

A NEW DIMENSION

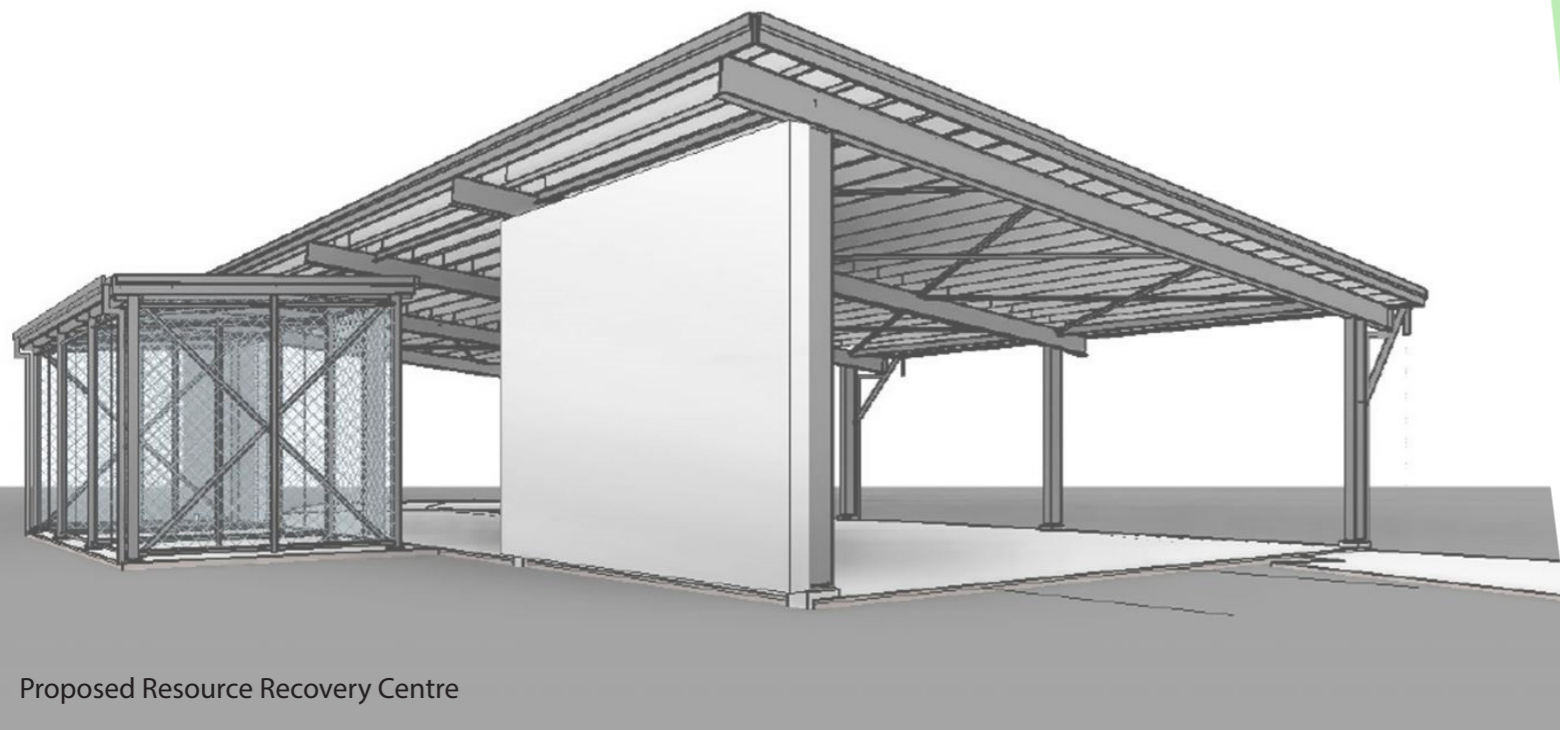
A Strategy for the Management of
Resource Recovery and Waste in
Livingstone Shire to 2030



Acknowledgement of Country

Livingstone Shire Council acknowledges and pays respect to the Darumbal and Woppaburra people as Traditional Custodians of the land within Livingstone. Council also acknowledges and pays its respects to the Aboriginal and Torres Strait Islander people who now reside within this area.

The Our Living Coast Strategy commits to acknowledging the history and ongoing contributions of Aboriginal and Torres Strait Islander people to the Livingstone region and the fundamental role they play in shaping our region.



