. Martials that are stockpiled on-site predominantly include kerbside FOGO, self-haul garden organics, wood, trees and timber and other material. Smaller amounts of tyres and mattresses are also stockpiled.

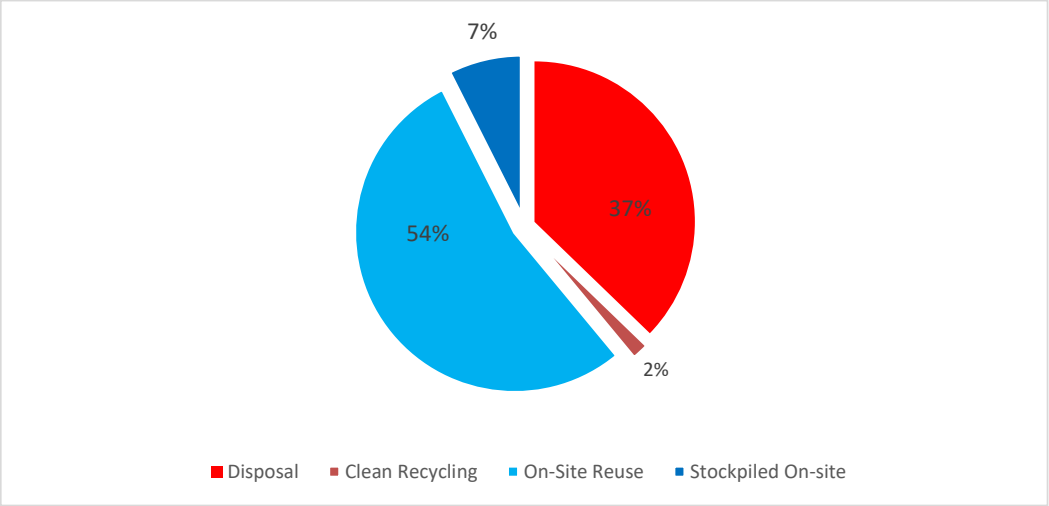


Figure 4-2: Waste Stream Processing Percentage Breakdown By Stream

4.8.3 Waste Managed

Table 4-6 breaks down the management of waste tonnages based on location of where it is managed ie managed within the Broken Hill LGA or outside the LGA. All the waste managed within the Council area is managed at the Broken Hill WMF, with all waste managed outside of the LGA being sent to South Australia for processing at commercial facilities.

Table 4-6: Waste Management Breakdown by Management Entity (3-Year Average Tonnes)

Waste Managed By	Within LGA	Outside of LGA
Council	42,883	0
Commercial Entity	0	795

As can be seen, BHCC manages the majority (98%) of the waste generated within the LGA, with a small portion being sent outside the LGA for processing by a commercial entity. These included predominantly scrap metals and a smaller number of batteries.

4.8.4 Waste Diversion and Resource Recovery

Council recovers some materials from its waste stream eg metals and batteries, while it beneficially reuses others on-site as part of site operations at the WMC eg soil and concrete. It also stockpiles some other materials on-site eg FOGO and timber.

Considering the materials that are recovered, that is, those materials that are processed to recover resources, the resource recovery rate is 2%. When considering waste diverted from landfill, which includes materials that are recovered plus those that are beneficially reused on-site and stockpiled on-site, this rate increases to 63%.

4.8.5 WaSMS Targets

The NSW WaSMS includes a number of targets for Council's to work towards. These include:

- 10% reduction of total waste generated per person by 2030 – a reduction in total waste generated of 1,585 tonnes/year would be required to meet this target.
- 80% average recovery rate from all waste streams by 2030 – when considering all waste diverted from landfill ie. materials classified as Clean Recycling, On-Site Reuse and Stockpiled On-site, an additional 7,500 tonnes/year would need to be diverted. Or when considering waste that is sent for external processing ie. leaving site to be resource recovered, this amount increases to an additional 34,175 tonnes/year.
- Halve the amount of organic waste sent to landfill by 2030 – to meet this target, an estimated 1,500 tonnes/year of FOGO would need to be removed from the residual waste stream, for example, organics in kerbside residual waste, self-haul waste and biosolids that are landfilled.

4.9 WASTE GENERATION PROJECTIONS

4.9.1 Business As Usual

Kerbside waste projections were developed for FY 2024/25 to 2041/42 and are based on the 2020/21, 2021/22 and 2022/23 WARR Surveys and Waste Facility Data Reports submitted by Council and on an average annual population growth rate of 0.03%[14]. Between 2024 and 2041, the population of the Broken Hill LGA is projected to remain constant. Figure 4-3 shows the kerbside waste projections for residual waste and FOGO over the period FY 2024/25 to 2041/42.

As can be seen, there is a slight increase in both the amount of residual waste and FOGO generated over the next 17 years, with the amount of residual waste generated remaining steady at approximately 7,500 tonnes/year over this time.

[14] As directed by Council and based on population forecast on forecast.id.com.au for Broken Hill City, accessed August 2024.

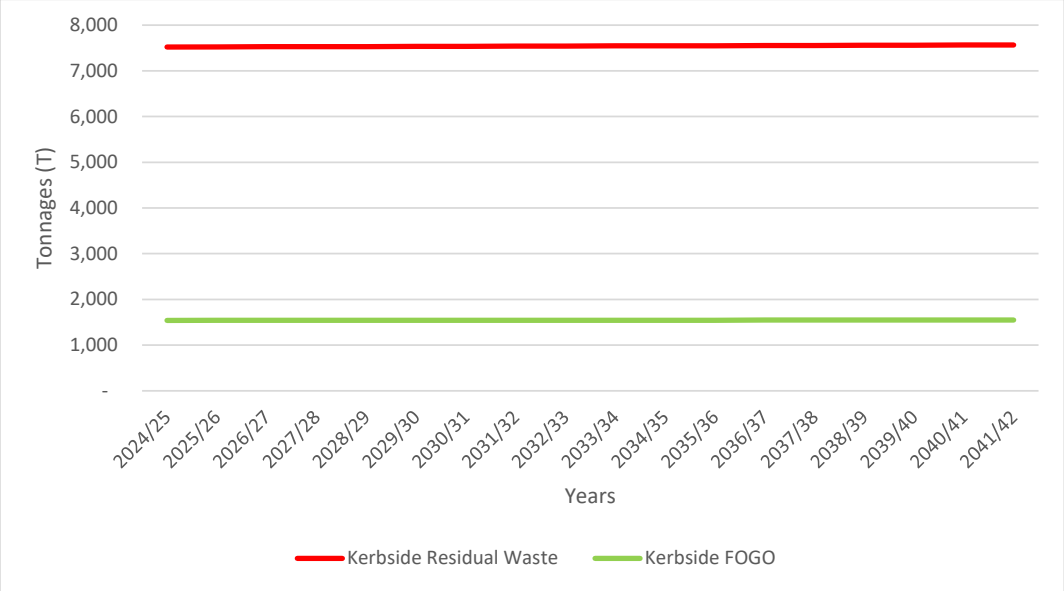


Figure 4-3: Kerbside Waste Projections

As can be seen in Table 4-7**Error! Reference source not found.**, the projected total kerbside waste in 2041-42 remains effectively unchanged between FY 2024/25 and FY 2041/42, in line with a flatlining of population growth over this period, assuming current waste management practices and services remain unchanged ie. 'Business as Usual' (BAU). The projections do not consider the implementation of any efforts to reduce or avoid waste, per the State's WaSMS target.

Table 4-7: Five Yearly Kerbside Waste Projections (Tonnes)

Waste Stream	2024/25	2029/30	2034/35	2039/40	2041/42
Kerbside Residual	7,521	7,534	7,547	7,560	7,565
Kerbside FOGO	1,540	1,543	1,545	1,548	1,549
Total Waste	**9,061**	**9,077**	**9,093**	**9,108**	**9,115**

4.10 FUTURE CAPITAL WORKS PROJECTS IMPACTING WASTE GENERATION

A number of capital works projects in the region will be initiated in the next couple of years that will impact the quantity of waste delivered to the WMF. These include the following projects:

- Willyama High School demolition and reconstruction – approximate start date is the end of 2024/ start 2025.
- Warnock Steet Depot Stage 1 reconstruction – end of 2024.
- E.P O'Neill Memorial Park reconstruction Stage 2 – mid to late 2025.
- Road reconstruction projects – currently completing approximately two (2) per year.
- Hydrostor Energy Project: construction phase – construction will begin late 2024, quantities unknown at this stage.

In addition, the remainder of the Bindarah train crash waste, anticipated to be approximately 50 tonnes, will be disposed at the WMF in 2024.

These anticipated waste streams will require processing or disposal at the Broken Hill WMF, which may have future impacts on infrastructure requirements. Consideration should be given to managing these large quantities of waste through a more circular lens, for example, processing certain materials to a reusable green specification for resource recovery.

4.11 TOURISM WASTE

Broken Hill hosts the 3-day (3) Mundi Mundi Music Festival each year, which attracts around 14,000 visitors. Events such as this create additional pressures on local waste management services and disposal capacity. This can impact Council as they are required to supply the bins and staff to service the waste management needs of the festival.

4.12 ISSUES AND CHALLENGES

Council faces a number of issues and challenges that impact how waste is managed, which are described below.

Issues are considered to be those that impact Council which they do not have the ability to directly influence or change the outcome of, whilst *Challenges* are considered to be those that Council has the ability to influence in some capacity and possibly change the outcome of.

4.12.1 Issues

4.12.1.1 Isolation

Broken Hill is located in the far west of New South Wales, close to the South Australian boarder. Moving east to west, the availability of local waste processing facilities becomes more limited. Distances to transport materials for processing or to reach end-markets becomes greater, and with this greater distance, more expensive. At the same time, Councils in the western part of the state tend to have lower populations and an associated lower rate-based income compared to urban areas.

In addition to the higher costs to provide waste services, the remoteness of Broken Hill to urban and regional centres means Council faces a number of additional different waste management issues, including:

- Smaller waste budget – meaning that the full suite of kerbside services is not provided ie. only general waste and FOGO collection is offered, no recycling service is provided. In addition, there is no processing of FOGO, rather it is simply stockpiled at the WMF.
- Lack of local or regional waste management services and facilities – this includes waste collection and shredding services as well as Materials Recovery Facilities (MRFs), Organics Resource Recovery Facilities (ORRFs) and return and earn vending machines rolled out under the Container Deposit Scheme (CDS).
- Reduced economies of scale – given the vast distance between Councils in the far west, many communities are not able to pool their resources to realise efficiencies to collect, process and dispose of waste.
- Diminishing interest by service providers for waste collection and processing – outside of metropolitan and larger regional areas, the number of waste management service providers for collection and processing is much lower. This can have the effect of creating monopolies, which ultimately impacts the price as there is effectively no competition during the procurement process. Or simply, there is no interest from service providers to provide waste services to more remote communities, presumably because it is not profitable to do so given population and remoteness of these communities.
- Staffing levels – more remote western Councils tend to have minimal levels of staffing, with staff responsible for multiple areas, not just waste.
- Expectations for waste services to the community - isolated Councils have significant flux of professionals, such as police and teachers, often with city-based expectations of

kerbside waste services. When Councils are not able to provide these services, frustration can result.

4.12.1.2 Recent and Emerging Waste Policy

There are a number of policy and legislative initiatives which significantly impact the management of waste. Briefly, these include:

FOGO Mandate: Under the Waste and Sustainable Materials Strategy 2041, the NSW Government has set out goals of halving organics (including food waste) going to landfill and achieving net zero emissions from organics in landfill by 2030. To help achieve this, NSW proposes to mandate food organics (FO) collections for certain businesses from 1 July 2025 and food and garden organics (FOGO) for households from 1 July 2030. It will also mandate reporting requirements for large supermarkets of surplus food donations to food charities. Local councils will be the appropriate authorities to monitor and enforce compliance with the business mandate, unless exemptions apply under section 6(2) of the *Protection of the Environment Operations Act 1997* (eg. the EPA would be the appropriate regulatory authority for activities carried on by the State or a public authority).

It is proposed that the household mandate will apply to all local government areas within NSW ie. it would apply to all councils across NSW but would not apply to Lord Howe Island or the Unincorporated Area of NSW. There will be court imposed maximum penalties and fines for councils to deter non-compliance with added penalties for continuing offences. It is proposed that the EPA will have discretion to grant exemptions from the mandates whether generally or in specified circumstances and whether from the entire mandate or certain parts of it. The EPA will be the appropriate regulatory authority for enforcing compliance by councils.

Waste Levy Policy: The NSW Waste Levy (s88 Levy) is legislated under the *Protection of the Environment Operations Act 1997* (POEO). In operation for almost 50 years, the levy is a market-based tool designed to incentivise resource recovery and recycling over landfill disposal. Broken Hill City Council currently lies outside the geographic area in NSW which charges a levy for disposal of waste to landfill.

Levy reviews have been periodically ongoing over the last ten years, with the most recent closing for comments on the Issues paper 15 July 2024. Reviews have been recommended to be undertaken every five (5) years by the NSW Auditor General to ensure the levy continue to deliver its policy objective. Reviews at least consider the quantum of the levy paid and the levy area boundaries, whilst the relative rate of returned funds back to industry to support recycling and resource recovery initiatives has been a source of unease with local government.

The latest review takes place against a backdrop of continually increasing waste generation and plateauing recycling rates. Remaining landfill volume space available within the greater Sydney region is running out, and the state is embarking on consolidated efforts to stimulate the development of a circular economy.

Climate Change Policy: In February 2023, the NSW EPA's Climate Change Policy and *Climate Change Action Plan 2023–26* were finalised. The Policy and its Action Plan[15] are intended to support the existing framework, strategies, and policies for NSW to reach its target of a 50% reduction in greenhouse gas emissions (GHG emissions) by 2030 and net zero emissions by 2050. If fully adopted, Councils with Environment Protection Licences (EPLs) will be subject to additional requirements to support Policy, including survey participation, the preparation and implementation of Climate Change Mitigation and Adaption Plans (CCMAPs) and the updating of Pollution Incident Response Management Plans (PIRMPs) to specifically consider climate-

[15] The three key pillars of the Policy are Inform and Plan (by the NSW EPA), Mitigate greenhouse gas emissions, and Adapt to build resilience to a changing climate.

related risks. CCMAPs will require the licence holders to demonstrate that they have considered how they can minimise their greenhouse gas emissions and exposure to climate risk. Mitigation measures are those actions taken to reduce and curb greenhouse gas emissions, while adaptation measures are based on reducing vulnerability to the effects of climate change. The impact of these and compliance required are only starting to be understood[16].

There is also a shift towards the Circular Economy and an emphasis on removing organics from the general waste stream and harnessing the opportunities that this presents in terms of creating renewable energy and improving resource recovery.

Despite this, more "pull through" policy and market mechanisms (that is, real product value) is required rather than "push through (that is, policy unsupported by commercial value). The legislative space will continue to evolve over the coming years, with Councils being at the forefront of these changes. Staying abreast of the changes and the resulting requirements and implications is paramount for Council.

PFAS Policy: per- and poly-fluoroalkyl substances (PFAS) are manufactured chemicals used in products that resist heat, oil, stains, and water. Now a world-wide issue, particularly as lower levels of detection are possible, PFAS environmental contamination and risks to human health are quickly impacting eligible materials criteria for FOGO composting in NSW. For example, cardboard packaging such as pizza boxes, wrappers, bags, and bowls now cannot be processed with organics. This has significant impact on the fate of food-contaminated cardboard packaging which was previously processed with organics when too "dirty" to be recycled, pushing all to disposal unless more innovative solutions are not found. Major supermarkets preparing to move away from plastic to paper packaging have put these initiatives on hold, contributing more waste to landfill.

The current NetWaste regional position on PFAS is that Councils participating in organics kerbside collection are to conduct their collections as normal with no reference to compostable fibrous material as an input (other than compostable liners if applicable).

The messaging from the EPA centres around the clear use of the acronyms such as FO (food organics) GO (Garden Organics) and FOGO (Food and Garden Organics). The EPA has informed all voluntary regional waste groups (VRWGs) that their contracted processor takes the risk regarding the inputs.

Councils are therefore to reinforce messaging in their chosen collection service as food and/or garden organics only – no paper or paper products. This will become an issue for consideration given the 2030 FOGO mandate by the NSW EPA and Council's current approach to managing FOGO.

Rate-Based Pricing Policy: The Independent Pricing and Regulatory Tribunal, NSW (IPART) decides each year whether to set a maximum percentage ('waste peg') by which NSW councils can increase their domestic waste management (DWMC) annual charges.

For the near future, IPART has adopted the NSW Office of Local Government (OLG) approach to regulating DWMC through it providing further guidance ("pricing principles") to local government and investigating those possibly imposing unjustifiably high charges on their communities. However, increases in general rates charges for local governments across NSW are now variously limited in consideration of their population growth.

[16] The NSW EPA are yet to prepare a guideline for preparing CCMAPs.

This provides relief to local governments who were very much not in favour of rate peg being applied specifically to the DWMC component of rate charges, which could have significantly impacted waste service delivery.

Disaster Waste and Resource Recovery Management Plans: Disaster Waste and Resource Recovery Management Plans (DWRRMP) outline key roles and responsibilities, communication processes, key actions and decision points, guidance on specific temporary arrangements for waste transfer and data collection and reporting with relation to waste generated by disasters. They may also be supported by a more strategic plan which assesses risks and builds resilience to these events.

From July 1, 2023, the Australian Government's Disaster Ready Fund has taken over as the primary fund, providing $1B over five (5) years.

Emergence of Monopolies

A growing monopoly of operational waste services, particularly for processing co-mingled kerbside recycling collections, exists in NSW. This proved itself to be a significant issue once the effects of China's *National Sword* policy were felt in Australia.

Lack of Government Engagement with out-of-metro Councils

Development of any new government policy requires extensive and meaningful consultation with all stakeholders, to ensure different experiences and perspectives are considered and incorporated in new policies. It also requires adequate funding to support implementation and deliver change. Mechanisms need to be put in place that incentivise businesses to establish outside of the most populous urban centres, supporting all local governments in their advancement of their waste management goals and services.

Anecdotally, many regional and rural Councils describe themselves as "end of pipe" waste managers; effectively having to manage a widening array of waste types within what is still a highly disposable economy.

Policy Immaturity

With the implementation of any new policy comes a lag in the supports required to effect meaningful change. This is particularly relevant with regards the recent shift in the waste sphere, with expanded waste management and climate change responsibilities falling to Councils without the necessary funding and/or infrastructure and staff resources in place to implement initiatives.

All levels of government procurement, from local to national, need to implement support sustainable mechanisms that encourage innovation, drive increased recovery of more materials and close the loop on current waste systems and practices. This, over time, will see the gradual shift to a circular economy.

4.12.2 Challenges

Funding for Waste Services

In general, councils believe that they are being asked to do more with less resources within the waste management space. Ever increasing compliance requirements will place additional pressure on limited staff resources, particularly those related to climate change. Budget pressures are likely to be exacerbated with a predicted stagnation in future population growth in the Broken Hill LGA.

Increasing Cost of Providing Resource Recovery Services

The commercial value of some materials diverted from landfill, particularly recyclables, is decreasing. Currently, glass is an example of this – processors are getting little return, with the material essentially worthless from a monetary perspective at this point in time. It is also very heavy, therefore expensive to collect. The lower value of recyclable materials collected by Councils is leading to less revenue being generated, with the difference being borne by rate-supported budgets. The general failure by local government generally to negotiate a shared return from the CDS and the impact of China's National Sword policy have similarly affected the nett cost to Councils of providing a kerbside recycling service.

In addition, the delivery of FOGO services across the state in response to the NSW government's mandate for domestic populations to be serviced by 2030 is adding further cost to local government.

Natural Disasters and Emergencies

Natural disasters such as storms, floods and bushfires are occurring with increasing frequency and intensity and the prediction is that this pattern will continue in the future. Multiple jurisdictions participate in responses to these events, with Councils playing a significant role in both the initial disaster response and clean-up and recovery effort.

Communities impacted by a natural disaster can see significant amounts of material sent to landfill as part of the recovery process. In some cases, the landfill or access to the facility may also be impacted. Regular waste collection services may be impacted, with processing facilities or transport routes also being affected. Similarly, major emergencies, such as trail derailments or fires can also lead to significant quantities of waste that require landfill disposal.

It is important to have a management plan in place in response to natural disasters that outlines waste management roles and responsibilities for key organizations and how waste will be managed. It is also critical that mitigation plans are in place in cases where the landfill or transfer station sites are not accessible.

The global COVID-19 pandemic saw a fundamental shift in the lives of people all around the world. People were and continue to work from home on mass, mask wearing became the norm in many instances and the use of single use PPE and other items skyrocketed. In addition, buy, swap and sell opportunities all but disappeared. All of these had an impact on where waste was being generated, the type of waste and amount of it. It remains to be seen how this trend will evolve as communities become more used to living with the virus and things such as mask mandates and work from home orders become outdated.

Clean Energy Infrastructure

From a waste perspective, regional infrastructure projects, specifically those related to clean energy, for example, solar and wind development[17] are impacting Councils in a number of ways[18], including:

- Perversely, the very Councils isolated most by distance or limited by resources are the ones facing greatest pressure to manage waste from these developments.
- A significant portion of hardware is manufactured in China, and Australia, let alone local government, has no control over the readiness of hardware for reuse within a local circular economy.

[17] Going circular in clean energy – Issues Paper, January 2023, NSW State Government.
[18] Excluding development within the Parkes Special Activated Precinct (SAP).

- It is generally cheaper to replace damaged hardware than fix it, generating more waste.
- Little consideration is given to waste generation during construction of the clean energy development, and local management of damaged, broken or end-of life hardware is reported by member Councils with clean energy developments within their LGAs.
- Waste from clean energy technologies is growing eg Australia's battery waste is growing at 20% per annum.
- Collection services are limited in Australia due to geography, size of recycling market etc. Problems also with storage especially batteries and lack of separation and sorting for end of use products eg solar panels and batteries.
- Rapid innovation of clean energy technologies works against recycling. Technology is constantly evolving to be cheaper and more efficient, but this means there's caution in capital investment for recycling as products change and challenges arise in harvesting valuable materials.
- Australia lags behind Europe and US in recycling and reuse of some of these products; industry reports the problem will likely be exacerbated given the relatively short useful asset life of wind turbine blades and batteries, and take-up of rooftop solar, pushing much to landfill.

5. WHERE DO WE WANT TO GET TO?

This section developed the strategic direction of Council's waste services for the next 10 years. It was built upon an assessment of current performance and considers drivers for change within the industry's current policy and regulation setting.

Given Council's focus on sustainability, and the parallel development of its Sustainability Strategy, a sustainable approach to improvement in outcomes from waste services was selected to guide development of the new waste strategy.

Whilst Sustainability may have many components, but is herein implied to at least include:

- Environmental
- Sustainability
- Circular retention of resources within reusable materials.

5.1 STRATEGIC DIRECTION REPORT

A Strategic Direction Report was initially prepared and provided to Council for review and feedback. It included an analysis of current performance of Council's waste services, its prior strategic direction, specific issues and challenges faced by Council in delivering its waste services, and a detailed consideration of state legislation and policy driving improvement within the industry. The report generated a draft vision and draft strategic objectives for its new waste strategy to deliver and meet over the next 10-years, and a strategic framework with high level, draft actions (presented as options) to be delivered within its future services to drive this improvement.

5.1.1 Strategic Vision

The vision ultimately agreed to without change for Council's new Waste and Sustainable Materials Strategy 2025-2035 is:

To maximise sustainable outcomes from delivered services through a collaborative, innovative and adaptive approach to waste management.

5.1.2 Strategic Objectives

The strategic objectives ultimately agreed to for Council's new Waste and Sustainable Materials Strategy 2025-2035 are:

- Reduce generation of waste.
- Increase sustainable recovery of resources from waste.
- Increase diversion of waste from landfill.
- Leverage commercial benefits of waste transformation locally.
- Limit the impact of waste management on the natural and built environment.
- Support development of regional collaboration for improved waste management planning and investment.
- Support development of innovative circular economy mechanisms and solutions.

6. HOW ARE WE GOING TO GET THERE?

This section developed the strategic framework for the new Waste Strategy. Its primary function was to ultimately produce strategic actions capable of delivery positive change to Council's waste services.

6.1 STRATEGIC FRAMEWORK

With agreement, Talis developed the strategic framework for Council's new Waste Strategy, consciously aligning it with the Themes and Priority Areas of the state's own Waste and Sustainability Strategy 2041, and as far as practicable, also aligning it with the framework of the voluntary regional waste group NetWaste, of which Broken Hill Council is an active member.

NetWaste remains an effective advocate for all its member Councils whose communities are often isolated by long distances within such a vast area of regional NSW. Regional initiatives delivered by NetWaste can greatly benefit Council, whilst the alignment of strategies can only strengthen their combined opportunities for funding assistance and program delivery.

The framework agreed to without change for Council's new Waste and Sustainable Materials Strategy 2025-2035 includes Vision>Strategic Objectives>Action Areas>Strategic Initiatives>Actions.

6.1.1 Action Areas

Four (4) action areas were selected which completely align with NetWaste. These include:

- Avoid and Reduce Waste – actions to reduce minimise generation of waste.
- Increase Resource Recovery – actions to increase resource recovery of waste delivered to Council's Waste Management Facility.
- Sustainable Operations – actions to ensure Council's waste services are sustainable over next 10 years.
- Increase Resilience – actions to ensure Council's waste services are as resilient as possible to the impacts of changing regulatory and policy conditions within the industry, changing climate conditions, whilst making the most of opportunities available from a regional approach.

6.1.2 Strategic Initiatives

Eleven (11) broad strategic initiatives were developed, each residing within one of the Action Areas. These provide a higher-level approach to delivering change, and each include specific Actions to deliver specific positive change.

The strategic initiatives developed were:

- Develop a waste awareness and education strategy.
- Improve waste management planning and development approvals outcomes.
- Support waste avoidance initiatives.
- Increase resource recovery at the Waste Management Facility.
- Support development of a circular economy.
- Support sustainable procurement.
- Improve waste data.
- Improve operations.
- Protect the environment.
- Deliver new Waste Strategy.
- Ensure sustainability of waste operations.

6.1.3 Actions

Actions are specific, targeted, deliverable commitments by Council to improve its waste services. They have a delivery priority based on an assessment process conducted, a high-level indication of financial resources required to support their delivery, and a method of continual assessment and feedback to ensure progress and success of their delivery can be monitored and improved (if required).

Initially developed as options, they became actions following an assessment process.

In total 25 actions were eventually developed, with 14 of the highest rating of these selected for delivery within the first five years of the new Waste Strategy's delivery program.

Their planned delivery is detailed within the supporting Action Plan discussed within Section 7.

6.2 COUNCIL WORKSHOP

An initial workshop with Council's Waste Officers discussed the Strategic Direction Report and the strategic direction proposed.

Feedback provided further developed strategic initiatives and options within them, preparing for a more detailed and refined presentation of the draft strategic framework to Council's elected members.

6.3 COUNCILLOR WORKSHOP

A secondary workshop with the elected members was chaired by Council's General Manager. The strategic framework was discussed in detail and opportunity provided for any subsequent comments of feedback following the workshop.

6.4 ASSESSMENT OF DEVELOPED OPTIONS

Strategic options from the second workshop were then assessed for ability to deliver the strategy's vision and objectives using multi-criteria analysis (MCA).

Within the analysis, criteria based on the strategy's objectives were first weighted to as a reflection of their assessed relative importance in delivering positive change. The assessed ability of each option to deliver against each criteria was recorded as a raw score. Raw scores were multiplied by the weighting of each criteria to produce a total weighted score for each option, before being converted to a relative percentage for assessment.

By agreement all assessed options were retained as actions following the assessment, but only 14 of the possible 25 retained as actions for the first 5-year (5) period of the Action Plan.

The assessment was point-in-time and lower rating actions, or those assigned a lower priority as they received an overall lower weighted score, may be more favourable if delivery conditions within the LGA change over time. In consideration of this the role of the remaining 11 actions is presented within Section 7.

A copy of the analysis is provided within **Appendix B**.

6.5 COMMUNITY CONSULTATION

Specific content areas of the Final Draft Waste Strategy and its supporting Action Plan were put out for community consultation via a voluntary survey approach attached to Council's web site.

The survey was developed by Talis with agreement from Council, and a separate Feedback Report including recommendations to Council prepared.

7. STRATEGY DELIVERY

7.1 ACTION PLAN

An Action Plan was developed with feedback from Council. It was developed on the framework originally built for NetWaste but includes its own more specific strategic initiatives and their actions.

The Action Plan may be found within **Appendix C**.

The Action Plan includes 14 actions set aside for delivery within the first five (5) years of the Waste Strategy. A flexible, dynamic, and responsive approach to strategies encouraged by the NSW EPA has the remaining 11 actions are included within the Action Plan for use either:

- Post 2030, or conclusion of the first five (5) years of the Waste Strategy,
- If Council is able to successfully deliver the allotted actions before expiry of the first five (5) year period and has capacity with resources to deliver more, or
- If changes within the industry favour either taking on additional actions or swapping out some for others more relevant to changed conditions of operation.

Actions developed adhered to the SMART principle – that is, are Specific, Measurable, Achievable, Relevant and Time-Bound.

7.2 RESOURCING

The Action Plan includes financial resources to deliver the actions was assessed at a high level, dividing delivery into one of three cost ranges:

- Under $10,000
- $10,000 - $50,000
- Over $50,000

Actual cost of delivery will depend on in-house capability and capacity, and the eventual required role of contractors.

7.3 TARGETS

Targets within the Action Plan are the first step in assessing the success of an action, and alerting Council to review the performance of each action in delivering positive change.

Each Action Area includes reference to the state's targets and an overall annual measurement of success for Council.

APPENDIX A: POLICY CONTENT

National Framework

The Commonwealth Government has limited constitutional powers to engage directly in domestic waste management issues. This responsibility largely rests with State, territory, and local governments. The role of the Commonwealth Government has evolved in recent years as it has taken an increasingly strategic involvement in waste policy development.

National Waste Policy

The National Waste Policy – *Less Waste, More Resources* was released by the Department of the Environment and Energy in 2018 and provides a framework for collective action by businesses, governments, communities, and individuals until 2030.

The policy identifies five overarching principles underpinning waste management in a circular economy, including:

- Avoid waste.
- Improve resource recovery.
- Increase use of recycled material and build demand and markets for recycled products.
- Better manage material flows to benefit human health, the environment, and the economy.
- Improve information to support innovation, guide investment and enable informed consumer decisions.

The policy guides continuing collaboration between all Australian governments, businesses, and industry. It does not remove the need for governments, businesses, and industries to implement tailored solutions in response to local and regional circumstances.

National Plastics Plan

Australia's *National Plastics Plan*, released on 4th March 2021 aims to drive a closed loop supply chain on plastics and address plastic waste in a multi-pronged way, proposing wide-ranging initiatives such as plastic-free beaches, new labelling guidelines, eliminating expanded polystyrene consumer packaging fill and food and beverage containers, and greater consistency in kerbside bin collections.

Actions to achieve these goals under the plan will:

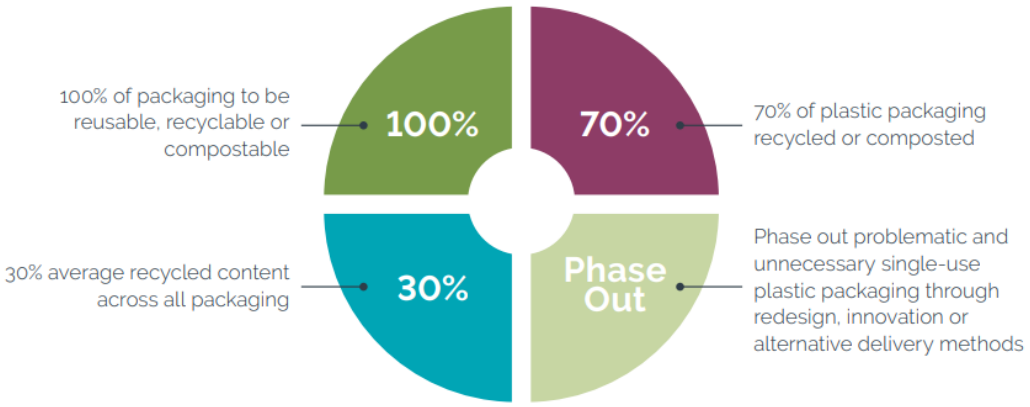
- Phase out the most problematic plastics between July and December 2022 and introduce National Packaging Targets by 2025.
- Work to make beaches and oceans free of plastic.
- Introduce legislation to ensure Australia takes responsibility for its plastic waste.
- Invest to increase recycling capacity.
- Research to find new recycling technologies and alternatives to unneeded plastic.
- Support the community to help Australia's recycling efforts.

Australian Packaging Covenant Organisation (APCO) – 2025 Targets

The Australian Packaging Covenant Organisation (APCO) is the entity in charge of managing and administering the Australian Packaging Covenant (the Covenant), which is a document that sets out how governments and businesses share responsibility for managing the environmental impacts of packaging in Australia.

The Covenant is agreed between the APCO, representing industry participants in the packaging supply chain, and commonwealth, State, and territory governments, and endorsed by environment ministers.

In 2018 Australia established the 2025 National Packaging Targets. See **Error! Reference source not found.**. These targets have been established to create a new sustainable pathway for the way packaging is managed in Australia.



2025 National Packaging Targets

Australian Packaging Covenant - National Waste Policy (environment.gov.au)

These targets will require a complete and systematic change in the way we create, collect, and recover product packaging. Targets will apply to all packaging that is made, used, and sold in Australia and are in line with broader sustainable packaging shifts that are taking place globally. These shifts are aiming to reduce the volume of material entering landfill, improve recycling rates, and increase the use of recycled material in future packaging.

The *Australian packaging consumption and recycling data 2018–19* report (APCO, 2021) shows improvements to packaging sustainability in a range of areas including a reduction in the volume of plastic (-6 percent) and an increase in the volume of recyclable packaging on market. Challenges continue to be the recycling rate of plastics, as whilst the recovery rate increased from 16 percent to 18 percent, considerable progress is still required to meet the 2025 target of 70 percent.

Emissions Reduction Fund

The Emissions Reduction Fund aims to reduce emissions by providing incentives for businesses, landowners, State and local governments, community organisations and individuals to adopt new practices and technologies. Legislation to implement the Emissions Reduction Fund came into effect on 13 December 2014.

There are many activities that are eligible to earn Australian Carbon Credit Units (ACCUs) under the scheme. One ACCU is earned for each tonne of carbon dioxide equivalent (tCO2-e) stored or avoided by a project. ACCUs can be sold to generate income, either to the Government through a carbon abatement contract, or on the secondary market. The potential waste management activities that may earn ACCUs include the introduction of a new or expanded purpose-built facility for processing solid waste that would have otherwise gone to landfill, to process commercial, industrial, construction, demolition and/or Class I or II municipal solid waste or use an enclosed composting facility. Councils and/or private industry that undertake these types of projects in accordance with the approved emissions reduction methods can then sell the resulting ACCUs to the Clean Energy Regulator or an alternate buyer on the secondary market. Council may consider the benefits of this approach within its longer-term strategic direction.

Waste Export Ban

In March 2020, the Australian, State and territory governments, and the Australian Local Government Association agreed to regulate the export of waste glass, plastic, tyres, and paper while building Australia's capacity to generate high value recycled commodities and associated demand. The *Recycling and Waste Reduction Act 2020* and new rules made under the Act set out the export controls for each type of regulated waste material. Exporters need to hold a waste export licence and declare each export in line with the phased implementation dates below:

- Regulated export of waste glass since 1 January 2021.
- Regulated the export of waste plastics since 1 July 2021.
- Regulated the export of waste tyres since 1 December 2021.
- Regulated the export of wastepaper and cardboard since 1 July 2024.

Waste glass, regulated since January 2021 is either that recovered from an industrial, commercial, or domestic activity or a by-product of an industrial, commercial, or domestic activity. Phase one of the plastic export's rules, operational since July 2021, limit the export of waste plastics to that sorted into single resin or polymer type or processed with other materials into processed engineered fuel. From 1 July 2022 you cannot export plastic that has only been sorted - all plastics will need to be sorted and processed.

State Framework

The NSW State framework provide the objectives, requirements, and directions for the management of waste. The legislation describes the requirements for transporting, storing, processing, managing, recovering, and disposing of waste and recyclable material.

NSW Waste and Sustainable Materials Strategy 2041

In June 2021, the NSW government released the *NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027* (WaSM) as the first stage in a 20-year plan that focuses on the environmental benefits and economic opportunities to reduce waste, improve its management, and increase material recycling. The NSW WaSM 2041 sets a long-term vision for managing waste, planning for infrastructure, reducing carbon emissions, and refocusing the way NSW produces, consumes, and recycles products and materials. The WaSM updates NSW's priorities for waste and resource recovery to reflect the *NSW Circular Economy Policy Statement*, the *Net Zero Plan Stage 1:2020–2030* and the *National Waste Policy Action Plan*.

To compliment the first stage of WaSM, the government also released the *NSW Plastics Action Plan* which sets out how problematic plastic materials will be phased out and the *NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs* which sets out the investment pathway required to meet future demand for residual waste management and recycling.

WaSM makes the case for change on the basis that NSW creates around one-third of Australia's total waste, and this is forecasted to grow from 21 million tonnes to nearly 37 million tonnes by 2041. At current rates of generation and recycling, the residual waste landfills servicing Greater Sydney are likely to reach capacity within the next 15 years. The non-residual landfills will reach capacity within the current decade. In some regional areas landfill capacity is also likely to expire this decade.

Demand for recycled materials, particularly from the household and commercial waste streams, has steadily contracted with the closure of export markets. This has led to an oversupply of recycled materials and a corresponding decline in value, particularly for poorly sorted or hard-to-recycle paper and plastic.

In response to this the resource recovery industry has started to transition to more resilient business models, focused on value-adding and the production of high-quality, well-sorted recycled materials. As the prices for recycled material have declined but the cost of sorting and processing has increased, costs for councils, ratepayers and businesses are also under pressure.

In 2014, NSW set a target for landfill diversion of 75 percent of all waste by 2021. However, as of 2019/20, it had only reached 65 percent. Construction and demolition (C and D) recycling had performed the best at a rate close to 80 percent, followed by commercial and industrial recycling at 53 percent. Municipal solid waste diversion (mostly household waste) had plateaued at just over 46 percent (NSW EPA, 2020). WaSM was positioned as an opportunity to refocus efforts and target investment where it is most needed.

The WaSM aims to reduce waste generated and increase recycling through adoption of the Targets outlined in the below figure.

NSW WaSMS Targets
(Source:* NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027*)

The State government has also committed to:

- Developing an NSW regional litter prevention strategy before June 2023.
- Reporting annually on the progress towards meeting these targets prior to a review of WaSM in 2027.

- Establishing new indicators to track the progress of infrastructure investment and cost of waste services.
- Developing a new measure of the emissions performance of waste and materials management which tracks performance across the lifecycle of materials.

Mandating FOGO separation for all households and some businesses

Both the WaSM and the accompanying infrastructure needs guide focus on better management of organic waste. In 2019 an estimated 2.5 million tonnes of organic waste (such as food organics, garden organics, timber, and textiles) was sent to landfill. Emissions from organic waste decomposing in landfill make up more than 2 percent of total net annual emissions in NSW. Methane emissions from the decomposition of organic material in landfills can last up to 25 years in the atmosphere. WaSM indicates that increased diversion of organics from landfill and processing technologies like composting and anaerobic digestion are an important first step towards reducing emissions from waste.

The amount of organic material going to landfill can be reduced by collecting it separately and processing it at specialised organic waste facilities. WaSM recognises that many councils already provide a separate bin to collect garden organics from households and some (less than a third) also collect food organics.

Other organic material, like textiles and timber, finds its way into household bins. Audits of residential kerbside residual waste bins in the waste levy area in NSW show that:

- The proportion of food and garden organics waste overall was 41 percent in 2019; and
- Councils that provided a separate food and garden organics collection service had a far lower proportion of these materials in the residual waste bin (25 percent) compared to councils with only garden organics (41 percent) or no organics collection (54 percent).

To achieve the WaSM targets of halving food waste to landfill and achieving net zero emissions from organics in landfill by 2030, the government will require the separate collection of:

1. Food and garden organics from all NSW households by 2030; and
2. Food waste from businesses that generate the highest volumes, including large supermarkets and hospitality businesses, by 2025.

The government has committed to consulting with councils, businesses, and service providers on the best way to transition to these new arrangements, including the need for phasing in new or grandfathering existing contracts, managing the unique needs of high-density housing, and working with service providers to ramp up processing capacity.

To help with the transition, the NSW Government will invest $65 million over five years from 2023. The funding will support the rollout of new collection services, the development of more processing capacity and a state-wide education campaign that will help households adjust to the changes and improve their recycling habits.

Infrastructure Needs

The transition to the source-separated collection of food and garden organics from households and source-separated collection of food organics from selected businesses will significantly increase the volume of clean organics entering the recycling system. Accordingly, there needs to be a corresponding capacity to reprocess this material.

Based on an assessment of waste and circular economy infrastructure needs over the next decade and beyond the government has identified three key areas to focus on – residual waste, organics, and plastics.