Proposed Resource Recovery Centre

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VISION

Livingstone Shire Council leads and supports the community to transition to a circular economy for better health, environmental and sustainability outcomes.



MAYOR'S MESSAGE

Recently, there has been rapid change in the waste management space, with both the Queensland and Federal governments reflecting this change in their respective waste governance frameworks.

These frameworks clearly outline their respective positions on waste, with a stated desire to move away from the traditional linear model approach to waste, to more of a circular economy approach where waste avoidance, reuse and recycling are central.

The Queensland government has also taken a strong stance on single use plastic and introduced the ban on single-use lightweight plastic bags, as well as introducing the Container Refund Scheme and Waste Levy. Technological changes have also assisted in identifying new ways of managing waste.

Of particular significance for me has been the rise in interest in our community for responsible and sustainable waste management approaches and practices in Livingstone.

Mayor Andy Ireland

To keep pace with the changing policy and legislative environment as well as community expectations, Livingstone Shire Council has developed this strategy, which provides a clear strategic direction and action plan for Council out to 2030.

With a focus on changing behaviours in our community to enable resource recovery and excellence in waste management, the strategy outlines key themes and Council's waste management priorities and associated actions to achieve this.

Livingstone Shire Council strives to create a sustainable future for our community and looks forward to moving into a new dimension of waste management.

INTRODUCTION

Waste production and management is a complex environmental, economic, social, cultural and governance challenge that affects us all. Waste management is a rapidly changing space targeting a circular economy rather than a linear one.

A circular economy is one where resources are retained in the productive cycle for as long as possible, minimising our consumption and maximising the benefits of those resources in our local economy.

A New Dimension: A Strategy for the Management of Waste in Livingstone Shire to 2030 is Livingstone Shire Council's proposed response to the challenge of moving from a throwaway society to a more sustainable future.

The document importantly outlines the strategies we will employ to promote and support the transition of our community towards a circular economy and to position the Livingstone community on a path towards a zero waste community in the future.

The Strategy outlines the key policy drivers in waste, particularly from higher levels of government. It outlines our current situation in terms of waste collection and disposal services and that the necessary changes are a shared responsibility between Council and community if we are to make this step into a new dimension of waste reduction and management.

The major challenges and opportunities are identified before discussing central themes, priorities and actions we will undertake over the next 10 years.

The final part of the Strategy establishes how we will monitor our progress and how we will report on this. This reporting will be used to review and revise the strategy as necessary.



KEY DRIVERS

Expectations from the Livingstone community as well as several national and state legislative and policy requirements are the key drivers that guide the direction of this plan.

Community Expectations

National Waste Policy

Queensland Waste Management and Resource Recovery Strategy

Waste Reduction & Recycling Act 2011

Queensland Waste Levy

Interaction with Livingstone Community Plan – Towards 2050



Community Expectations

Recent events held by Council like the War on Waste workshops, the Sustainable Livingstone Expo and other waste related events, as well as contributions from the community to governance documents such as the Community Plan Towards 2050, the Environmental Sustainability policy and climate change frameworks have not only highlighted the interest in waste management within the community but also the countless opportunities that are in this space.

There is a rising expectation that Council, other key players and also the community play a role in creating a more sustainable community and one which keeps pace with the changes that are currently occurring in the waste space by overcoming some of the obstacles and taking advantage of the many benefits that can be had.



National Waste Policy

The Australian Government's National Waste Policy, revised in 2018 is aimed at providing a common national approach to waste management, applying the principles of a circular economy and giving effect to Australia's international obligations e.g. UN Sustainable Development Goal 12 on responsible consumption and production.



Queensland Waste Management and Resource Recovery Strategy

The Queensland Government's Waste Management and Resource Recovery Strategy (Queensland Waste Strategy) was adopted in July 2019 to provide a coordinated framework to deliver on the principles of the circular economy. It outlines a vision of a zero-waste society, which it further defines by way of a series of progressive targets for waste reduction and resource recovery to 2050.

Aligned around three (3) strategic priorities, it promotes sustainable waste management practices for business, industry, local governments and households and sets the outline of a progressive policy and supporting regulatory framework. The introduction of a waste disposal levy in 2019 provided the funding framework to implement the Queensland Waste Strategy whilst also sending a pricing signal to waste generators and acting as a disincentive for inter-state dumping practices.