Recovery and recycling infrastructure will need to keep pace with demand and to support this there will need to be investment in new and upgraded facilities from now to 2030 to prevent any shortfall in capacity.

WaSM sets out three priority areas:

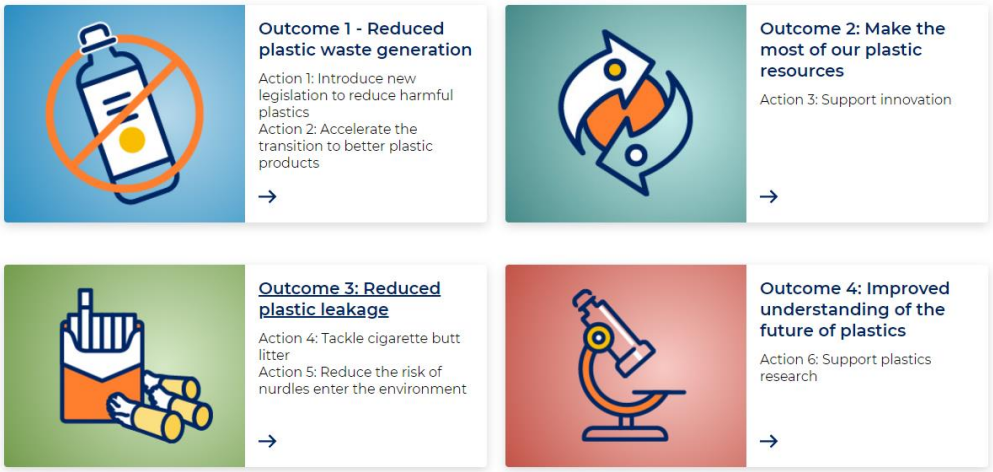
1. Meeting future infrastructure and service needs as waste volumes grow.
2. Reducing carbon emissions through better waste and materials management.
3. Building on work to protect the environment and human health from waste pollution.

Getting the right infrastructure in the right place will be critical to recover, reuse and extend the life of most materials. The WaSM *Guide to Future Infrastructure Needs 2021* reviews the waste infrastructure requirements in NSW to underpin change.

While investment will largely be driven by industry, the NSW Government will play a role to help investment in the right place at the right time. WaSM indicates that, commencing in 2021 the Government will undertake feasibility assessments and engage with the community, local government and business about the infrastructure investment needed to meet the demands. It will undertake a coordination role to attract the right investment at the right time. The early priority will be to ensure there is a pipeline of residual waste management infrastructure, but it will also target complementary recycling and reprocessing infrastructure to help meet capacity gaps. This will involve coordinating functions across government, such as investment attraction, planning, environmental licensing, and grant funding.

Plastics Action Plan

The *NSW Plastics Action Plan* supports the *NSW Waste and Sustainable Materials Strategy 2041*. The NSW Plastics Action Plan outlines a variety of actions to address plastic across all elements of the plastic lifecycle (production, consumption, disposal, and recycling) including the following:



NSW Plastics Action Plan Actions
(Source:* www.dpie.nsw.gov.au/our-work/environment-energy-and-science/plastics-action-plan*)

There are four outcomes that will achieve better management of plastics, reduce the impacts on the environment and make the most of these resources, the outcomes are supported by six actions.

NSW Energy from Waste Infrastructure Plan

The *NSW Waste and Sustainable Materials Strategy 2041* commits to the adoption of a strategic approach to the role of thermal energy recovery from waste to ensure it protects human health and the environment and supports the transition to a circular economy. The recently released *NSW Energy from Waste Infrastructure Plan 2041* guides strategic planning for future thermal energy from waste facilities and outlines how the NSW Government will facilitate the

establishment and operation of energy from waste infrastructure to manage genuine residual waste.

> *Waste can be thermally treated to recover the embodied energy in that material. The energy can be recovered as heat or as a solid, liquid, or gaseous fuel. These outputs can be used to generate electricity or used directly in machinery, vehicles, and industrial processes* (NSW Government, 2021, pg. 2).

Energy proposals must represent the most efficient use of the resource, adequately manage the risks of harm to human health or the environment, and maximise the environmental, social, and economic benefits to communities.

'Eligible waste fuels' including biomass and residues are listed in Part 3 of the Policy Statement and defined in the Eligible Waste Fuels Guidelines. These are excluded from this Plan and continue to be permitted across NSW where they comply with planning and regulatory frameworks.

The plan aligns with the *20-Year Vision for Regional NSW*. Thermal energy from waste facilities only be established, or permitted to operate, in key, identified priority infrastructure areas or by the exception listed as follows:

- West Lithgow Precinct.
- Parkes Special Activation Precinct.
- Richmond Valley Regional Jobs Precinct.
- Southern Goulburn Mulwaree Precinct; or
- At facilities that use waste, or waste-derived, feedstock to replace less environmentally sound fuels (including coal or petroleum-based fuels) thermally treated (or approved to be thermally treated) at the site, and the energy produced from the waste is used predominantly to power the industrial and manufacturing processes on-site, rather than exporting that energy to the grid.

The Parkes Special Activation Precinct and West Lithgow Precinct[19] are located within the NetWaste region and may pose opportunities for the member councils.

Local Framework

Local Government Act 1993

The *Local Government Act* 1993 sets out the legal framework, governance, powers, and responsibilities of councils in New South Wales. Guiding principles for councils include:

- Conducting functions in a way that provides the best possible value for residents and ratepayers.
- Planning strategically for the provision of effective and efficient services to meet the diverse needs of the local community.
- Working co-operatively with other councils and the State government to achieve desired outcomes for the local community.
- Working with others to secure appropriate services for local community needs.

Councils may provide goods, services, and facilities, and conduct activities, appropriate to the current and future needs within their local community and of the wider public. The Act sets out the functions of councils, including its service functions such as, providing community health,

[19] West Lithgow Precinct was removed from the gazetted map but remains a priority infrastructure area.

recreation, education and information services, environmental protection, and waste removal and disposal. A council must also levy an annual charge for the provision of domestic waste management services for each parcel of rateable land for which the service is available.

APPENDIX B: MCA

Multi-Criteria Analysis - Broken Hill Waste Strategy: Options

Strategic Objective / Assessment Criteria	Weighting
Reduce generation of waste	20
Increase sustainable recovery of resources from waste	15
Increase diversion of waste from landfill	25
Leverage commercial benefits of waste transformation locally	10
Limit the impact of waste management on the natural and built environment	10
Support development of regional collaboration for improved waste management planning and investment	10
Support development of innovative circular economy mechanisms and solutions	10
	100

Assessed ability of each Option to deliver the Strategic Objective WRT Tonnage Impact

1 = Low; 2 = Medium; 3 = High

Multi-Criteria Analysis - Broken Hill Waste Strategy: Options

Action Area / Strategic Initiative / Options	Criteria / Strategic Objective							Weighted Score (Max. Score 3.0)	Weighted Score (%)
	Waste reduction	Resource recovery	Waste diversion	Local waste transformation	Protection of the environment	Regional collaboration	Circular economy		
	Reduces generation of waste	*Increases sustainable recovery of resources from waste*	*Increases diversion of waste from landfill*	*Leverages commercial benefits of waste transformation locally*	*Limits the impact of waste management on the natural and built environment*	*Supports regional collaboration for improved waste management planning and investment*	*Supports innovative circular economy mechanisms and solutions*		
Weighted Contribution (%)	*0.2*	*0.15*	*0.25*	*0.1*	*0.1*	*0.1*	*0.1*		
Avoid and Reduce Waste									
1. Develop waste awareness and education strategy									
Develop and deliver waste reduction and waste sorting programs for residential and business communities	2	2	2	1	2	1	1	1.7	57
2. Improve waste management planning and development approvals outcomes									
Develop policy and a waste management plan to incentivise commercial regional developers to source separate construction and demolition waste (such as commercial and green energy developments)	3	3	3	3	2	1	1	2.5	83
3. Support waste avoidance initiatives									
Support community-based waste reduction activities (such as buy/swap/sell initiatives, garage sales)	1	2	1	1	2	1	2	1.35	45
Support community reuse and repair initiatives (such as reduce barriers to buying second-hand and repaired products)	1	2	1	1	2	1	2	1.35	45
Increase Resource Recovery									
1. Increase resource recovery at the Waste Management Facility									
Investigate and deliver innovative management solutions for problem wastes (such as green energy wastes, E-Waste, tyres, mattresses)	3	3	3	3	2	3	2	2.8	93
Investigate and deliver improved resource recovery management processes for organics which deliver a saleable product (such as FOGO, commercial FO dehydrator waste)	1	3	1	2	2	1	3	1.7	57
Support Lifeline to sustainably increase the range and number of items sold through its on-site store	1	1	1	1	1	1	2	1.1	37
Increase supervision of separation of self-haul mixed waste	2	3	3	2	3	1	1	2.3	77
Upgrade resource recovery services and receival infrastructure (such as tyres, mattresses, cardboard)	1	3	2	1	2	1	2	1.75	58
Plan and deliver receival and resource recovery infrastructure for waste received from major projects (such as large infrastructure deconstruction) or events (such as regional rail and road accidents)	3	3	3	2	2	2	2	2.6	87
Prepare a Disaster Waste Management Plan focussed on resource recovery outcomes (such as waste from fire and bush fire events, and rail and road accidents)	2	3	3	2	2	1	2	2.3	77
Investigate and implement urban drop-off locations for separated dry packaging recyclables using partnerships with community-based NfP and CSOs (such as paper, cardboard, recyclable plastics, metals)	1	1	1	3	2	1	1	1.3	43
Develop policy and supporting mechanisms to incentivise pre-delivery sorting of waste (such as residential, public event, commercial waste)	3	3	3	1	2	1	2	2.4	80
Investigate and assess viability of a regional resource recovery hub	1	2	1	3	1	1	1	1.35	45
2. Support development of a circular economy									
Develop a Circular Economy Strategy which encourages local innovation in transforming waste, and which supports regional employment and skills transfer	1	3	2	3	1	2	3	2.05	68
Develop and support local markets for recycled, recovered, and transformed clean waste (such as glass, concrete)	1	3	2	3	2	1	3	2.05	68
Sustainable Operations									
1. Support sustainable procurement									
Develop a procurement policy and guidelines for increasing waste-derived content within purchased goods	1	1	1	3	2	1	1	1.3	43
2. Improve waste data									
Audit kerbside bins for baseline composition and volumetric consumption to advise community education programs, effectiveness of waste sorting policy and supporting mechanisms, and identify resource recovery improvements	2	2	2	2	2	1	2	1.9	63
Improve waste data capture and assessment at the Waste Management Facility to support improved resource recovery service delivery outcomes	1	1	1	1	1	1	1	1	33
3. Improve operations									
Investigate alternative landfill daily cover options to conserve landfill void space (such as moveable lids, spray-on cover)	1	1	2	1	1	1	1	1.25	42
4. Protect the environment									
Investigate viability of landfill gas capture and destruction/reuse/transformation at the Waste Management Facility	1	2	1	2	3	1	2	1.55	52
Develop and deliver a litter reduction education program	1	1	1	1	2	1	1	1.1	37
Improve prevention and prosecution of illegal dumping	1	1	1	1	2	1	1	1.1	37
Increase Resilience									
1. Deliver new Waste Strategy									
Identify, evaluate, and engage resources required to deliver the new Waste Strategy	3	2	2	2	2	2	2	2.2	73
2. Ensure sustainability of waste operations									
Prepare a Long-Term Financial Plan for Waste Services	1	1	1	1	1	1	1	1	33

APPENDIX C: ACTION PLAN

BROKEN HILL CITY COUNCIL WASTE AND SUSTAINABLE MATERIALS STRATEGY ACTION PLAN (2025-2035)

For use by Broken Hill City Council as a tool for delivering the first five years of its *Waste and Sustainable Materials Strategy (WaSMS) 2025 – 2035*

Broken Hill City Council's WaSMS Strategic Objectives:

1. Reduce generation of waste.
2. Increase sustainable recovery of resources from waste.
3. Increase diversion of waste from landfill.
4. Leverage commercial benefits of waste transformation locally.
5. Limit the impact of waste management on the natural and built environment.
6. Support development of regional collaboration for improved waste management planning and investment.
7. Support development of innovative circular economy mechanisms and solutions.

ACTION AREA 1: AVOID AND REDUCE WASTE

State Target: *10% reduction of total waste generated per person by 2030.*

Overall Annual Measurement of Success: *Reduction in total waste generated per person with year-on-year improvement over 2025 baseline working towards the state's per capita waste reduction target (kg/person).*

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Assessment of Delivery
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
Ü	Ü	Ü			Ü	Ü	1, 2, 3, 5	1.1 Develop a waste awareness and education strategy.	1.1.1 Develop and deliver waste reduction and waste sorting programs for residential and business communities.	2025 - 2030	$$	Assessment of reduction of waste-to-Waste Facility - Ongoing
Ü	Ü	Ü			Ü	Ü	2, 3, 4, 5,7	1.2 Improve waste management planning and	1.2.1 Develop policy and a waste management plan to incentivise	2025 - 2030	$	Undertaken (Yes/No)

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Assessment of Delivery
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
								development approvals outcomes.	commercial regional developers to source separate construction and demolition waste (such as commercial and green energy developments).			
Ü	Ü						1, 3, 4, 5,7	1.3 Support waste avoidance initiatives.	1.3.1 Support community-based waste reduction activities (such as buy/swap/sell initiatives, garage sales).	Beyond 2030	$	Assessment of reduction of waste-to-Waste Facility - Ongoing

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Assessment of Delivery
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
									1.3.2 Support community reuse and repair initiatives (such as reduce barriers to buying second-hand and repaired products).	Beyond 2030	$	Undertaken (Yes/No)- Ongoing

ACTION AREA 2: INCREASE RESOURCE RECOVERY

State Target: *80% average recovery rate from all waste streams by 2030.*

State Target: *Phase out problematic and single-use plastics by 2025.*

State Target: *Triple the plastics recycling rate by 2030.*

Overall Annual Measurement of Success: *Improvement in average recovery rate across all waste streams with year-on-year improvement over 2025 baseline working towards the state's average recovery rate target (% Waste Recovered).*

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
Ü	Ü	Ü		Ü	Ü	Ü	2, 3, 4, 5, 6, 7	2.1 Increase resource recovery at the Waste Management Facility.	2.1.1 Investigate and deliver innovative management solutions for problem wastes (such as green energy wastes, E-Waste, tyres, mattresses).	2025 - 2030	$$	Undertaken (Yes/No)
									2.1.2 Investigate and deliver improved resource recovery	2025 - 2030	$$$	Undertaken (Yes/No)

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
									management processes for organics which deliver a saleable product (such as FOGO, commercial FO dehydrator waste).			
									2.1.3 Support Lifeline to sustainably increase the range and number of items sold through its on-site store.	Beyond 2030	$	Undertaken (Yes/No) - Ongoing
									2.1.4 Increase supervision of separation of self-haul mixed waste.	2025 - 2030	$$$	Undertaken (Yes/No)

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
									2.1.5. Upgrade resource recovery services and receival infrastructure (such as tyres, mattresses, cardboard).	2025 - 2030	$$$	Undertaken (Yes/No)
									2.1.6 Plan and deliver receival and resource recovery infrastructure for waste received from major projects (such as large infrastructure deconstruction) or events (such as regional rail and road accidents).	2025 - 2030	$$$	Undertaken (Yes/No)

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
									2.1.7 Prepare a Disaster Waste Management Plan focussed on resource recovery outcomes (such as waste from bush fire events).	2025 - 2030	$$	Undertaken (Yes/No)
									2.1.8 Investigate and implement urban drop-off locations for separated dry packaging recyclables using partnerships with community based NfP and CSOs (such as paper, cardboard,	Beyond 2030	$$$	Undertaken (Yes/No)

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
									recyclable plastics, metals).			
									2.1.9 Develop policy and supporting mechanisms to incentivise pre-delivery sorting of waste (such as residential, public event, commercial waste).	2025 - 2030	$	Undertaken (Yes/No)
									2.1.10 Investigate and assess viability of a regional resource recovery hub.	Beyond 2030	$$	Undertaken (Yes/No)
Ü	Ü	Ü	Ü	Ü	Ü	Ü	1, 2, 3, 4, 5, 6, 7		2.2.1 Develop a Circular Economy Strategy which	2025 - 2030	$$	Undertaken (Yes/No)

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
								2.2 Support development of a circular economy.	encourages local innovation in transforming waste, and which supports regional employment and skills transfer.			
									2.2.2 Develop and support local markets for recycled, recovered, and transformed clean waste (such as glass, concrete).	2025 - 2030	$$	Undertaken (Yes/No) - Ongoing

ACTION AREA 3: *SUSTAINABLE OPERATIONS*

State Target: *Significantly increase the use of recycled content by governments and industry.*

State Target: *Halve the amount of organic waste sent to landfill by 2030.*

State Target: *Establish new indicators to help track progress on infrastructure investment and the cost of waste services.*

State Target: *Develop a new measure of the emissions performance of waste and materials management.*

State Target: *Reduce plastic litter items by 30% by 2025.*

State Target: *Reduce overall litter by 60% by 2030.*

Overall Annual Measurement of Success: *Implementation of Action on time, on budget.*

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				2025 – 2030 Beyond 2030	$ <$10k $$ $10 – $50k $$$ >$50k	Review Type and Period
	Ü	Ü	Ü		Ü		2, 3, 5, 7	3.1 Support sustainable procurement.	3.1.1 Develop a section of Council's procurement policy and supporting guidelines dedicated to increasing waste-derived	Beyond 2030	$	Undertaken (Yes/No)

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				2025 – 2030 Beyond 2030	$ <$10k $$ $10 – $50k $$$ >$50k	Review Type and Period
									content within purchased goods.			
ü	ü	ü		ü	ü	ü	2, 3, 5, 7	3.2 Improve waste data.	3.2.1 Audit kerbside bins for baseline composition and volumetric consumption to advise community education programs, effectiveness of waste sorting policy and supporting mechanisms, and identify resource recovery improvements.	2025 - 2030	$$	Undertaken (Yes/No)
									3.2.2 Improve waste data capture and assessment at the Waste Management Facility to support improved	Beyond 2030	$$	Undertaken (Yes/No)

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				2025 – 2030 Beyond 2030	$ <$10k $$ $10 – $50k $$$ >$50k	Review Type and Period
									resource recovery service delivery outcomes.			
	Ü	Ü		Ü	Ü		5	3.3 Improve operations	3.3.1 Investigate alternative landfill daily cover options to conserve landfill void space (such as moveable lids, spray-on cover)	Beyond 2030	$	Undertaken (Yes/No)
		Ü		Ü	Ü	Ü	2, 5	3.4 Protect the environment	3.4.1 Investigate viability of landfill gas capture and destruction/reuse/transformation at the Waste Management Facility	2025 - 2030	$$$	Undertaken (Yes/No)
									3.4.2 Develop and deliver a litter reduction education program.	Beyond 2030	$	Undertaken (Yes/No) – Ongoing

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				**2025 – 2030** **Beyond 2030**	**$ <$10k** **$$ $10 – $50k** **$$$ >$50k**	**Review Type and Period**
									3.4.3 Improve prevention and prosecution of illegal dumping.	Beyond 2030	$$	Undertaken (Yes/No) – Ongoing

ACTION AREA 4: INCREASE RESILIENCE

Overall Annual Measurement of Success: *Implementation of Action on time, on budget*

WaSMS Theme				WaSMS Priority			Strategic Objectives Met	Strategic Initiative	Action	Delivery Priority	Resources Required	Delivery Feedback
Avoid or reduce	Recover Resources	Protect the Environment	Strategic Collaboration	*Meeting our future infrastructure and service needs*	*Reducing carbon emissions through better waste and materials management*	*Building on our work to protect the environment and human health from waste pollution*				2025 – 2030 Beyond 2030	$ <$10k $$ $10 – $50k $$$ >$50k	Review Type and Period
Ü	Ü	Ü	Ü	Ü	Ü	Ü	1, 2, 3, 4, 5, 6, 7	4.1 Deliver new Waste Strategy.	4.1.1 Identify, evaluate, and engage resources required to deliver the new Waste Strategy.	2025 - 2030	$	Undertaken (Yes/No) – Ongoing
Ü	Ü	Ü	Ü	Ü	Ü	Ü	1, 2, 3, 4, 5, 6, 7	4.2 Ensure sustainability of waste operations.	4.2.1 Prepare a Long-Term Financial Plan for Waste Services.	Beyond 2030	$$	Undertaken (Yes/No)

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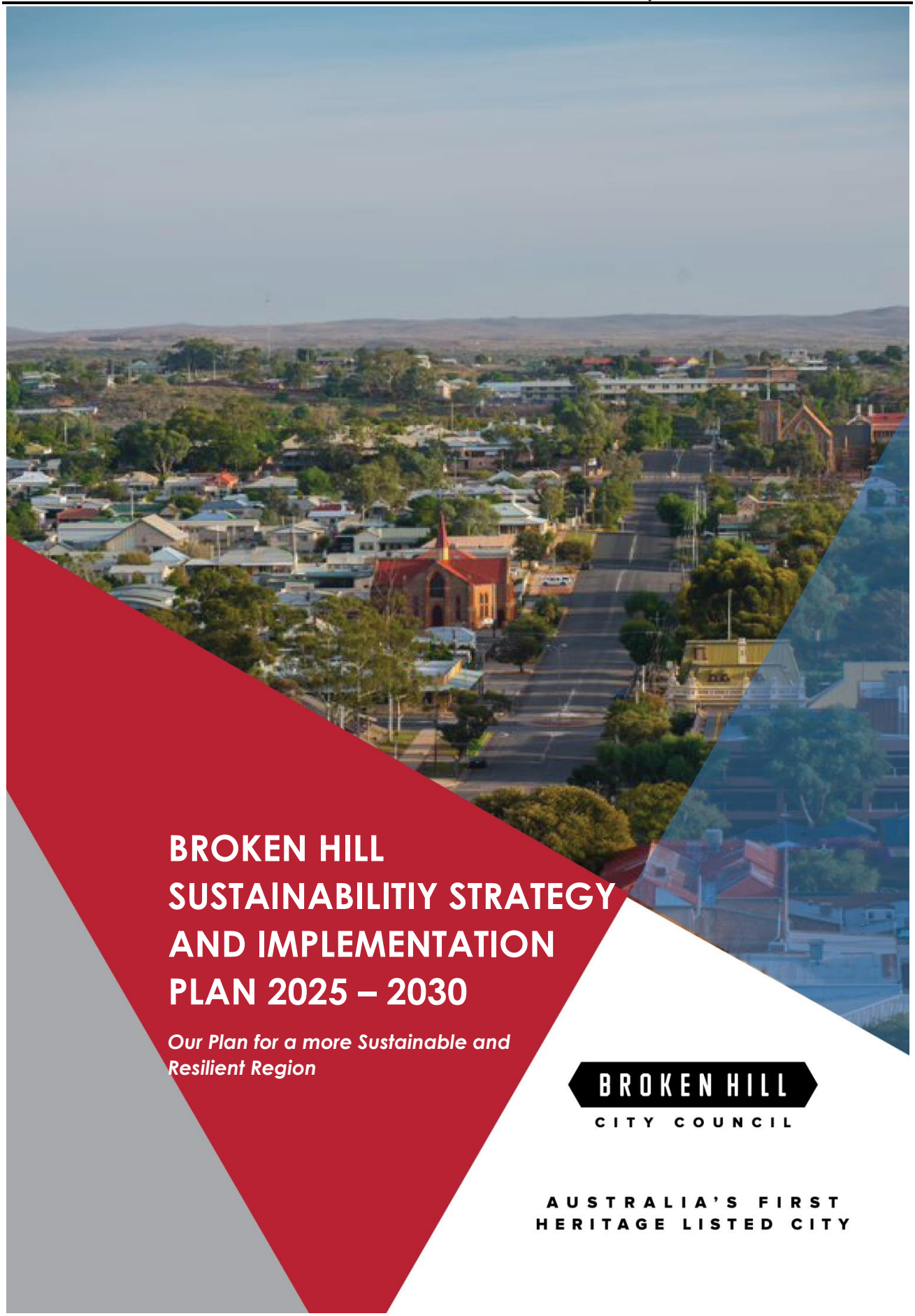


BROKEN HILL SUSTAINABILITIY STRATEGY AND IMPLEMENTATION PLAN 2025 – 2030

Our Plan for a more Sustainable and Resilient Region

BROKEN HILL
CITY COUNCIL

AUSTRALIA'S FIRST
HERITAGE LISTED CITY

QUALITY CONTROL			
KEY THEME	3. Our Environment		
OJECTIVE	3.1 Our environmental footprint is minimised		
STRATEGY	3.1.1 Implement measures to reduce the city's carbon footprint and enhance the circular economy by educating and demonstrating the use of renewable resources		
FUNCTION	Waste Management		
EDRMS REFERENCE	11/200	**FILE REFERENCE**	D25/6369
RESPONSIBLE POSITION	Waste and Sustainability Manager		
APPROVED BY	General Manager		
REVIEW DATE	October 2030		
DATE	**ACTION**	**MINUTE NUMBER**	
NOTES	Front Cover Image: Broken Hill Content and images provided by Talis Consulting Pty Ltd. © Copyright Talis Consultants Pty Ltd *Copyright of this document or any part of this document remains with Talis Consultants Pty Ltd and cannot be used, transferred, or reproduced in any manner or form without prior written consent from Talis Consultants Pty Ltd.*		
ASSOCIATED DOCUMENTS	Landfill Environment Management Plan Waste and Sustainable Material Strategy 2025 - 2035		

Acknowledgement of Country

Broken Hill City Council acknowledges the traditional owners of the land upon which we meet today, the land of the Wilyakali people and pay our respects to their elders; past, present and emerging.

TABLE OF CONTENTS

1. WHAT IS SUSTAINABILITY?

Sustainability, within the context of this document, refers to "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987). The concept of Sustainable Development is aimed at maintaining economic growth whilst safeguarding the long-term prosperity of our natural environment.

This Sustainability Strategy and Implementation Plan 2025-2030 has been developed alongside Broken Hill City Council to help guide the integration of policies and strategic actions that will facilitate sustainability across the Broken Hill Local Government Area (LGA) over the next five (5) years. The purpose of developing and integrating sustainability in Council's operations is to minimise the impact Council and the community has on the environment through ethical governance, whilst strengthening economic, social and environmental resilience. Council has identified that to develop a more sustainable region we must consider these four (4) principles in the following manner:

1. ***Environmental Sustainability*** living within the means of our ecological environment, by mitigating overexploitation of natural, resources, such as energy fuels, land and water, by consuming at a sustainable rate, and making decisions that prioritise the protection and maintenance of the natural environment.

2. ***Economic Sustainability*** ensuring the cost-effective delivery of works and services, and appropriate maintenance and renewal of Council assets that ensures current and future financial sustainability for the Broken Hill region.

3. ***Social Sustainability*** Council to facilitate social well-being through collaboration and transparency by engaging with community during decision-making processes to help build and support an inclusive community.

4. ***Sustainable Governance*** Council to embed transparent and ethical practices within functions of the organisation through managing and setting targets, reporting processes, strengthening internal and external stakeholder relationships particularly with community, and ensuring a high level of accountability is maintained for continual improvement.

2. STRATEGIC CONTEXT

Broken Hill City Council is committed to developing a more sustainable and liveable City for current and future generations. As such, equity, resilience, justice and strategic planning are important principles that help guide everything we do at Broken Hill. Sustainability is a complex concept that requires an interdisciplinary approach to address environmental, social, economic and governance factors to achieve peace and prosperity for people and the planet, both now and into the future. We recognise that we must protect and enhance our natural and built environments if we want a more sustainable, vibrant and liveable future. This Sustainability Strategy and Implementation Plan directly relates to improving Council's own environmental footprint and sets targets for Council's own operations to guide our environmental sustainability journey over the next five (5) years.

Our Strategy builds on Council's former Sustainability Strategy 2018 – 2023 setting a new standard for sustainability in our region from which we can continue to build on to achieve our environmental goals. The targets set out in this Strategy are informed by Council's own Community Strategic Plan – Your Broken Hill 2040, Annual Report 2022/2023, Economic Development Strategy 2022-2027, and other issue specific plans and strategies. Careful consideration has been given to planning priorities and actions identified in relevant State and National plans and strategies. The themes and targets identified within this strategy align with the Sustainable Development Goals (SDGs) set out in the United Nations 2030 Agenda for Sustainable Development. The SDGs are widely considered as the international best practice standard for sustainability reporting and are used by all levels of government both in Australia and globally.

3. BACKGROUND

Under the NSW Government's Integrated Planning and Reporting Framework (IP&R Framework) (Figure 1), Council uses the community strategic plan to determine the community's aspirations for a period of at least 10 years. The IP&R Framework includes a suite of integrated plans that set out goals and strategic actions to achieve them. It involves a reporting structure to communicate progress to Councillors and the community as well as providing a structured timeline for review to ensure the goals and actions maintain relevance.

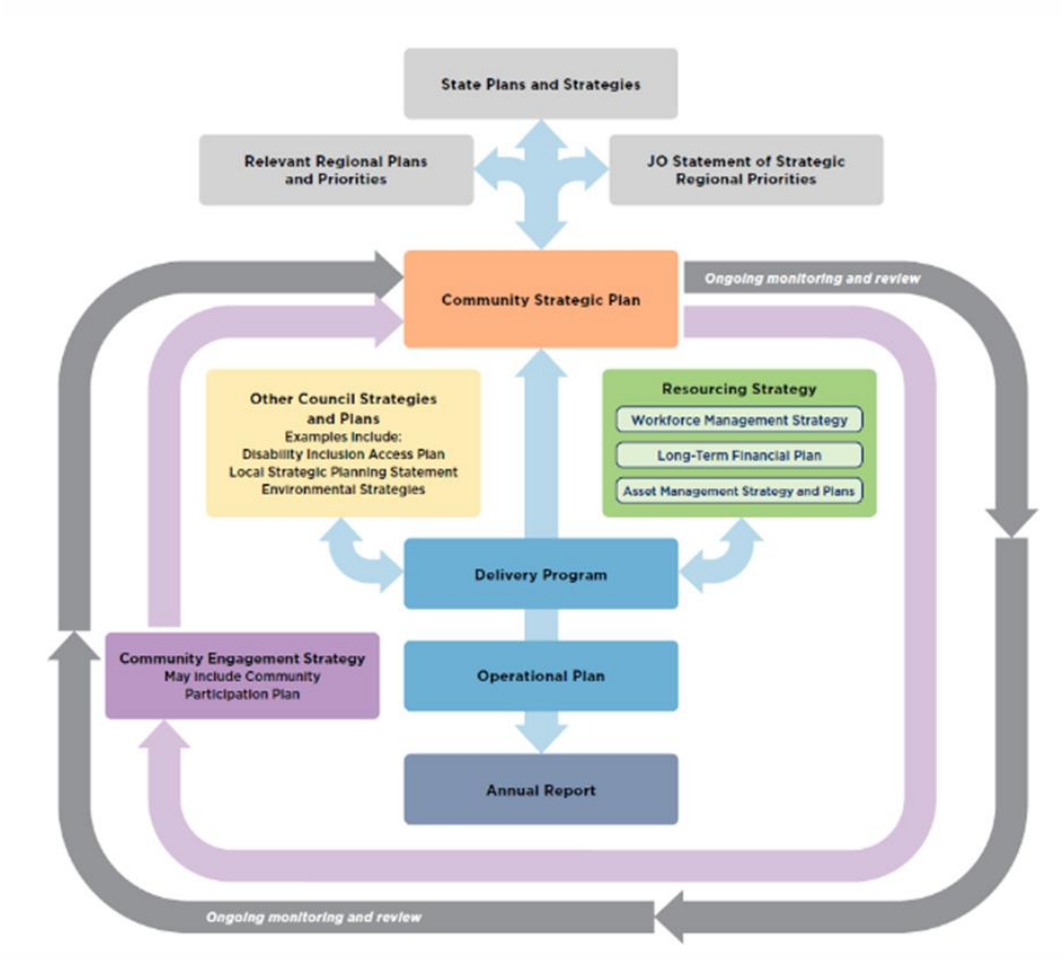


Figure 1. *Integrated Planning and Reporting Framework (Integrated Planning and Reporting – Office of Local Government NSW)*

During the development of Council's 2040 Community Strategic Plan (CSP), the community was consulted about their aspirations for Broken Hill. The community responded with the following aspirations:

- Affordable Housing
- Airport Redevelopment
- Allied services
- Arts and culture
- Cleaner and greener city
- Climate change and renewable energy
- Community facilities maintenance
- Development
- Drug rehabilitation
- Effective community engagement
- Employment and local jobs
- Financial sustainability
- Trees, parks and open spaces
- Homelessness
- Local environmental protection
- Mental health
- Population growth and management
- Roads and infrastructure
- Tourism
- Training and education
- Transport
- Waste Management and recycling
- Youth and childcare
- Health and ageing population
- History and heritage of the city
- Heightened cooperation indigenous and non-indigenous

Among the highest priority themes identified in during consultation with the community related to the conservation and preservation of the natural environment and greater reduction of human impacts on the surrounding environment to ensure a sustainable and healthy community as defined in Key Direction 3 – Our Environment within Council's CSP.

As part of Key Direction 3 – Our Environment, three objectives were identified:

- 3.1 Our Environmental footprint is minimised.
- 3.2 Natural environments and flora and fauna are enhanced and protected.
- 3.3 Proactive, innovative and responsible planning supports the community, the environment and beautification of the City.

These objectives are broken down further into the following goals set out by Council:

Objective 3.1 – Our Environmental Footprint is Minimised

- 3.1.1 Implement measures to reduce the city's carbon footprint and enhance the circular economy by educating and demonstrating the use of renewable resources.
- 3.1.2 Educate the community on measure to avoid waste and reduce littering and waste to landfill.
- 3.1.3 Investigate and plan for the minimisation of environmental, social and rehabilitation impacts associated with mining activity on the City.
- 3.1.4 Pursue opportunities for scale renewable energy and back up battery capability and investigate new technologies as they emerge.

Objective 3.2 – Natural Environments Flora and Fauna are Enhanced and Protected

- 3.2.1 Recognise and communicate the fragility of the natural environment and insist on its respectful use and the protection and restoration of local biodiversity, lands and accessibility to the night sky.

- 3.2.2 Increase awareness and understanding of climate change and active protection of the nature environment.
- 3.2.3 Protect, rehabilitate and enhance regeneration areas and commons for the benefit of the City and in accordance with the National Heritage listing.
- 3.2.4 Minimise the impact of feral and domestic animals and noxious weeds on the natural environment.
- 3.2.5 Advocate for river connectivity in the Murray Darling Basin system, maintaining water supply in the Menindee Lakes system, and maintaining the health of the Darling Baaka River.

Objective 3.3 – Proactive, Innovative and Responsible Planning Supports the Community, the Environment and Beautification of the City

- 3.3.1 Encourage measure that limit the impact of the changing climate and enhance environmentally sustainable buildings and land use planning.
- 3.3.2 Create green and resilient environments by improving tree cover, native vegetation, landscaping and water management systems.
- 3.3.3 Preserve the heritage and streetscapes of the City.
- 3.3.4 Reuse and repurposing of the existing build environment are managed in a sustainable manner.

The Sustainability Strategy 2018 – 2023 was developed in response to Council's CSP under the IP&R Framework and falls under the 'Other Council Strategies and Plans'. Goals and actions set out in this Sustainability Strategy are included in a 4-year (4) Council Delivery Program. Every four (4) years, Council develops a Delivery Program that sets the targets for the Council term in line with objectives of the CSP. The Annual Operational Plan is a plan which focuses on the short-term and details which activities and projects from the delivery Program will be implemented. The goals and actions within Council's Sustainability Strategy are embedded within the Delivery and Operational Plans, and progress reported through Council's Annual Report.

4. OUR VISION FOR 2040

This strategy aims to help fulfil our Community vision in line with Broken Hill City Council's *Community Strategic Plan Your Broken Hill 2040* which focuses on four interconnected themes aimed at supporting the achievement of our community's vision and facilitating collaboration. The themes include:

1. Our Community – We value lifestyle and wellbeing; a pace that encourages safe, active, cultural and social opportunities.

2. Our Economy – We value a diverse economy which is resilient and adaptable to change, making the best use of the unique advantages of our remoteness and lifestyle.

3. Our Environment – We value our unique landscape; we are committed to conservation and preservation of the natural environment and greater reduction of the human impact to ensure a sustainable and healthy community.

4. Our Leadership – We value collaboration and working together for the greater good – Broken Hill community continues shared responsibility for good governance.

5. SUSTAINABLE DEVELOPMENT GOALS (SDGS)

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its core are 17 Sustainable Development Goals (Figure 2) (SDGs), which are an urgent call for action by all countries – developed and developing – in a global partnership. The 17 SDGs are underpinned by 169 targets which build on the Millenium Development Goals and complete what these did not achieve and seek to balance the three pillars of sustainable development: economic, social, and environment.

Figure 2. *United Nations 17 Sustainable Development Goals (THE 17 GOALS | Sustainable Development (un.org)*.

5.1. SDGS IDENTIFIED

Council have identified the following SDGs and actions that we can contribute to which will underpin our organisational planning, the strategic direction of our sustainability journey and the way we communicate with our community. The identified SDGs include the following:

Goal	Description
	Ensure healthy lives and promote well-being for all at all ages.
	Ensure availability and sustainable management of water and sanitation for all.
	Ensure access to affordable, reliable, sustainable and modern energy for all.
	Promote inclusive and sustainable economic growth, employment and decent work.
	Make cities inclusive, safe, resilient and sustainable.
	Ensure the sustainable consumption and production patterns.
	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

6. CORE THEMES

Our Sustainability Strategy and Implementation Plan 2025 - 2030 focuses on 11 Core Themes which were developed to achieve the goals realised by the CSP 2040 under Key Direction 3 – Our Environment. The 11 Core Themes are:

#	Core Themes	Priorities	Relevant SDG
1	Energy Efficiency	Reduce energy use, costs and Greenhouse Gas Emissions	7, 11, 12
2	Renewable Energy	Produce energy from renewable sources to reduce costs and Greenhouse Gas Emissions	7, 11, 12
3	Gas Consumption	Reduce energy use, costs and Greenhouse Gas Emissions	7, 11, 12
4	Transport Energy	Reduce fuel consumption promote active transport (reduce greenhouse gases)	3, 7, 11, 12
5	Sustainable Procurement	Use procurement to support positive environmental, social and economic outcomes	7, 8, 11, 12
6	Carbon Emissions	Measure and reduce Greenhouse Gas Emissions	3, 7, 11, 12
7	Water	Reduce water use, costs and have a positive impact on liveability	3, 6, 11, 12
8	Waste	Reduce waste to landfill, increase recycling and re-use of resources	3, 8, 11, 12, 15
9	Minimising the Environmental Impacts of Mining	Improve the liveability of Broken Hill	3, 11
10	Enhancing and Protecting the Natural Flora and Fauna	Improve the liveability of Broken Hill	3, 11
11	Built Environment	Increase the liveability of Broken Hill	11, 12, 15

Each core theme of our Strategy covers key environmental priorities for that theme. Each priority sets a goal for the future, outlining why it is important, what we have already achieved and actions we will undertake to meet our goals.

7. ENERGY EFFICIENCY

Broken Hill City Council is committed to optimising its energy use across all operations by investigating opportunities to improve energy efficiency to reduce annual energy expenditure, reduce carbon emissions and implement opportunities to transition to renewable energy. In 2021, Broken Hill City Council adopted the Renewable Energy Action Plan (REAP) after receiving positive feedback from both Councillors and the Community in late 2020. The REAP mapped out the way forward to achieve 100% renewable status for the City of Broken Hill by 2030. It supports Council's pledges to investigate opportunities to achieve 100% renewable status across all Council Buildings and Facilities, ensures Council fleet purchases meet strict greenhouse gas emissions requirements and support the uptake of alternative fuel vehicles. Broken Hill City Council aims to set new city-level renewable energy and emissions reduction targets reinforced by the development of a sustainable energy policy that will set the standard and shared expectations for our community and industrial neighbours.

#	Our Focus Areas	Our Targets – Where we want to be?
1	Energy Efficiency	Energy Use Data collected and monitored, smart interval meters installed, energy audits for all Council buildings and facilities completed, renewable energy implemented where possible.
2	Energy Expenditure	Reduce annual expenditure on fossil fuel derived energy year over year.
3	Energy Emissions (Scope 2)	Reduce Greenhouse Gas Emissions from Energy Use Year over Year in line with state targets to achieve 50% emissions reductions by 2030.

7.1. WHAT WE AIM TO DO TO ACHIEVE OUR TARGET(S):

Improving Energy Efficiency of Council buildings and facilities:

- Conduct and implement findings of energy audits to Council's Administration Building, Art Gallery, and Civic Centre.
- Install LED lighting at all Council Buildings and standardise energy efficiency such as lighting.
- Investigations and implement controls, sensors, master switches and timers for the Administration Building, Art Gallery, and Civic Centre.
- Develop energy efficiency policy that sets energy efficiency standards for all new Council Buildings and Retrofits based on industry best practice.
- Establish energy data monitoring process to track energy use and to identify energy efficiency improvements.

Reducing Energy Expenditure across Council Operations:

- Review Energy Contract to ensure Council is receiving the most competitive market rate.