Waste Reduction & Recycling Act 2011

The Waste Reduction & Recycling Act 2011 provides the waste management legislative framework in Queensland. Local government entities are required to adopt a Waste Reduction and Recycling Plan, which must set clear guidelines for waste management within the local government area in order to best achieve the objectives of the Act. The Act further requires that the Waste Reduction & Recycling Plan is reviewed as a minimum every three years. This strategy document is the Waste Reduction and Recycling Plan for Livingstone Shire Council



Queensland Waste Levy

The Waste Levy commenced on 1 July 2019. The levy zone includes 39 out of 77 local government areas, including Livingstone Shire Council. Waste disposed of in the levy zone, or waste that originates in the levy zone or interstate and is disposed of in the non-levy zone will be liable for the levy.

The waste levy aims to:

- Reduce the amount of waste going to landfill;
- Encourage waste avoidance;
- Provide a source of funding to enable better resource recovery practices;
- Provide certainty and security of feedstocks for advanced technology; and
- Facilitate industry investment in resource recovery infrastructure.

Prior to the 2020 election the Queensland Government promised that the waste levy would have no impact on households, albeit there is no certainty as to how long this commitment might last.



Interaction with Livingstone Community Plan – Towards 2050

The Livingstone Community Plan – Towards 2050 is a 30-year community-planning project guided by the Livingstone community, for the community.

Livingstone Shire Council has led a whole of community planning process to develop a 30-year vision with clear community priorities for the region. The process will shape and define the future priority projects and strategies which Council implements and / or influences. The process has involved long-term thinking and collaboration with the community.

The community planning process identifies where the community is now, as well as where it wants to be in the future. It provides a clear set of strategies with a view to achieving the community's priorities and aspirations for the future. It is a form of direct democracy and allows stakeholders to participate and work together towards a common goal.

Specifically the Waste Strategy will deliver on the following areas of the Community Plan:

Theme 3: Natural Livingstone

Goal 3.1 - Enhanced reuse and recycling of resources.

Strategy 3.1.1 - Investigate options for locally-based, accessible re-use and recycling systems for waste, water and energy.

Strategy 3.1.2 - Support transitions to alternative forms of energy.

Strategy 3.1.3 - Review options to incentivise businesses and households to participate and invest in re-use, recycling and energy and water saving practices.

Goal 3.2 - Protection of coastlines and waterways

Strategy 3.2.3 - Pursue excellence in environmental and industry practices to protect and enhance environmental health.





Theme 5: Future Livingstone

Goal 5.3 - Community capacity & resilience in respect of future risk.

Strategy 5.3.2 - Support the community to build its capacity and adapt to changing social, economic and climatic conditions, including ensure resilience of infrastructure to respond to changing climate and disasters.

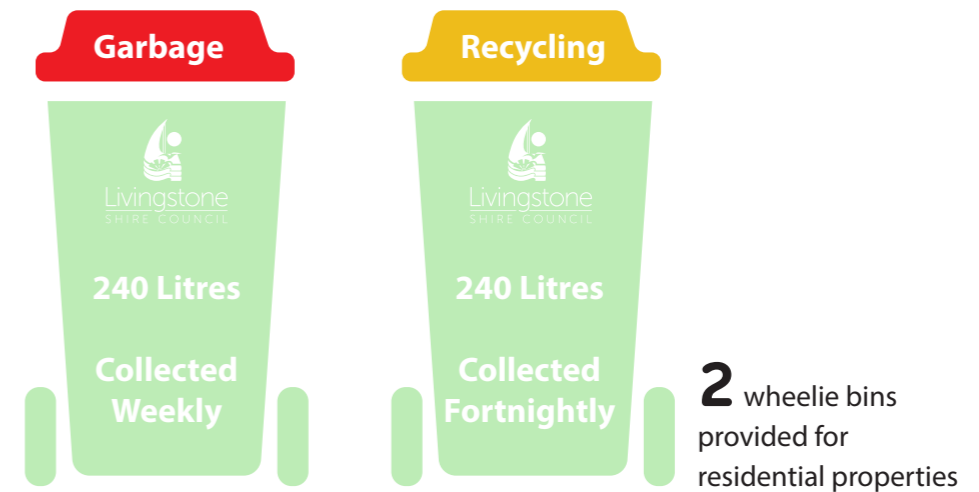
CURRENT SITUATION

Livingstone Shire Council currently manages a complex waste management system that includes:

-  Kerbside waste and recycling services
-  Public place waste collection
-  Sorting and recovery
-  Landfill and transfer stations



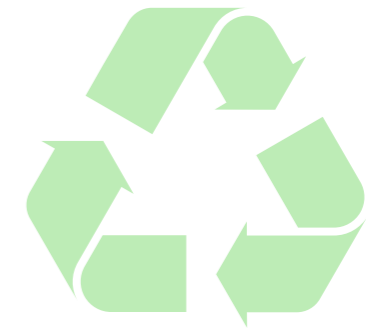
Waste Collection Services KERBSIDE COLLECTION SERVICES



850,000+
kerbside services completed by our contractor in the 2019-20 financial year



8,083 tonnes of waste collected in 2019-20 financial year



1,704 tonnes of recyclables collected in 2019-20 financial year

PUBLIC PLACE BIN COLLECTIONS



A variety of bin types collected from reserves, towns centres and shopping precincts.

Daily, weekly or fortnightly collections, depending on demand and where the bin is located.

Waste and Resource Recovery Infrastructure

We manage a range of waste and resource recovery facilities to support our community and local businesses.

YEPPOON LANDFILL

- A council-owned site
- Services provided under contract
- Managed in accordance with Environmental Authority (EA) requirements
- Site users typically pay a disposal charge that includes a landfill levy on municipal, commercial and industrial/construction and demolition waste
- Landfill levy rates are set and collected by Council on behalf of the State Government

TRANSFER STATIONS

Emu Park, Cawarral, Byfield, The Caves and Marlborough.

- Serves as temporary disposal points for excess domestic waste, recycling, electronic equipment and white goods, which are then transferred in bulk to the Yeppoon Landfill
- Provides additional recycling options for recyclables and items that are not suitable for residential kerbside bins

UNMANNED BIN STATIONS

Farnborough (Recycling), Nerimbera (Recycling), Ogmore (General Waste) and Stange Bay (General Waste).

- Serves as temporary disposal points for either general waste or recycling
- Very limited bin capacity



2019-20 SNAPSHOT



3,310 tonnes of domestic general waste disposed at Yeppoon Landfill from transfer stations



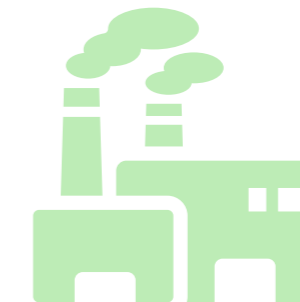
1,177 tonnes of steel recovered



14.8 tonnes of e-waste recovered



1,015 tonnes of construction and demolition waste sent to landfill



5,060 tonnes of commercial and industrial waste sent to landfill



700 public place bin services per week



5,975 tonnes of green waste recovered and mulched from all waste facilities



Council Responsibilities

While much of what shapes the Livingstone Shire waste management system is determined by global and national forces, there are still many aspects of the system we can influence and control (see Table 1).

For example, we can:

- control the products used, waste generated and waste separated in our own buildings and operations
- establish policies and practices that avoid waste and increase resource recovery
- provide services and infrastructure that support the community to collect, sort and recover waste
- educate the community about reducing contamination, improving resource recovery and avoid waste
- use partnership and advocacy to influence the Livingstone Shire waste management system

Whole of Community Responsibilities

Everyone has a role to play in supporting a circular economy – whether it is by purchasing more sustainable products or correctly separating waste from recyclables.

Some examples of how we can have a positive impact include:

- avoiding waste, by making sustainable consumer choices
- separating resources from the waste produced in homes, public places and workplaces
- reducing contamination of kerbside recycling and garden organic bins
- taking action to increase resource recovery and improve understanding about waste issues
- reduce litter in built and natural environment, conduct clean-ups and source reduction activities

Table 1: Council's areas of control and influence

ADVOCATE	<ul style="list-style-type: none"> • Government legislation and policies • Public and private investment on waste technologies • Industry capabilities and market changes • For our community at state and federal levels
INFLUENCE	<ul style="list-style-type: none"> • Infrastructure and services • Community's waste consumption and resource recovery practices • Industry, research and development and commercial sectors
CONTROL	<ul style="list-style-type: none"> • Livingstone's waste services and infrastructure • Waste and resource recovery plans and policies for our buildings and operations • Community education about waste and resource recovery • Procurement decisions to move markets towards products that adhere to circular economy principles

WASTE - A SHARED RESPONSIBILITY

Council invests a lot of time and resources into managing waste and resource recovery, however we are only one player in a complex system. It is up to everyone in the Livingstone community to play a role in resource recovery and waste management.