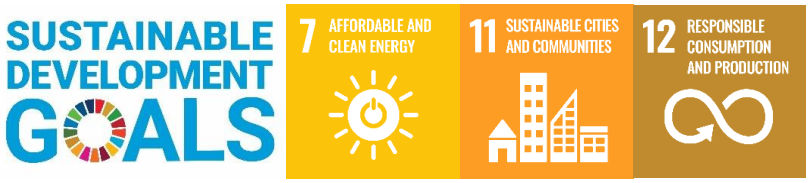
- Develop and implement Revolving Energy Fund.
- Undertake annual contract review to ensure that Council is getting the best market rate.

Reducing Councils overall Energy Emissions (Scope 2):

- Undertake Climate Risk Assessment and develop Climate Adaptation and Mitigation Plan for Broken Hill LGA.
- Develop adaptive maintenance plans for all Council buildings and facilities.
- Investigate viability of transitioning from gas to renewable energy sources.

8. RENEWABLE ENERGY

Broken Hill City Council completed stage 1 of the Renewable Energy Action Plan in FY2021/2022, which identified the preferred site, and a business case completed for the installation of a medium scale solar array. Stage 2 of the REAP was presented to the elected Council and approved in 2022. Actions completed as part of Stage 2 included specification of suitable solar infrastructure and financial modelling to identify cost and benefits of installation. As part of this strategy Council are committed to continue this work by further investigating financial viability of transitioning Council Buildings to renewables and setting new renewable energy targets to achieve by 2030.



#	Our Focus Areas	Our Targets – Where we want to be?
4	Renewable Energy Transition	100% of Councils energy needs are provided by renewable sources by 2030.

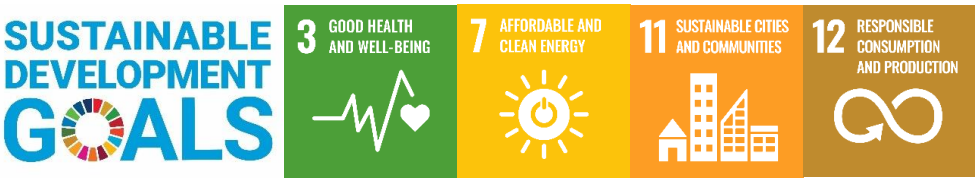
8.1. WHAT WE AIM TO DO TO ACHIEVE OUR TARGET(S):

Renewable Energy Transition:

- Undertake cost-benefit-analysis for transitioning Council Buildings to Renewable Energy and develop a plan that prioritises Council buildings with highest energy consumption.
- Establish Council's current renewable energy composition and set new renewable energy goal by 2030.

9. SUSTAINABLE TRANSPORT

In 2017, Broken Hill City Council became a member of the Cities Power Partnership which enables Council and the community to work in collaboration with other Councils and stakeholders, to investigate best practice, share opportunities and exchange knowledge. Council have pledged to provide and improve Sustainable Transport across the region as part of their commitment to the environment under the Cities Power Partnership. Council aims to improve Transport Sustainability by renewing and improving cycling, walking and mobility connections to reduce carbon emissions and increase Broken Hill's liveability and encourage active transport. This will provide for adequate cycle lanes in road design and supporting cyclists through providing parking and end of-ride facilities (covered, secure bike storage, showers, bicycle maintenance and incentives). Council will also investigate the introduction of alternative fuel vehicles when replacing Council fleet vehicles to reduce fleet emissions. So far, Council has introduced one hybrid vehicle into its fleet as part of an initial trial and is seeking to expand its fleet of alternative fuel vehicles as existing fleet vehicles reach the end of their lifecycle.



#	Our Focus Areas	Our Targets – Where we want to be?
5	Improving Council Fleet Efficiency	Council fleet transitioned to alternative fuel vehicles at end of lifecycle.
6	Fuel Consumption Data Monitoring	Council fuel consumption reduced year over year.
7	Active Transport	Active transport promoted and facilitated through infrastructure upgrades.
8	Improving City's Liveability	Mobility connections implemented and maintained.

9.1. WHAT WE AIM TO DO TO ACHIEVE OUR TARGET(S):

Improving Council Fleet Efficiency:

- Undertake cost-benefit-analysis for transitioning Council Fleet to Electric or Hybrid vehicles. Consider staged approach starting with the most inefficient vehicles or replacing vehicles that accumulate the most kilometres per year.
- Conduct market analysis to determine availability of Alternative Fuel Vehicles that could replace Council's existing Fleet vehicles.
- Review use case for each fleet vehicle and restrict use of commercial light fleet vehicles to, only, if necessary, i.e., unsealed roads, need for tray and haulage.

Fuel Consumption Data Monitoring:

- Develop and standardise monitoring process for fuel consumption of Council Fleet Vehicles.

Active Transport:

- Continue to encourage and facilitate active transport among staff by developing internal incentives.

Improving Cities Liveability:

- Investigate opportunities to increase urban heat shades along shared paths including greening areas with high foot traffic around Broken Hill to provide relief from direct heat exposure.
- Address road condition complaints and ensure that road maintenance programs are in place and functional whilst maintaining community awareness.
- Undertake quarterly road asset surveys to maintain safe road conditions for the community.

10. SUSTAINABLE PROCUREMENT

Broken Hill City Council has embedded sustainability within its procurement policy which aims to guide employees and contractors on specific objectives when purchasing products and services to support the delivery of Council initiatives and infrastructure projects:

- **Minimise Unnecessary Purchasing** (only purchase when a product or service is necessary).
- **Minimise Waste** (purchase in accordance with avoid, reduce, reuse and recycle strategies).
- **Save Water and Energy** (purchase products that save energy and/or water).
- **Minimise Pollution** (avoid purchasing products that pollute soils, air or waterways).
- **Non-Toxic** (avoid purchasing hazardous chemicals that may be harmful to human health or ecosystems).
- **Greenhouse Benefits** (purchase products that reduce greenhouse gas emissions).
- **Biodiversity and Habitat Protection** (purchase in accordance with biodiversity and conservation objectives).
- **Value for Money** (purchase for best value for money in the long term).

These objectives aim to:

- Eliminate unnecessary inefficiency, waste and expenditure.
- Contribute to the combined purchasing power of local government to further stimulate demand for sustainable products, including materials collected through council's kerbside collection.
- Advance sustainability by participating in "closing the life-cycle loop".
- Increase awareness about the range and quality of products available.
- Deliver council's commitments in relation to ecologically sustainable development and other environmental and social objectives.
- Play a leadership role in advancing long term social and environmental sustainability.
- Support local businesses and organisations.

#	Our Focus Areas	Our Targets – Where we want to be?
9	Sustainability in Procurement	Procurement Policy includes Environmental and Social Sustainability and aligns with latest international standards (ISO 20400 Standard – Sustainable Procurement).
10	Sustainability Awareness	Sustainability awareness training campaign developed and delivered to all Council staff.

10.1. WHAT WE WILL DO TO ACHIEVE OUR TARGET(S):

Sustainability in Procurement:

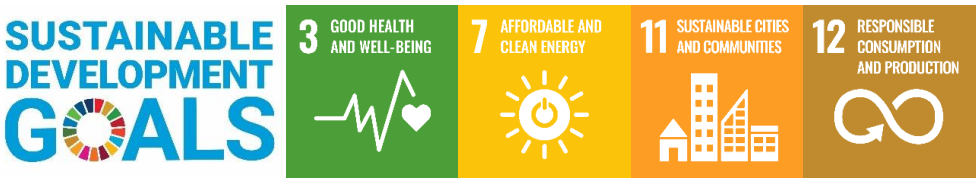
- Review existing procurement policy and procedure to align with ISO 20400 Standard – Sustainable Procurement.
- Implement sustainability evaluation criteria in procurement policy that requires Council staff to review how a project has considered principles of sustainability in their project before approval.

Sustainability Awareness

- Develop staff inductions on how to consider sustainability during procurement process.

11. CARBON EMISSIONS

Broken Hill City Council has been investigating opportunities to reduce greenhouse gas emissions (GHGs) across the organisation over the past few years to determine how it can reduce its overall carbon footprint and improve the efficiency of its energy and fuel consumption. In 2021, Council adopted the Renewable Energy Action Plan (REAP) which sets out the pathway to achieve 100% renewable status and ways to ensure new Council fleet vehicle purchases meet GHG emissions standards. This strategy aims to build on Council's progress by identifying a new emissions reduction goal and establishing practical measures to track and monitor its emissions against its targets to support broader NSW Government Emissions Reduction Objectives (Net Zero by 2050).



#	Our Focus Areas	Our Targets – Where we want to be?
11	Emissions Reporting	Emissions from electricity and fleet fuel consumption tracked and reported in Council's Annual Report.
12	Emissions Reductions	Emissions reporting framework developed and implemented.
13	Partnerships	Pledges with Cities Power Partnership Achieved.

11.1. WHAT WE WILL DO TO ACHIEVE OUR TARGET(S):

Emissions Reporting:

- Develop and establish emissions reporting process for electricity usage (Scope 2).
- Establish emissions baseline for electricity usage (Scope 2) and Council Fleet Vehicles (Scope 1).
- Develop emissions reporting framework for Council operations (Scope 1, 2, and 3).

Emissions Reductions:

- Establish emissions target to be achieved by 2030.
- Undertake feasibility study on carbon neutrality across Council's operations and use findings to inform future planning.

Partnerships:

- Council to monitor emissions reductions progress against Cities Power Partnership pledges.

12. WATER

Broken Hill City Council is committed to ensuring the region has a sustainable, clean and reliable water supply to support both current and future generations. In 2018, Council completed construction of the Wentworth to Broken Hill pipeline which supplies 37.4 megalitres of raw water per day from the Murray River to Broken Hill. The pipeline infrastructure contains a 720 megalitre bulk water storage facility and four pumping stations along the route.

#	Our Focus Areas	Our Targets – Where we want to be?
14	Water Use Efficiency	Water consumption monitoring process developed and implemented to ensure water infrastructure is operating efficiently and to identify opportunities to avoid wastage, reduce overall consumption and increase water recycling.
15	Drought Resilience	Regional Drought Resilience Plan Developed.
16	Fair Water Pricing	Water prices are consistent with other NSW jurisdictions.
17	Environmental Flows	Continual advocacy ensures environmental flows to Menindee Lakes.

12.1. WHAT WE WILL DO TO ACHIEVE OUR TARGET(S):

Water Use Efficiency:

- Investigate water reduction opportunities across Council operations and develop water efficiency strategy.
- Ensure the efficient use of water through staff education programs and toolbox talks.
- Investigate water efficiency retrofits for existing Council buildings and standardise for all new Council Buildings.
- Develop maintenance programs that ensures water infrastructure is maintained to operate efficiently (repair leaks etc.). Establish quarterly audit requirements to identify and report on maintenance issues.
- Develop and implement water monitoring programs to track water usage and improvements in water efficiency.
- Investigate water efficiency, grey water, water-sensitive design standards into the Council's Development Control Plan (DCP).

Drought Resilience:

- Develop Regional Drought Resilience Plan to reduce the Broken Hill Local Government Area's vulnerability to impacts during drought.

Fair Water Pricing:

- Continue to advocate for water price parity in Broken Hill – State Government/IPART.

Environmental Flows:

- Continue to advocate for the ecological/environmental improvement of Menindee lakes (State/Federal Government), to have a positive impact on the liveability of the Broken Hill community.

13. WASTE

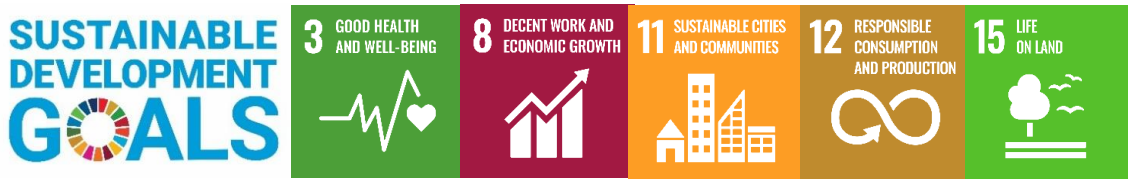
Broken Hill City Council is committed to improving waste management practices across the region by facilitating effective waste collection and greater resource recovery. Council aims to ensure that adequate infrastructure is available to support the community's waste service needs and empowering the community with the necessary knowledge to help Council achieve its waste sustainability goals by providing education around best practice waste management. Council aims to reduce the amount of waste ending up in landfill and increase recycling and resource recovery in line with broader NSW Government waste and sustainability targets (*NSW Waste and Sustainability Materials Strategy 2041, Stage 1: 2021-2027*):

- Reduce total waste generated by 10% per person by 2030.
- Have an 80% average recovery rate from all waste streams by 2030.
- Significantly increase the use of recycled content by governments and industry.
- Phase out problematic and unnecessary plastics by 2030.
- Halve the amount of organic waste sent to landfill by 2030.
- Reduce litter by 60% by 2030 and plastics litter by 30% by 2030.
- Triple the plastics recycling rate by 2030.

During the 2022/23 period, the Broken Hill Waste Management and Recycling Centre received a total of 40,676.98 tonnes of waste: with 804.76 tonnes being recycled off site, the majority being steel. An additional 20,729 tonnes were used on site for cover material. In the same period, Council carried out the following Waste Reduction Projects:

- Annual Household Chemical Cleanout
- Waste Reduction Media Campaign in partnership with NetWaste.
- Keep Australia Beautiful Campaign.
- Delivered three new side lifters in November 2022.

The Community Recycling Centre has continued to improve the recycling capability of the facility with 2,759 people delivering a total of 10.42 tonnes of commingled recyclable material to the facility. This Strategy aims to facilitate further improvements in the regions Waste Management capabilities and set the standard for waste sustainability across the broader region.



#	Our Focus Areas	Our Targets – Where we want to be?
18	Support Sustainable Procurement	Procurement Policy updated to consider purchased products are derived from recycled material.
19	Facilitate Community Recycling	Kerbside waste audit completed with findings used to inform education material on behavioural change and best practice recycling.

20	Improve Waste Data Capture	Waste Data Capture Process Established.
21	Community Waste Education	Community litter reduction education program delivered to community to improve waste management.
22	Reduce Illegal Dumping	Illegal dumping reduced.
23	Sustainable Waste Management	Waste Management Strategy Developed.
24	Reduce Waste at Council Buildings and Facilities	Opportunities to improve waste avoidance and recycling across Council buildings identified and implemented.

13.1. WHAT WE WILL DO TO ACHIEVE OUR TARGET(S):

Support Sustainable Procurement:

- Update procurement policy and guidelines so that purchased goods are derived from recycled material (where possible).

Facilitate Community Recycling:

- Audit kerbside bins for baseline composition and volumetric consumption to advise community education programs to advise community education programs on best practice "at-home" waste management practice and report on resource recovery improvements.

Improve Waste Data Capture:

- Improve waste data capture and assessment at the Broken Hill Waste Management Facility to support improved resource recovery and service delivery outcomes.

Community Waste Education:

- Develop and deliver a community litter reduction education program.

Reduce Illegal Dumping:

- Improve prevention and prosecution of illegal dumping.

Sustainable Waste Management:

- Develop Waste Management Strategy.

Reduce Waste at Council Buildings and Facilities:

- Investigate opportunities to avoid and reduce waste and increase recycling or reuse across all Council buildings and facilities.

Waste Infrastructure and Service Optimisation:

- Investigate alternative landfill daily cover options to conserve landfill void space (such as moveable lids, spray on cover)
- Prepare a long-term financial plan for waste services to ensure continual waste management into the future.

Reduce Waste at Council Buildings and Facilities:

- Develop and implement staff awareness program for new and existing staff which identifies how to avoid and reduce waste in the workplace (to be integrated into induction program).
- Training/Induction of staff on Waste Reduction Program.
- Operations manuals for all Council facilities updated to include waste reduction initiatives.

Recycle and Reuse:

- Develop a plan to increase the collection of green/organic material from Council Parks and Gardens to be processed for use in Council Facilities.

Waste to Energy:

- Investigate viability of landfill gas capture and flaring or energy generation at the Waste Management Facility.

Resource Recovery:

- Investigate viability of increasing resource recovery at the Waste Management Facility by upgrading receival infrastructure and extending acceptable items, including tyres, mattresses and cardboard.
- Plan and deliver receival and resource recovery infrastructure for waste received from major projects (such as large infrastructure deconstruction) or events (such as regional rail and road accidents).
- Investigate and deliver innovative waste management solutions for problem wastes (such as e-waste, tyres, and mattresses).

Disaster Waste:

- Prepare a disaster waste management plan focused on resource recovery outcomes (such as waste from fire and bush fire events, and rail and road accidents).

Community Waste Management and Recycling:

- Investigate and implement urban drop-off locations for separated dry packaging material in partnership with the community and local businesses (such as paper, cardboard, recyclable plastics, and metals).
- Develop policy and supporting mechanisms to incentivise pre-delivery sorting of waste (such as residential, public events, and commercial waste).

Regional Resource Recovery Hub:

- Investigate and assess viability of converting the Broken Hill Waste Management Facility into a regional resource recovery hub.

Circular Economy:

- Develop and formalise industry partnerships with organisations that facilitate circular economy principles such as Container Deposit Scheme, Lifeline and Oz Harvest.
- Investigate local opportunities to become an agent for change in facilitating the development of a circular economy i.e., resource recovery and reuse.
- Develop a Circular Economy Strategy which encourages local innovation in transforming waste, and which supports regional employment and skills transfer.
- Develop and support local markets for recycled, recovered, and transformed clean waste (such as glass, concrete).
- Support community reuse and repair initiatives (such as reduce barriers to buying second hand and repaired products).

Commercial Waste Reduction:

- DCP to include waste reduction initiatives for new-builds and renovations (Construction and Demolition Waste).

Waste Management Policy and Plan:

- Develop a hire Agreement for non-Council event organisers to hire out recycle bins for use at community events.
- Engage with non-Council event organisers to ensure correct waste disposal and recycling practices are maintained during all non-Council events.
- Develop policy and a waste management plan to incentivise commercial regional developers to source separate construction regional demolition waste (such as buy/swap/sell initiatives, garage sales).

14. MINIMISING THE ENVIRONMENTAL IMPACTS OF MINING

Broken Hill City Council is committed to minimising the environmental impacts associated with mining activities to protect ecosystem services and human wellbeing. Council will continue to support the Broken Hill Environmental Lead Program (BHELP) in developing solutions to minimise and manage exposure to lead in the local environment. This includes joint co-ordination of the management and remediation of lead contaminated public land in accordance with an annual work plan. Since 2015, over 20 hectares of public land have been remediated through a partnership between Council and BHELP. This equates to an area over 40 football fields and includes parks, ovals, sporting grounds and playgrounds.

#	Our Focus Areas	Our Targets – Where we want to be?
25	Bypass for heavy vehicles	Broken Hill bypass for heavy vehicles planned.
26	Broken Hill Lead Reference Group	Broken Hill Lead Reference Group work funded by the State Government, Annual report by Council in the ongoing management of lead contamination in Broken Hill.

14.1. WHAT WE WILL DO TO ACHIEVE OUR TARGETS(S):

Bypass for heavy vehicles:

- Continue to advocate (State and Federal Government) to divert mining trucks out of the CBD.

Broken Hill Lead Reference Group:

- Continue to advocate to ensure the continuation of the Broken Hill Lead Reference Group (State Government).
- Continue to facilitate the Broken Hill Lead Reference Group to address the effects of lead contamination on the City of Broken Hill.

15. ENHANCING AND PROTECTING THE NATURAL FLORA AND FAUNA

Broken Hill City Council is committed to enhancing and protecting urban green spaces across the region through leading and supporting revegetation and greening initiatives. In 2022/2023, Council continued to maintain the Living Desert Flora and Fauna Sanctuary to support native wildlife and native plant life in the region. During the same period, Council carried out an annual assessment and implemented control measures for noxious weeds and pests and replaced 11km of damaged and vandalised fencing.

#	Our Focus Areas	Our Targets – Where we want to be?
27	Green Broken Hill	Greening target for Broken Hill established and implementation plan developed, urban heat island effects reduced, vegetation cover in Broken Hill CBD increased
28	Mulga Wetland Ecosystem Stewardship	Council's own plant stock used for continuous revegetation and ecosystem stewardship programs

15.1. WHAT WE WILL DO TO ACHIEVE OUR TARGET(S):

Green Broken Hill:

- Set greening target for Broken Hill CBD and develop implementation plan.
- Investigate opportunities to increase native vegetation in the CBD to reduce urban heat island effects and increase shade.
- Review greening initiatives in the DCP and ensure alignment with Council greening targets.
- Continue to raise community awareness and participate in greening Broken Hill e.g., Planet Ark National Tree Day.
- Continue the work of Albert Morris to green Broken Hill.
- Develop communications material to increase community awareness around Broken Hill regeneration and greening initiatives.

Mulga Wetland Ecosystem Stewardship:

- Continue to propagate Council's own plant stock at Mulga Wetlands and identify other key areas to support ecosystem health and revegetation.

16. BUILT ENVIRONMENT

Broken Hill City Council are committed to enhancing the regions liveability by improving urban building designs to provide better environmental comfort in public spaces. Council aims to enhance both the natural and built environment through facilitating ecosystem stewardship programs and protecting the natural environment through delivering proactive weed management programs and carrying out vegetation rehabilitation initiatives.

#	Our Focus Areas	Our Targets – Where we want to be?
29	Facilitate environmental stewardship in Development Control Plan	Increased vegetation with a set minimum percentage of land requiring landscaping within the development.

16.1. WHAT WE WILL DO TO ACHIEVE OUR TARGET(S):

Facilitate environmental stewardship in Development Control Plan:

- Review the DCP to enhance the natural environment and landscaped areas in new development applications for industrial land.

17. IMPLEMENTATION PLAN

IMPLEMENTATION PLAN: ENERGY EFFICIENCY							
#	Action	Related Target	Performance Measures	Short Term (2025-2026)	Medium Term (2027-2028)	Long Term (2029-2030)	Responsible Council Department(s)
EE1	Conduct and implement findings of energy audits at Council's Administration Building, Art Gallery, and Civic Centre.	1	Energy Audits at Council's Administration Building, Art Gallery, and Civic Centre completed with findings used to inform strategic direction to achieve energy cost savings, energy efficiency and carbon reduction.	☒	☒	☒	
EE2	Install smart interval meters on all Council Buildings for greater energy monitoring.	1	Smart interval meters on all Council Buildings installed.	☒	☒	☒	
EE3	Install LED lighting at all Council buildings and standardise energy efficient LED lighting in all new Council buildings.	1	LED lighting at all Council Buildings installed including standardisation of LED lighting to be installed in all new Council Buildings.	☒	☒	☒	
EE4	Investigate and implement smart technology solutions for greater energy management and efficiency such as lighting controls, sensors, master switches and timers for the Administration Building, Art Gallery, and Civic Centre.	1	Smart technology solutions for energy management and efficiency identified and implemented.	☒	☒	☐	

EE5	Develop adaptive maintenance plans for all Council buildings and facilities.	1	Adaptive management plans for all Council Buildings and Facilities completed.	☒	☒	☐	
EE6	Undertake Climate Risk Assessment for Council Infrastructure and community wellbeing and develop Climate Adaptation and Mitigation Plan for Broken Hill LGA.	3	Climate risk assessment completed and climate adaptation and mitigation plan for the Broken Hill LGA developed and implemented.	☒	☒	☐	
EE7	Develop energy efficiency policy that sets energy efficiency standards for all new Council Buildings and Retrofits based on industry best practice.	1	Energy efficiency policy developed and implemented.	☒	☒	☐	
EE8	Establish energy data monitoring process to track energy use and to identify energy efficiency improvements.	1	Energy data monitoring process established, and staff trained on energy data management.	☒	☐	☐	
EE9	Review Energy Contract to ensure Council is receiving the most competitive market rate.	2	Energy contract reviewed annually.	☒	☒	☒	
EE10	Develop and implement Revolving Energy Fund.	2	Revolving Energy Fund developed and implemented.	☒	☐	☐	
EE11	Investigate viability of transitioning infrastructure that uses gas for heating to renewable energy eg Solar Thermal (Admin Building, Civic Centre and Community Centre).	3	Viability of transitioning infrastructure using gas for heating to renewables eg Solar thermal investigated with findings used to inform strategic plan.	☒	☒	☒	

IMPLEMENTATION PLAN: RENEWABLE ENERGY							
RE1	Undertake cost-benefit-analysis on transitioning Council Buildings to Renewable Energy and develop a plan that prioritises Council buildings with highest energy consumption	4	Cost-Benefit-Analysis on transitioning Council Buildings to renewables completed with findings used to inform strategic plan	☒	☐	☐	
RE2	Establish Council's current renewable energy composition and set renewable energy goal by 2030	4	Council's current renewable energy composition identified and established target goal to achieve increase in renewable energy usage across Council's operations by 2030	☒	☐	☐	
IMPLEMENTATION PLAN: SUSTAINABLE TRANSPORT							
ST1	Undertake cost-benefit-analysis for transitioning Council Fleet to alternate fuel vehicles. Consider staged approach starting with most inefficient vehicles or replacing vehicles that accumulate the most kilometres per year	5	Cost-Benefit-Analysis for transitioning Council Fleet to alternate fuel vehicles completed	☒	☒	☒	
ST2	Conduct market analysis to determine availability of alternate fuel vehicle variants that could replace Council's existing Fleet vehicles	5	Market analysis on alternate fuel vehicles capable of replacing Council fleet vehicles completed with findings used to inform strategic plan	☒	☒	☒	

ST3	Develop and standardise monitoring process for fuel consumption of Council Fleet Vehicles	6	Council fleet fuel consumption data captured and used to report on annual fuel usage, emissions, and operational cost	☒	☒	☐	
ST4	Review use case for each fleet vehicle and restrict use of commercial light fleet vehicles to, only, if necessary, i.e., unsealed roads, need for tray and haulage	6	Use case for each fleet vehicle reviewed	☒	☒	☒	Infrastructure - Fleet
ST5	Continue to encourage and facilitate active transport among staff by developing internal incentives	7	Active transport among staff facilitated with the introduction of internal incentives	☒	☐	☐	People and Culture
ST6	Investigate opportunities to increase urban heat shades along shared paths including greening areas with high foot traffic around Broken Hill to provide relief from direct heat exposure	8	Urban heat island effect in Broken Hill CBD reduced through increased greening and urban heat shades	☒	☒	☒	Infrastructure
ST7	Address road condition complaints and ensure that road maintenance programs are in place and functional whilst maintaining community awareness	8	Maintenance programs in place to assess and maintain road conditions with consideration of community complaints	☐	☐	☐	Infrastructure - Roads
ST8	Undertake annual road asset surveys to maintain safe road conditions for the community	8	Road asset surveys completed on quarterly basis	☒	☐	☐	Infrastructure - Fleet
IMPLEMENTATION PLAN: SUSTAINABLE PROCUREMENT							

SP1	Review existing procurement policy and procedure to align with ISO 20400 Standard - Sustainable Procurement	9	Procurement Policy updated to align with ISO 20400 Standard – Sustainable Procurement	☒	☐	☐	
SP2	Implement sustainability evaluation criteria in procurement policy that requires Council staff to review how a project has considered principles of sustainability in their project before approval	9	Sustainability evaluation criteria included in procurement process with findings reviewed to inform strategic decision making	☒	☒	☐	
SP3	Develop staff induction training on how to consider sustainability during procurement process	10	Staff induction training on how to consider sustainability during procurement developed and implemented	☒	☐	☐	
IMPLEMENTATION PLAN: CARBON EMISSIONS							
CE1	Develop and establish emissions reporting process for electricity usage (Scope 2)	11	Emissions from electricity usage monitored and reported	☒	☐	☐	
CE2	Establish emissions baseline for electricity usage (Scope 2) and Council Fleet Vehicles (Scope 1)	12	Emissions baseline for electricity usage (Scope 2) and Council Fleet Vehicles (Scope 1) established	☒	☐	☐	
CE3	Develop emissions reporting framework for Council operations (Scope 1, 2 and 3)	11	Emissions reporting framework for Council operations (Scope 1, 2, and 3)	☒	☒	☐	
CE4	Establish emissions target to be achieved by 2030	12	2030 emissions target identified	☒	☐	☐	

CE5	Council to monitor progress against Cities Power Partnership pledges	13	Progress against Cities Power Partnership pledges monitored consistently with findings used to inform adaptive management procedure	☒	☒	☒	
CE6	Undertake feasibility study on achieving carbon neutrality across Council operations by 2050 in line with state government emissions target and use findings to inform future planning.	12	Feasibility study on achieving carbon neutrality across Council's operations completed.	☒	☒	☐	
IMPLEMENTATION PLAN: WATER							
W1	Investigate water reduction opportunities across Council operations and develop water efficiency strategy.	14	Water efficiency strategy developed and implemented	☒	☐	☐	
W2	Develop Regional Drought Resilience Plan to reduce the Broken Hill LGA's vulnerability to impacts during drought.	15	Regional drought resilience plan developed and implemented.	☒	☒	☐	
W3	Ensure the efficient use of water through staff education programs and toolbox talks.	14	Tailored staff education program on efficient water use developed and implemented.	☒	☐	☐	
W4	Investigate water efficiency retrofits for existing Council buildings and standardise for all new Council Buildings.	14	Water efficiency retrofits identified and standardised for all new Council buildings. Cost-Benefit-Analysis completed on retrofit options for existing Council buildings.	☒	☒	☒	

W5	Develop maintenance programs that ensures water infrastructure is maintained to operate efficiently (repair leaks etc.). Establish annual audit requirements to identify and report on maintenance issues.	14	Maintenance program for water use efficiency and infrastructure health developed and implemented. Annual water infrastructure audits completed.	☒	☒	☐	
W6	Develop and implement water monitoring program to track water usage and improvements in water efficiency.	14	Water monitoring program developed with data used to identify opportunities to improve water use efficiencies.	☒	☐	☐	
W7	Continue to advocate for water price parity in Broken Hill - State Government/IPART.	16	Council continuously advocates for water price parity in Broken Hill.	☒	☐	☐	
W8	Continue to advocate for the ecological/environmental improvement of Menindee Lakes (State/Federal Government), to have a positive impact on the liveability of the Broken Hill community.	17	Council continuously advocates for socio-ecological improvement of the Menindee Lakes.	☒	☒	☒	
W9	Investigate water efficiency, grey water, water-sensitive design standards into the Council's Development Control Plan (DCP).	14	Water efficiency, grey water, water-sensitive design standards integrated into Council's DCP.	☒	☒	☐	
IMPLEMENTATION PLAN: WASTE							
W1	Update Procurement Policy and guidelines so that purchased goods are derived from recycled material (where possible) E.g., when	18	Procurement Policy and relevant guidelines updated so that purchased goods are derived	☒	☐	☐	

	procuring equipment for public parks such as benches and rubber flooring for children's playgrounds, consider those built from recycled materials.		from recycled material (where possible).				
W2	Audit kerbside bins for baseline composition and volumetric consumption to advise community education programs on best practice "at-home" waste management practice and report on resource recovery improvements.	19	Municipal kerbside bins audited, and findings used to identify potential areas to improve knowledge and awareness of best practice waste management and recycling. Audits used to monitor behavioural change improvements.	☒	☒	☐	
W3	Improve waste data capture and assessment at the Broken Hill Waste Management Facility to support improved resource recovery and service delivery outcomes.	20	Resource Recovery rate improved year over year from date initiated.	☒	☒	☒	
W4	Develop and deliver a community litter reduction education program.	21	Community litter reduction education program delivered with outcome monitored through kerbside waste collection data.	☒	☐	☐	
W5	Improve prevention and prosecution of illegal dumping.	22	Rate of Illegal Dumping reduced year over year with repeat offenders and waste type listed to inform strategic planning.	☒	☒	☒	
W6	Develop Waste Management Strategy.	23	Waste Management Strategy Developed.	☒	☒	☐	

W7	Investigate opportunities to avoid and reduce waste and increase recycling or reuse across all Council buildings and facilities.	24	General waste output from Council buildings ending up in landfill reduced and recycling increased year over year until 2030.	☒	☒	☒	
W8	Investigate alternative landfill daily cover options to conserve landfill void space (such as moveable lids, spray on cover).	23	Alternative daily landfill cover options identified with best option considered and implemented where financially and operationally viable. Landfill lifespan increased as a result of implementation.	☒	☒	☒	
W9	Prepare a Long-Term Financial Plan for Waste Services to ensure sustainability of waste management.	23	Long-term financial plan for waste services to ensure sustainability of waste management developed and implemented.	☒	☒	☒	
W10	Develop and implement staff awareness program for new and existing staff which identifies how to avoid and reduce waste in the workplace (to be integrated into induction program)	24	All Council new and existing staff aware of best practice waste reduction and avoidance strategies in the workplace.	☒	☐	☐	
W11	Training/Induction of staff on Waste Reduction Program.	24	Best practice waste management training/induction program developed.	☒	☐	☐	
W12	Operations manuals for all Council facilities updated to include waste reduction initiatives.	24	Waste reduction initiatives included in operations manuals for all Council facilities.	☒	☒	☐	

W13	Develop a plan to increase the collection of green/organic material from Council Parks and Gardens to be processed for use in Council Facilities.	23	Council Green/Organic materials collection and processing plan developed for use in the landscaping on Council Facilities.	☒	☒	☐	
W14	Investigate viability of landfill gas capture and flaring or energy generation at the Waste Management Facility.	23	Viability of landfill gas capture and flaring or energy generation at the Waste Management Facility investigated with findings.	☒	☒	☒	
W15	Investigate viability of increasing resource recovery at the Waste Management Facility by upgrading receival infrastructure and extending acceptable items, including tyres, mattresses and cardboard.	23,22	Receival infrastructure at the Waste Management Facility upgraded and accepted items extended to include tyres, mattresses and cardboard.	☒	☒	☒	
W16	Plan and deliver receival and resource recovery infrastructure for waste received from major projects (such as large infrastructure deconstruction) or events (such as regional rail and road accidents).	23,22	Receival and resource recovery infrastructure for waste received from major projects (e.g., Commercial and Demolition) delivered.	☒	☒	☒	
W17	Prepare a Disaster Waste Management Plan focused on resource recovery outcomes (such as waste from fire and bush fire events, and rail and road accidents).	23	Disaster Waste Management Plan developed.	☒	☒	☐	
W18	Investigate and implement urban drop-off locations for separated dry	23	Urban drop-off locations for separated dry packaging	☒	☒	☐	

	packaging material in partnership with the community and local businesses (such as paper, cardboard, recyclable plastics, and metals).		material in partnership with the community and local businesses established.				
W19	Develop policy and supporting mechanisms to incentivise pre-delivery sorting of waste (such as residential, public events, and commercial waste).	19	Policy and supporting mechanisms to incentivise pre-delivery sorting of waste developed.	☒	☒	☒	
W20	Investigate and assess viability of converting the Broken Hill Waste Management Facility into a regional resource recovery hub.	23	Conversion of the Broken Hill Waste Management Facility into a regional resource recovery hub investigated with findings used to inform strategic planning.	☒	☒	☒	
W21	Develop and formalise industry partnerships with organisations that facilitate circular economy principles such as Container Deposit Scheme, Lifeline and Oz Harvest.	23	Partnerships with leading organisations in Circular Economy formalised and used to collaborate on opportunities to drive Circular Economy initiatives in the region.	☒	☒	☐	
W22	Investigate local opportunities to become an agent for change in facilitating the development of a circular economy ie resource recovery and reuse.	19	Local opportunities to support and facilitate circular economy and resource recovery initiatives identified.	☒	☐	☐	
W23	DCP to include waste efficiencies initiatives for new-builds and renovations (Construction and Demolition Waste).	23	Waste efficiency initiatives for new builds and renovations included in DCP.	☒	☒	☐	

W24	Develop a Hire Agreement for non-Council event organisers to hire out recycle bins for use at community events.	19	Hire Agreement for non-Council event organisers to hire out recycle bins for use at community events developed and implemented.	☒	☒	☐	
W25	Engage with non-Council event organisers to ensure that correct waste disposal and recycling practices are maintained during all non-Council events.	19	Council engaged with non-Council event organisers and provided guidance on best practice waste management.	☒	☐	☐	
W26	Investigate and deliver innovative waste management solutions for problem wastes (such as green energy wastes, E-Waste, tyres and mattresses).	23	Innovative waste management solutions for problem wastes (such as green energy wastes, E-Waste, tyres, and mattresses) investigated with identified opportunities evaluated to improve Council waste management processes.	☒	☒	☐	
W27	Develop a Circular Economy Strategy which encourages local innovation in transforming waste, and which supports regional employment and skills transfer.	19	Circular Economy Strategy developed.	☒	☒	☒	
W28	Develop plan to support local markets for recycled, recovered, and transformed clean waste (such as glass, concrete).	19	Local markets for secondary materials facilitated.	☒	☒	☐	
W29	Develop policy and a waste management plan to incentivise commercial regional developers to	23	Waste management policy and plan developed and implemented.	☒	☒	☒	

	source separate construction and demolition waste (such as commercial and green energy developments).						
W30	Support community-based waste reduction activities (such as buy/swap/sell initiatives, garage sales).	19	Council endorses community-led waste reduction activities through communication material ie social media, Council website, and print media.	☒	☐	☐	
W31	Support community reuse and repair initiatives (such as reduce barriers to buying second hand and repaired products).	19	Council supports community reuse and repair initiatives by endorsing second hand markets.	☒	☐	☐	
IMPLEMENTATION PLAN: MINIMISING ENVIRONMENTAL IMPACTS OF MINING							
MEIM1	Continue to advocate (State and Federal Government) to divert mining trucks out of the CBD.	25	Council engaging State and Federal Government to divert mining trucks out of the CBD.	☒	☒	☒	
MEIM2	Continue to advocate to ensure the continuation of the Broken Hill Lead Reference Group (State Government).	26	Council continues advocacy and partnership with Lead Reference Group.	☒	☒	☒	
MEIM3	Continue to facilitate the Broken Hill Lead Reference Group to address the effects of lead contamination on the City of Broken Hill.	26	Lead Reference Group is supported by Council and effects of lead contamination in Broken Hill continues to be reduced.	☒	☒	☒	

IMPLEMENTATION PLAN: ENHANCING AND PROTECTING THE NATURAL FLORA AND FAUNA							
EPNFF1	Set greening target for Broken Hill CBD and develop implementation plan.	27	Implementation Plan for greening Broken Hill developed and implemented.	☒	☐	☐	
EPNFFF2	Investigate opportunities to increase native vegetation in the CBD to reduce urban heat island effect and increase shade.	27	Opportunities to increase native vegetation in the CBD to reduce urban heat island effects and increase greening targets investigated with findings used to inform strategic planning.	☒	☐	☐	
EPNFF3	Review greening initiatives in the DCP and ensure alignment with Council greening targets.	27	Greening initiatives in the DCP reviewed and amended to align with Council greening targets.	☒	☐	☐	
EPNFF4	Continue to raise community awareness and participate in greening Broken Hill eg Planet Ark National Tree Day.	27	Council continuously raises community awareness and participates in initiatives designed to increase greening of Broken Hill.	☒	☒	☐	
EPNFF5	Continue the work of Albert Morris to green Broken Hill.	27	Continuous progress made against work started by Albert Morris to green Broken Hill.	☒	☒	☒	
EPNFF6	Develop communications material to increase community awareness around Broken Hill regeneration and greening initiatives.	27	Communications material to increase community awareness around Broken Hill regeneration and greening initiatives developed.	☒	☐	☐	
EPNFF7	Continue to propagate Council's own plant stock at Mulga Wetlands	28	Council propagated own plant stock at Mulga Wetlands and	☒	☒	☒	

	and identify other key areas to support ecosystem health and revegetation.		identified key areas to support ecosystem health and revegetation. Improvement of landscape from revegetation initiative monitored and progress tracked as part of adaptive management process.				
IMPLEMENTATION PLAN: BUILT ENVIRONMENT							
BE1	Review the DCP to enhance the natural environment and landscaped areas in new development applications for industrial land.	29	DCP reviewed with opportunities to enhance the natural environment and landscaped areas in new development applications for industrial land identified and implemented.	☒	☒	☐	

BROKEN HILL
CITY COUNCIL

www.brokenhill.nsw.gov.au

INFRASTRUCTURE AND ENVIRONMENT COMMITTEE

February 10, 2025

ITEM 2

BROKEN HILL CITY COUNCIL REPORT NO. 18/25

SUBJECT: TOWN SQUARE - LOCATION OF THE WOMEN'S MINING MEMORIAL D25/6064

Recommendation

1. That Broken Hill City Council Report No. 18/25 dated February 10, 2025, be received.

2. That Council consider the results of the public survey, advertised from 30 January 2025 to 10 February 2025, relating to the preferred location of the Women's Mining Memorial.

3. That Council approve the result of the public survey and re-establish the Women's Mining Memorial in the preferred location of Option 1, on the Northeastern Corner of Town Square.

Executive Summary:

The Women's Mining Memorial is a historic iconic monument that was erected in the year 2000 by the Mining Unions of Broken Hill to honour the women who had contributed significantly to the industrial history of Broken Hill. The memorial was originally placed at the front of the Broken Hill Town Square on Argent Street.

Designs and consultations were carried out in 2023 by Council through the engagement of a specialist urban planning consultant firm to redevelop the Town Square under Council's CBD Master Plan. One of the key points raised during the consultations was the relocation of the memorial from the Town Square. A location was yet to be determined at that stage.