CHALLENGES AND OPPORTUNITIES

The key challenges and opportunities within Livingstone shire for waste and resource recovery management and increasing landfill diversion are highlighted below.

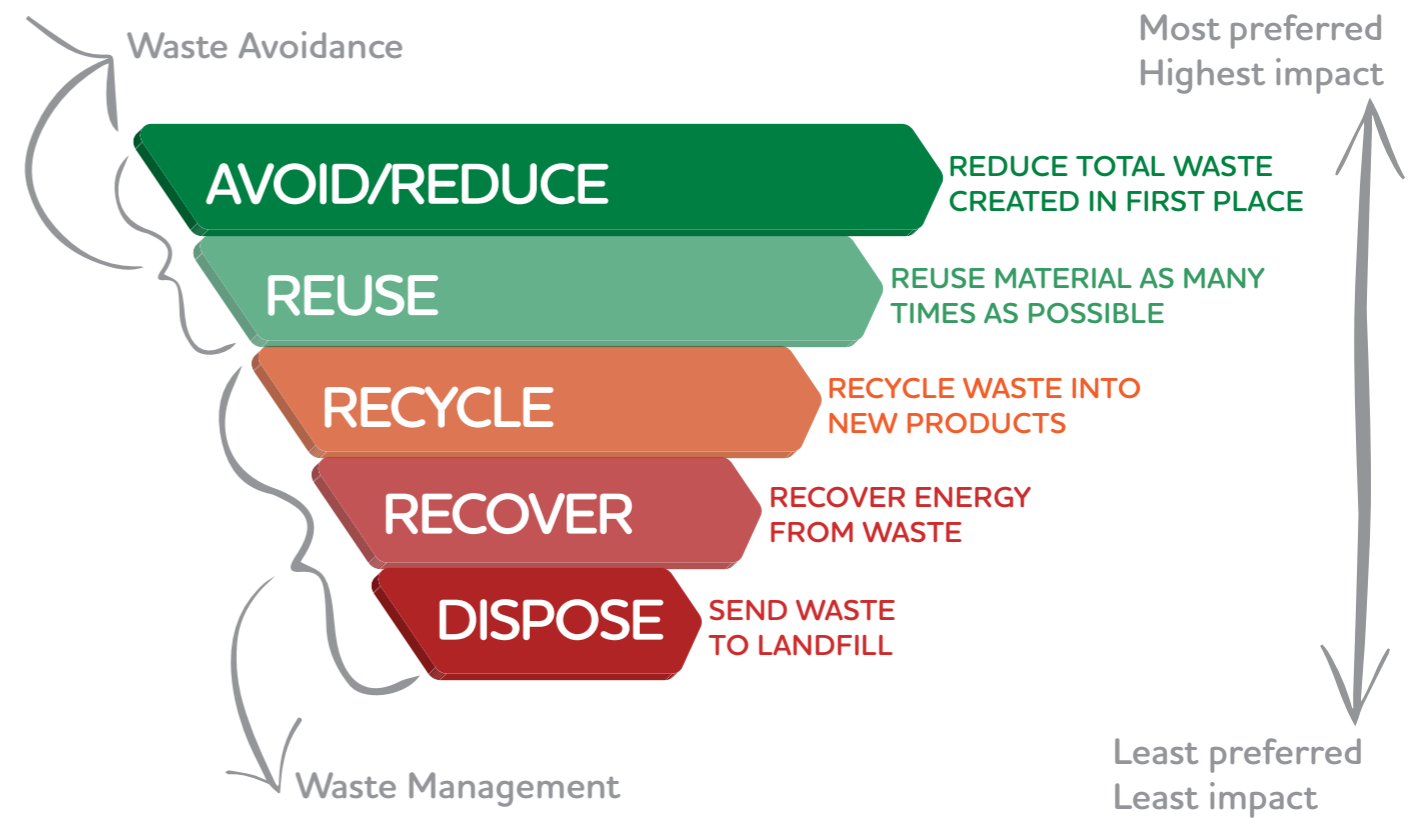
	Waste Services	Organics Processing	Data Management	Landfill Gas	Waste Contamination	Education and Engagement
Challenges	The current two bin kerbside collection service offered by Council does not allow for recovery of garden organics and/or food organics (FOGO) which are a significant greenhouse gas producer at our Landfills. An additional bin would add cost to ratepayers and increase truck movements. To be economically viable, bin services cannot be hit and miss but need to cover an entire street and zone.	The implementation of separated organics collection at the kerbside would require detailed planning and implementation, including development of a business case, and an engagement and education program for users of the service. Green waste received at the depot will increase and beneficial uses will need to be developed.	Inconsistencies in the current waste data set may hinder the ability to benchmark Livingstone's performance across the region and develop achievable resource recovery and waste management targets.	Landfill gas content in the Yeppoon landfill has been estimated at approximately 13,000 tonnes of CO2-e or around 65% of Council's current carbon footprint in a recent carbon audit undertaken for Council (Pacific Environment 2017).	Contamination in the recyclable stream reduces commodity value and creates operating inefficiencies. High contamination is generally the result of low community awareness and understanding of the commingled recycling process and of low levels of source separation across commercial waste generators. Outdated processing technologies are also not necessarily designed to efficiently deal with modern recyclable streams.	Council does not have an education officer to lead waste management education and engagement programs. Investment in this resource is likely to deliver significant cost benefits if behavioural change can be embedded.
Opportunities	It is estimated that 20-30% of waste in kerbside red lid bins is green waste, and a further 20-30% is food waste. To increase resource recovery, recycling (a third organics bin) can be used to promote the separation of organics. There could be potential to work with local industry and business to improve recycling rates.	Infrastructure provides opportunities to target the recovery of food organics and garden organics (FOGO). Facilities may be suitable for the region with the potential to co-locate at the Yeppoon Landfill or the opportunity for local business to explore organics infrastructure. There are infrastructure options that have the potential to produce energy and recycle organics if scale issues can be addressed economically	The introduction of standard data collection systems would allow for clear and consistent data to be reported and monitored to highlight trends and track targets.	To capture landfill gas either for electricity generation or for flaring which still reduces it's greenhouse gas potential and Council's overall carbon footprint.	Targeted community education and awareness campaigns can drive down contamination rates. Targeted business initiatives to encourage and enforce more user responsibility and source separation. Integrated design of the collection infrastructure and processing technologies can minimise the impact of contamination and improve recovery rates.	The development of an engagement and education program could assist with improving resource recovery and decreasing contamination rates in household kerbside recycling bins, as well as litter and illegal dumping along with behavioural change in the community.