Construction works commenced at the Town Square in August 2024 with the memorial being removed and stored at Council's Depot.

In a public survey advertised from 3 December 2024 to 20 January 2025, a vast majority of respondents voted to reinstate the memorial back to the Town Square.

Council had identified two (2) preferred locations for the reinstatement of the memorial in the new Town Square sought opinion of the community for their preferred location through a public survey being advertised between 30 January and 10 February 2025. Council received 321 votes through the Public Survey, with 226 voting in favour of Option 1, on the Northeastern Corner of Town Square. This report recommends that Council approve the result of the public survey and re-establish the Women's Mining Memorial in the preferred location of Option 1, on the Northeastern Corner of Town Square.

Report:

The Women's Mining Memorial

The Women's Mining Memorial is a special historic monument dedicated to the women of Broken Hill who have contributed significantly to the industrial and economic history of city. It is a medium sized structure made of black aggregate granite style natural rock with written encryptions and a photographic image base on a support and family orientated theme.

A photograph of the memorial in its current location is shown in the image below.

The monument is currently located at Council's Works Depot at Warnock Street, Broken Hill.

Consultations in 2024 and the Town Square Redevelopment

Broken Hill City Council carried out the CBD Master Plan in 2021 which is focuses on a staged revitalisation of the Central Business District (CBD) to provide for a more welcoming, modern center for all demographic groups of the city and seasonal visitors. The master plan has been progressively implemented with projects like the CBD Banner Poles, Argent Street Paving Upgrades, the new Broken Hill Library, and the Town Square Redevelopment completed or currently underway.

The Town Square is one of the focus areas of the CBD Master Plan. Council engaged specialist urban planning and design consulting firm Jensen Plus to carry out design works for the redevelopment of the Town Square. The design process was completed in 2023.

A summary of notable public consultations that were carried out as part of the design phase is presented here.

- Consultation of local businesses on 27 April 2023
- Community consultation session on 1 July 2023
- An online survey was held between 2 July 2023 to 20 July 2023

The Women's Mining Memorial was a subject of the consultations with a majority outcome suggesting the removal of the memorial from the Town Square and its subsequent relocation to another significant location in the city of Broken Hill. The final location was to be a subject of further consultation.

Construction works at the Town Square commenced in August 2024 with the Women's Mining Memorial removed and placed at Council's Works Depot at Warnock Street, Broken Hill.

Further Consultation - Public Survey of 2024

Council advertised a public survey of preferred general locations from 3 December 2024 to 20 January 2025, accessible though Council's website, Facebook, and in-person voting available at Council Administration Offices.

A total of 895 responses were received with 672 online, 36 in-person and 187 from a community petition, yielding the following survey outcomes:

- Town Square – 77%

- Line of Lode – 13%
- Near the Trades Hall – 9%
- Other 1%

Most votes have been for the reinstatement of the Women's Mining Memorial back at the Town Square.

Proposed locations at the Town Square

Based on the survey results, Council recommissioned the Town Square's principal consultant Jensen Plus to identify locations to reinstate the memorial at the Town Square.

Factors considered by the principal design consultant to select the locations included:

- Accessibility considerations under council's general Disability Inclusion Action Plan
- Requirements for ambulance access from Argent Street into the Town Square
- Site views for persons using the square after it is redeveloped
- The location of underground electrical and hydraulic services
- Protected tree preservation

The locations identified by Jensen Plus have been considered and reviewed by Council's Project Consultative Group (PCG) meeting on 15 January 2025. The Project Consultative Group (PCG) comprises members of the Council's elected body, council staff and elected community representatives.

Two (2) preferred locations have been identified (images below):

- Location 1: Argent Street, at the front Northeast corner of the Town Square
- Location 2: Argent Street, at the front Northwest corner of the Town Square

From this PCG a report (No. 5/25) was presented to Council at the Ordinary Council meeting, held 29 January 2025 and moved unanimously to approve the reinstatement of the Miner's Memorial at the Town Square and that a public survey be undertaken to determine the preferred location. The public survey was advertised between 30 January and 10 February 2025. Council received 321 votes through the Public Survey, with 226 voting in favour of Option 1, on the Northeastern Corner of Town Square.

This report recommends that Council approve the result of the public survey and re-establish the Women's Mining Memorial in the preferred location of Option 1, on the Northeastern Corner of Town Square.

Community Engagement:

Several community engagement sessions were carried out by Council through the engagement of Jensen Plus in 2023 to finalise the design of the new Town Square with subsequent public survey focusing on the finalised general location of the memorial from 3 December 2024 to 20 January 2025. Please see the body of this report for further details.

Strategic Direction:

Key Direction:	1	Our Community
Objective:	1.5	Our built environment supports our quality of life
Strategy:	1.5.1	Maintain the character of our historic City through good design and initiatives

Key Direction:	4	Our Leadership
Objective:	4.1	Openness and transparency in decision making
Strategy:	4.1.4	Ensure social, environmental, cultural and economic sustainability are considered when making decisions

Relevant Legislation:

Local Government Act 1993
Local Government (General) Regulation 2021

Financial Implications:
The financial implications of this report, are included in operational costs for the 2024/25 financial year.

Attachments
There are no attachments for this report.

CODIE HOWARD
DIRECTOR INFRASTRUCTURE AND ENVIRONMENT

JAY NANKIVELL
GENERAL MANAGER

INFRASTRUCTURE AND ENVIRONMENT COMMITTEE

December 16, 2024

ITEM 3

BROKEN HILL CITY COUNCIL REPORT NO. 19/25

SUBJECT: MINUTES - 28 NOVEMBER 2024 BROKEN HILL LEAD REFERENCE GROUP D24/60928

Recommendation

1. That Broken Hill City Council Report No. 19/25 dated December 16, 2024, be received.
2. That the minutes of the Broken Hill Lead Reference Group Meeting held 28 November 2024 be received.

Executive Summary:
The minutes of the Broken Hill Lead Reference Group for meeting held 28 November 2024 are presented to Council for endorsement.

Report:
The Broken Hill Lead Reference Group (BHLRG), chaired by the Broken Hill City Council, is a collaborative of the many companies and community representatives that work with, have an interest in and contribute to lead management in the local community.

The BHLRG has developed the Broken Hill Lead Reference Group Integrated Strategy to provide a forum for information exchange and to guide activity relating to lead issues for Broken Hill.

Community Engagement:
Community Engagement through community representation on the Committee

Strategic Direction:

Key Direction:	4.	Our Leadership
Objective:	4.1	Openness and transparency in decision making
Strategy:	4.1.5	Support the organisation to operate within its legal framework

Relevant Legislation: Nil

Financial Implications: Nil

Attachments

1. ⇩ Minutes - 28 November 2024 Broken Hill Lead Reference Group

CODIE HOWARD
DIRECTOR INFRASTRUCTURE AND ENVIRONMENT

JAY NANKIVELL
GENERAL MANAGER

MINUTES OF THE BROKEN HILL LEAD REFERENCE GROUP (BHLRG) MEETING HELD THURSDAY, 28 NOVEMBER 2024 10.00AM, AGED PERSONS REST CENTRE

Meeting commenced at 10.00am

Present

Marisa Pickett	Manager Waste and Sustainability (BHCC) - Chair
Councillor Michael Boland	Council Delegate
Devon Roberts	Broken Hill Mines (BHM)
Frank Dauge	Broken Hill Mines (BHM)
Frances Boreland	Broken Hill Environmental Lead Program (BHELP)
Vilmae Appleton	Far West Local Health District (FWLHD)
Kelli Morris	Far West Local Health District (FWLHD)
Georgina Seward	Public Health Unit (PHU)
Nyrie Waite	Administration Officer – (BHCC) - Minute Taker

Present Via Teams

Judi Louvel	Broken Hill Environmental Lead Program (BHELP)
Cathy Dyer	Maari Ma
Neil Glastonbury	Transport for NSW (TfNSW)
Linda Mason	Western NSW Local Health District (WLHD)
Christina Low	Broken Hill Environment Lead Program (BHELP)

Apologies

Gill Gallagher	Environment Protection Authority (EPA)
Jessica Ierace	Environmental Health Officer (BHCC)

Welcome with introductions around the table and on Teams.

Acknowledgement of Country

Acknowledgment of Country recited by Marisa Pickett.

Confirmation of Minutes of Previous Meeting

Previous meeting:	22 August 2024
Moved:	Frances Borland
Seconded:	Georgie Seward

1 Matters Arising from Previous Minutes

Abe from SafeWork to advise when he will be visiting Broken Hill.

Judi Lovel advised she has not been able to contact Abe, Georgie Seward advised that she has been in contact with Abe and may be able to assist.

Teck Metals to advise date and time of a zoom meeting to be organised for their presentation and questions.

A zoom meeting was held between Broken Hill Lead Reference Group and representatives from Teck Metals and Trail Area Health & Environment Committee on Tuesday 5 November 2024.

Reach out to Aboriginal Affairs and or Aboriginal Housing ie Paul Kemp or Bilyara Bates for a representative to attend the BHLRG meetings.

Nyrie to investigate.

2 Correspondence In –

21/11/2024 – email from Judi Louvel , BHELP – Contaminated Land Training – forwarded to BHLRG 21/11/2024.

27/11/2024 – email from Michelle Laurie Trail Area Health & Environment Committee, Canada - copy of the presentation from 5/11/2024 and answers to questions raised. Forwarded to BHLRG 28/11/2024.

3 Correspondence Out – NIL

4 Quarterly Reports

4.1 Broken Hill Environmental Lead Program (BHELP) Report attached and tabled.

Meeting update: Frances reviewed the report for the meeting.

Kelli Morris commented on the success of Lead Ted visits.
Kelli also questioned if the difficulty in contacting families is that they are not aware of the service BHELP provides and could LHD assist?
Frances advised the many ways she uses to contact people, including text messages and even a phone call via teams as that has a local phone number. Francis starts contacting clients within a week of the referral from LHD. Vilmae Appleton offered to supply the BHELP phone number to clients.

Vilmae advised that post remediation visits are very successful.

Marisa Pickett advised the houses that BHELP have referred to Council will require major work to alleviate the issue with the stormwater. Judi Louvel suggested a meeting with Marisa and Adam Foster from Perilya to discuss how they can assist the families.

Clr Boland asked about the houses that are poorly kept/untidy – they can be rental properties or owner occupied.

People resist the remediation for a number of reasons:-

- they worry their rent will increase
- they are unaware of what it entails
- that there are issues with lead in the area
- that it is free
- if there are any legal ramifications once the remediation is complete.

4.2 Maari Ma Health (No written report)

Meeting update: - Cathy Dyer gave a verbal report.

Maari Ma tested 49 children in the last quarter. Lead levels are consistent. There is good correlation with the point of care testing and the venous testing used to follow up on children with elevated lead levels.

Staff have been attending operational meetings to advocate for families to have their houses remediated.

The lead expert panel arranged for Maari Ma to receive a point of care testing machine from the Hunter New England region to be used as a back up, when needed.

4.3 Western Local Health District (WLHD) Report attached and tabled.

Meeting update: – Linda Mason advised a change in format to the report and reviewed the report for the meeting.
If there are any questions, please email Linda - Linda.Mason@health.nsw.gov.au

4.4 Broken Hill Operations Report attached and tabled.

Meeting update: – Devon Roberts reviewed the report. No update to the written report.

Marisa confirmed with Devon that nothing would change for the Lead Reference Group Meeting now that Broken Hill Mines is managing the site. They are looking at an application to extend the mine to the north.

4.5 Perilya (no report)

Meeting update: no representative at the meeting

4.6 Essential Water (no written report)

Meeting update: – No representative at the meeting.

5 General Business

Change the meeting day to Tuesday or Wednesday due to staff changes at BHCC. Wednesday suited the majority of the meeting participants. Jess Ierace will Chair the meeting beginning 2025.

Cathy inquired if any contact has progressed between Lake Macquarie Council and Broken Hill City Council, after the presentation at the last meeting, regarding assistance with planning effects, notification on land, information being provided to prospective home buyers and other relevant information from Lake Macquarie Council. Marisa will Liaise with Jess Ierace for discussion at the next meeting.

Vilmae expressed concern at the amount of dust being disturbed by the street sweeper and the water didn't appear to be of an assistance. Marisa advised a new street sweeper was on order and will hopefully arrive early 2025.

6 Action List for next meeting

Action	Responsible Person	Date due
Abe from SafeWork to advise when he will be visiting Broken Hill - Judi to advise Nyrie	Abe Lau and Judi Louvel	Ongoing
Contact Essential Water for a representative to attend the meetings	Nyrie to investigate	
Reach out to Aboriginal Affairs and or Aboriginal Housing ie Paul Kemp or Bilyara Bates for a representative to attend the BHLRG meetings.	Nyrie to investigate	

7 Next Meeting Date

10am Wednesday 26 February 2025, Aged Persons Rest Centre and via Teams.

12 Meeting Closed

10.30am

BHELP REPORT TO BROKEN HILL LEAD REFERENCE GROUP
November 2024

1. Remediation/Abatement Program

Home Remediation/Abatement Program – Round 9 is well underway with 4 residences already completed.

Home remediation and abatement includes.

- Removal and replacement of contaminated soils.
- Removal of unstable lead paint and repainting.
- Cleaning or replacing carpets with hard flooring.
- Sealing areas inside the residence where dust has a pathway for entry.

To date.

- 36 Children have been referred for a home assessment in Round 9
  - 11 have been triaged as urgent
  - 17 as priority 1a
  - 8 as priority 1b

Challenges faced with home assessment including possible solutions.

A range of challenges are faced in assessing homes and undertaking abatement works. These are outlined below.

- Getting in contact with the owners/tenants to organise assessment times.
- Sometimes residents are not there when we arrive.
- Getting scopes approved and returned by owners/tenants.
- Residents' expectations of wanting more than we can/need to provide
- Residents not understanding how to care for the remediation long term and sometimes ending up with recontamination and then further remediation required.
- Some houses are poorly kept/untidy, making it hard to access test areas especially rubbish etc in yards.
- The standard of some housing is poor and not really suitable for living in.
- Families move from house to house meaning possible exposure in the houses moved into that may not have been remediated.
- Families refusing remediation.
- Owners refusing remediation.
- Children spending large amounts of time between houses making it difficult to ascertain where the lead exposure issues are.

- Inability to get remediation completed after home assessment in timely fashion or in some cases not at all due to backlog.
- Possible breakdown of trust and community engagement due to backlog
- People are sometimes a bit uncomfortable with the home assessment process, especially if the house is a bit untidy.
- Pets – large dogs, occasional other large pets.
- Unkempt yards/lots of junk/dog faeces are occasionally a problem.

How we have addressed these challenges

- Using multiple communication methods to engage with resident (phone, email, SMS)
- Sending a reminder the day before to remind residents we are coming
- Working after standard office hours to accommodate residents who work
- Booking in SoW when we are completing the home assessment
- Spending time with the resident to explain the SoW and answer questions before obtaining a signature
- Providing a remediation fact sheet relating to the remediation process
- Putting people at ease and if they are worried about the housekeeping, we assure them our own housekeeping skills are just the same

2. Community Engagement and Communications Activities

- Term 4 is well underway, BHELP is busy working within schools delivering incursions. As always Lead Ted is a huge hit with the school children.
- Lead Ted was also a welcome participant at the NADOC celebrations in Sturt Park where we engaged with the children both small and not so small

3. Technical Activities

- Technical advice has been provided about:
    - potential research projects (to Health, ANU & EPA)
    - evidence on sources of lead in BH soils (to internal EPA).
    - advice to general public enquiries relating to lead concerns.

- BHELP attends quarterly Trail Health Environmental Committee meetings to learn from each other about reducing lead exposure in our respective communities. Trail is a smelter community in Canada that has significantly reduced lead exposure while still maintaining an active lead industry.

4. Other Activities

- Dust monitoring program is being maintained.
- Monitoring of landscape supplies is being maintained – all samples are well within the guidelines for soil lead levels.
- Attended presentation by Trail (Canada)
- With the purchase of an updated XRF training is underway to ensure competence in using the new machine.

Blood lead levels in children aged 6 months to <5 years, Broken Hill, by quarter, 2018 – 2024

1. Blood lead levels for children aged 1 year to <5 years*

Key points for screening in the third quarter, 2024.

- The number of children screened for the third quarter of 2024 (n=147) is slightly less (3%) than for the same period in 2023 (n=151) (Table 3).
- The downward trend seen in monthly testing for the third quarter compared to quarters one and two in 2024 is consistent with patterns seen in previous years (Figure 1). The highest monthly total of children screened during the third quarter occurred in July (n=51). Overall, the number of children screened, year to date, is the highest for the same period for the reported years (2018-2024).
- The blood lead level (BLL) geometric mean for the third quarter of 2024 was below the guideline at 3.8 µg/dL, the lowest for this quarter since 2021 (Table 3).
- There was an upward trend seen in monthly BLL geometric means for the third quarter, from 3.2 µg/dL in July to 4.7 µg/dL in September (Figure 2).
- Year to date, 43% of children screened had a BLL above the guideline, the highest since 2020 for the same period (Figure 3).
- Table 3 presents a cohort analyses by age group i.e., 12 to 17 months, 18 to 23 months and 2,3 and 4 years. It can be seen that the highest number of children screened year to date were in the 12 to 17 months age group (n=142), while the lowest number screened were in the 3-year-old age group (n=91). Three- and four-year-olds have the equal highest proportion of children with BLLs under the guideline (64%) while children aged 12 to 17 months and 2 years had equal lowest proportion for the same (59%).

Table 1: Blood lead levels, first quarter (January – March), 2018-2024

Year	Geometric Mean	Max	Mode	Median	95 Percentile	Children Screened
2024	5.07	31.00	2.00	5.40	15.30	275
2023	5.08	65.00	2.00	5.15	16.47	264
2022	4.43	25.30	2.00	4.70	11.04	174
2021	3.98	30.10	2.00	3.80	14.07	272
2020	5.52	26.10	2.00	5.70	16.22	308
2019	5.80	41.80	2.00	6.00	17.05	266
2018	5.76	56.70	2.00	6.30	17.30	265

Table 2: Blood lead levels, second quarter (April - June), 2018-2024

Year	Geometric Mean	Max	Mode	Median	95 Percentile	Children Screened
2024	3.59	31.88	2.00	3.40	12.76	203
2023	3.37	48.40	2.00	2.00	11.62	189
2022	3.57	65.00	2.00	3.30	12.32	213
2021	3.20	20.80	2.00	2.00	12.98	196
2020	4.35	34.70	2.00	4.10	15.16	175
2019	5.16	23.10	2.00	5.20	15.30	202
2018	4.41	21.70	2.00	4.50	14.20	152

**All children = Aboriginal, non-Aboriginal and Aboriginality not stated total for age group*

Prepared by: L. Mason, Public Health Unit, WNSWLHD utilising the HIU Broken Hill Lead Program Analytics Dashboard.
Data Source: emR CHBL003. Date of extraction: 9.10.2024

Table 3: Blood lead levels, third quarter (July-September), 2018-2024

Year	Geometric Mean	Max	Mode	Median	95 Percentile	Children Screened
2024	3.78	24.01	2.00	3.40	13.30	147
2023	3.90	34.50	2.00	3.70	17.15	151
2022	4.12	50.50	2.00	3.90	15.35	122
2021	2.79	15.30	2.00	2.00	7.97	90
2020	4.02	27.95	2.00	4.40	10.54	124
2019	4.30	14.10	2.00	4.80	11.58	115
2018	3.83	16.30	2.00	4.20	9.55	131

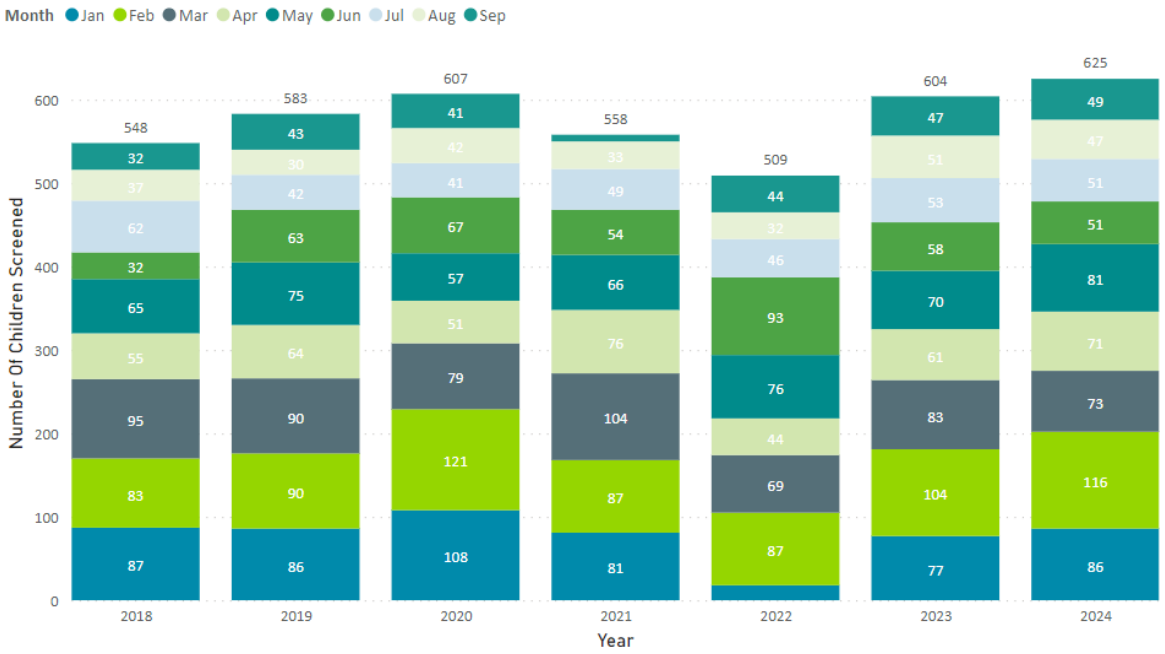


Figure 1: Number of children screened by month as of the third quarter, 2018-2024

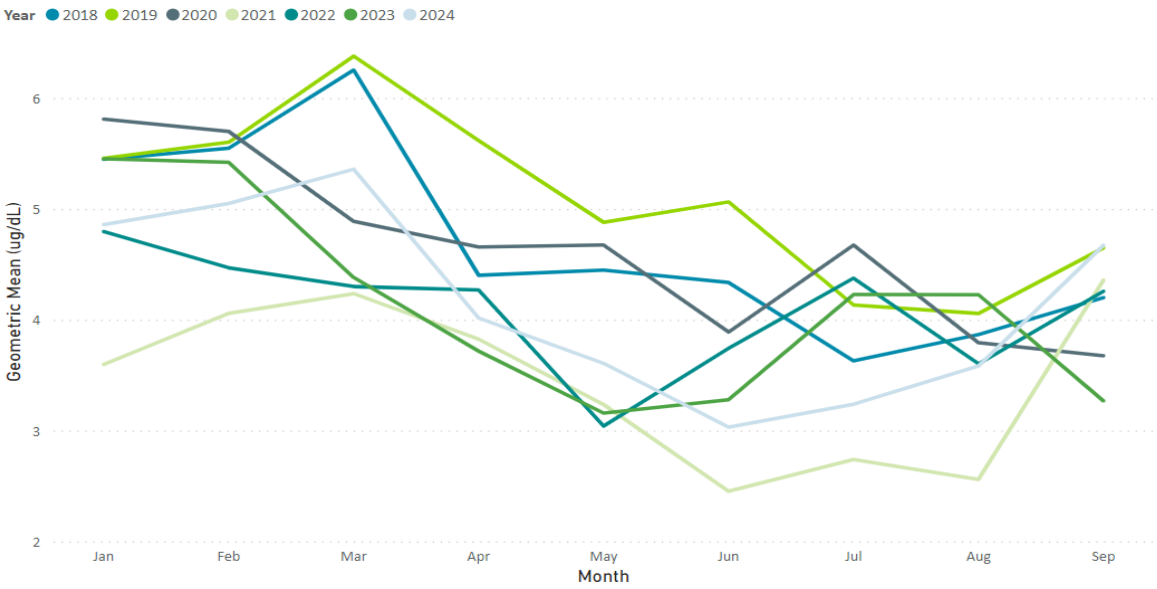


Figure 2: Monthly blood lead levels geomeans as of the third quarter, 2018-2014

**All children = Aboriginal, non-Aboriginal and Aboriginality not stated total for age group*

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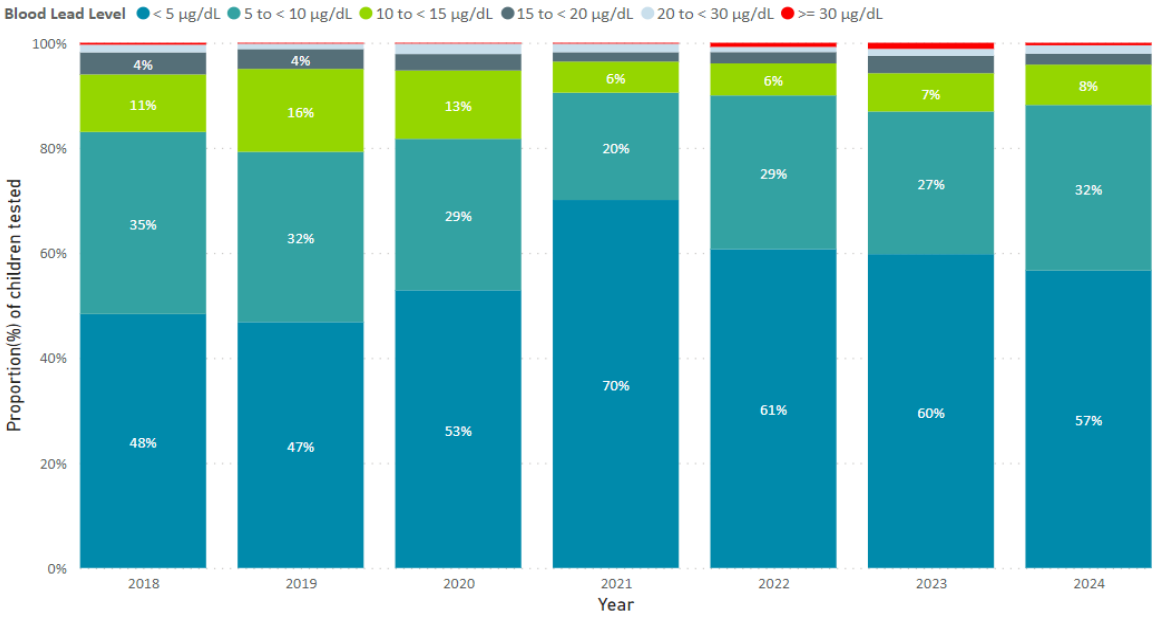

Figure 3: Proportions of children tested by year and blood lead level category as of the third quarter, 2018-2024

Table 4: Age group cohort analyses by blood lead level category as of third quarter,2024[1]

Blood Lead Range (µg/dL) / Testing Age	< 5 µg/dL		5 to < 10 µg/dL		10 to < 15 µg/dL		15 to < 20 µg/dL		20 to < 30 µg/dL		>= 30 µg/dL		Total	
	Count	count(%)	Count	count(%)	Count	count(%)	Count	count(%)	Count	count(%)	Count	count(%)	Count	count(%)
12 Month	84	59.15%	48	33.80%	6	4.23%	2	1.41%	2	1.41%	0	0.00%	142	100.00%
18 Month	85	60.71%	42	30.00%	9	6.43%	2	1.43%	1	0.71%	1	0.71%	140	100.00%
2 year	81	59.12%	40	29.20%	12	8.76%	2	1.46%	2	1.46%	0	0.00%	137	100.00%
3 year	58	63.74%	21	23.08%	8	8.79%	3	3.30%	1	1.10%	0	0.00%	91	100.00%
4 year	83	63.85%	36	27.69%	8	6.15%	1	0.77%	1	0.77%	1	0.77%	130	100.00%

2. Blood lead levels for children aged 6 months to <12 months^

Key points for screening in the third quarter, 2024

- The number of children screened for the third quarter of 2024 (n=40) is consistent with previous years for the same period (Table 7). The highest monthly total of children screened during the third quarter occurred in September (n=14). However, the number of children screened year to date is the lowest since 2018 (Figure 4). This may be due in part to the change in testing protocol at Maari Ma Health Aboriginal Corporation where children in this cohort are no longer screened.
- The BLL geometric mean for the third quarter is below the guideline at 2.3 µg/dL, though this is the highest since 2020 for the same reporting period. Year to date, with the exception of February where the monthly geomean was 3.8 µg/dL, the monthly geomeans for this cohort in 2024 have remained relatively steady (Figure 5).
- Year to date, 90% of children screened had a BLL below the guideline, the highest since 2021 for the same period (Figure 6).

^To fit most closely to previous <12 months testing, as conducted up to 2012, this includes all children tested 5 months to <12 months.

[1] Totals may vary as the analysis in Table 4 is based on a child's first test in each of the represented age groups during the stated reported period. As such, some children may have been counted in more than one age group during the stated time period.
**All children = Aboriginal, non-Aboriginal and Aboriginality not stated total for age group*

Prepared by: L. Mason, Public Health Unit, WNSWLHD utilising the HIU Broken Hill Lead Program Analytics Dashboard.
Data Source: emR CHBL003. Date of extraction: 9.10.2024

Table 5: Blood lead levels, first quarter, 2018 – 2024

Year	Geometric Mean	Max	Mode	Median	95 Percentile	Children Screened
2024	2.88	13.87	2.00	2.00	6.99	44
2023	2.78	16.20	2.00	2.00	8.27	72
2022	2.59	9.70	2.00	2.50	8.86	57
2021	2.47	11.20	2.00	2.00	6.44	74
2020	3.03	17.30	2.00	2.00	8.16	88
2019	3.49	13.50	2.00	3.55	10.43	56
2018	2.66	6.90	2.00	2.00	5.98	34

Table 6: Blood lead levels, second quarter, 2018 – 2024

Year	Geometric Mean	Max	Mode	Median	95 Percentile	Children Screened
2024	2.41	5.10	2.00	2.00	4.70	40
2023	2.22	11.40	2.00	2.00	5.15	46
2022	2.75	16.50	2.00	2.00	9.40	49
2021	2.29	8.10	2.00	2.00	5.03	44
2020	2.37	9.40	2.00	2.00	4.35	47
2019	3.09	15.90	2.00	2.00	9.15	52
2018	2.84	13.20	2.00	2.00	10.53	36

Table 7: Blood lead levels, third quarter, 2018 – 2024

Year	Geometric Mean	Max	Mode	Median	95 Percentile	Children Screened
2024	2.32	9.73	2.00	2.00	5.74	40
2023	2.21	7.80	2.00	2.00	6.76	39
2022	2.24	6.30	2.00	2.00	5.04	40
2021	2.25	13.80	2.00	2.00	4.37	35
2020	2.42	6.40	2.00	2.00	5.08	43
2019	2.40	7.60	2.00	2.00	6.01	48
2018	2.62	21.20	2.00	2.00	10.13	40

**All children = Aboriginal, non-Aboriginal and Aboriginality not stated total for age group*

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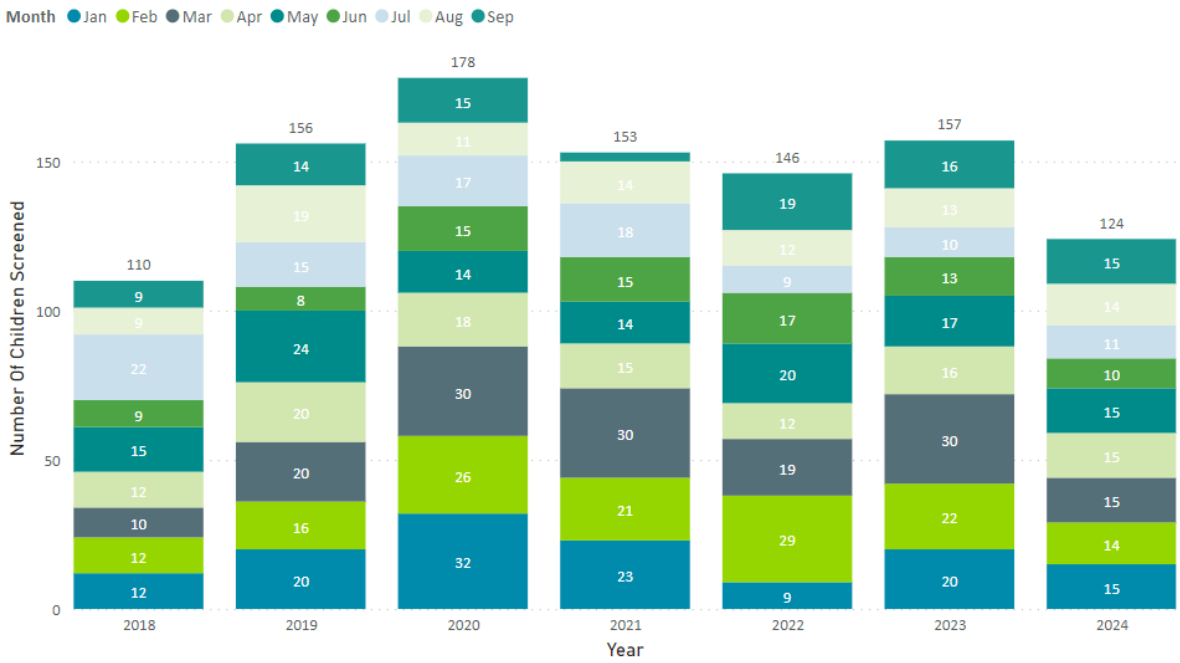

Figure 4: Number of children screened by month as of the third quarter, 2018-2024

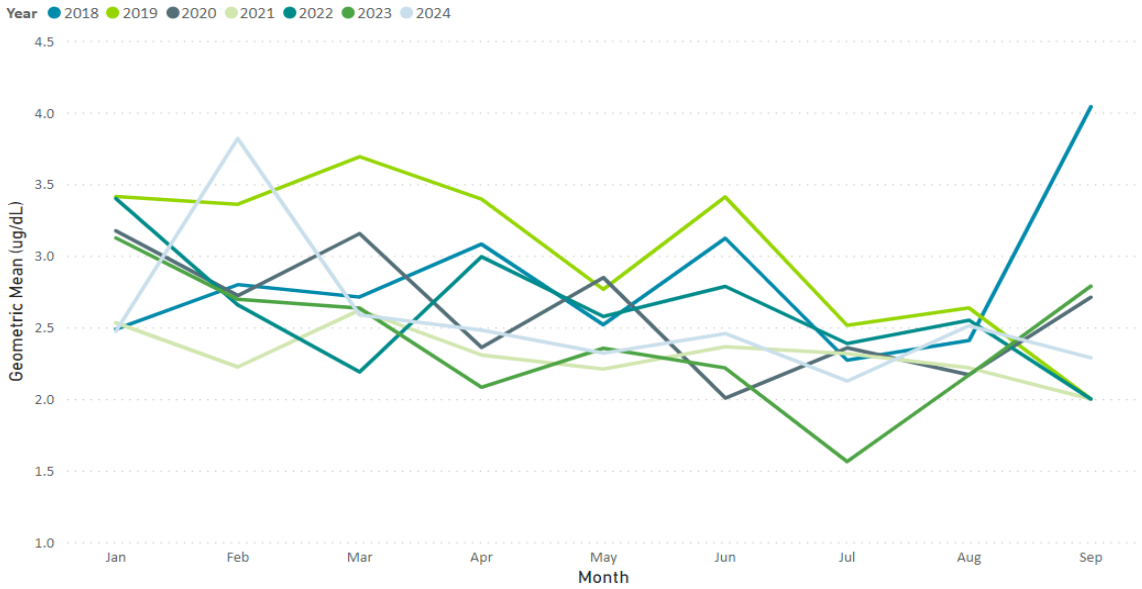

Figure 5: Monthly blood lead levels geomeans as of the third quarter, 2018-2014

**All children = Aboriginal, non-Aboriginal and Aboriginality not stated total for age group*

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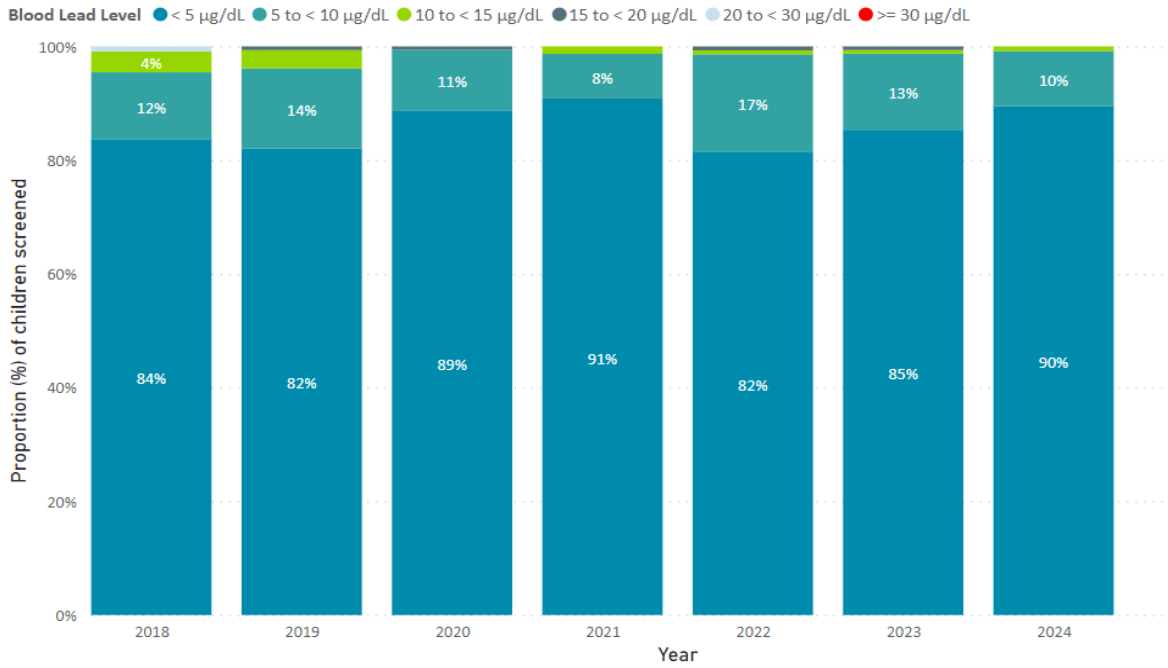

Figure 6: Proportions of children tested by year and blood lead level category as of the third quarter, 2018-2024

Methodology notes

- Blood lead levels included in the analyses were only from those children whose blood test was their first valid test for the calendar year, except where specifically noted (i.e., Table 4).
- Where a child had more than one test result for the year to date, the first result was used in the analysis. However, if a venous blood lead result had been recorded, this result was used in the analysis, irrespective of its value.
- Geometric means reported here are not age-sex standardised.

**All children = Aboriginal, non-Aboriginal and Aboriginality not stated total for age group*

Prepared by: L. Mason, Public Health Unit, WNSWLHD utilising the HIU Broken Hill Lead Program Analytics Dashboard.
Data Source: emR CHBL003. Date of extraction: 9.10.2024

Broken Hill Operations Pty Ltd Quarterly Activities Report

August to November 2024

Occupational Hygiene Monitoring

Six-monthly Blood Lead testing on employees and required contractors was conducted in early August with only one elevated result. NSW RR was notified on 28 August and a management plan was initiated for the individual. The individual has since been retested and the level has fallen significantly. Blood lead testing is planned for early December.

The latest round of occupational hygiene sampling is being conducted in early December and includes monitoring for inhalable dust and lead, respirable dust (crystalline silica), welding fume, and personal noise. There has previously been a focus on respiratory protection fit testing to ensure employees and contractors are using PPE correctly and the selected PPE is adequate.

Dust Suppressant Application

The application of Total Ground Control (TGC) dust suppressant to free (unused) areas of the site is ongoing with the increase in wind activity. Green dye is no longer used in TGC as it was unstable in UV light and separated during storage. A Dust Suppressant called Dustbinder is continuing to be used on site roads and Blackwoods TSF2 and is effective in controlling dust lift-off from road and tailings dam surfaces for approximately three months. Dustbinder has been used repeatedly on TSF2 during tailings harvesting operations to control dust lift-off.

A spray system is being installed across Cells 2 and 3 of TSF2 and tests have been successful.

Development Approval Modifications

MP 07_0018 MOD12 for the mining of northern deposits will be submitted early in 2025. Particulars of the Modification applications can be viewed on the DPIE Major Projects Portal at www.planningportal.nsw.gov.au/major-projects.

Rehabilitation Strategy

The Rehabilitation Management Plan (required under the Mining Act) is being updated to incorporate recommendations from a recent Tailings Targeted Assessment Program conducted by NSW RR. The Rehabilitation MP and Strategy is developed with the input of regulators and other stakeholders.

Rasp Mine Operational Updates

Broken Hill Mines has taken over Broken Hill Operations and the Rasp Mine as of 1 November 2024. Underground drilling and development works have resumed with contractors CDHC and Byrnecut engaged to conduct the work.

BROKEN HILL

CITY COUNCIL

www.brokenhill.nsw.gov.au