WASTE HIERARCHY

The waste and resource management hierarchy is a framework that guides the order of preference for managing waste.

The hierarchy shapes this Strategy's priorities and provides the basis for the development of the strategic actions. The hierarchy posits that waste should be avoided as a first priority, after which options for reuse and recycling should be explored.

The options of fuel production, energy production or disposal should be reserved for residual waste that is unsuitable for higher order options. Disposal of waste is the least preferred option in the Waste hierarchy and should be considered as almost a 'last resort'.





THEMES, PRIORITIES AND ACTIONS



The themes, priorities and actions that are contained in this strategy have been informed by the waste hierarchy, as discussed above.

Council will invest in changing behaviours in the community through reducing the generation of waste in Livingstone shire and improving resource recovery to extract value from materials in the waste stream, before considering landfill disposal. Council is committed to managing waste at the highest practical level of the hierarchy in order to achieve the best outcome for both the environment and future generations.

The main themes in this strategy are: behavioural change, resource recovery and excellence in waste management. Details of each theme, the priorities within these themes and actions to achieve these priorities and themes are contained below:

Theme 1 BEHAVIOURAL CHANGE

Theme 2 RESOURCE RECOVERY

Theme 3 EXCELLENCE IN WASTE MANAGEMENT

Theme 1

Behavioural Change

Council will partner with our community and empower them to embrace the principles of a circular economy. We all need to change the way we look at consumption and waste. In a circular economy everything is a potential

resource which can be returned into the economic cycle. Council will be an advocate for change, engaging with our community, delivering education and being a catalyst for a whole of community response to change.



PRIORITIES AND ACTIONS

1.1 Education

Actions

Employ a dedicated Waste/Sustainability Education Officer to promote the circular economy:

- Deliver an annual Waste Education program targeting primary schools
- Develop specific education campaigns on topics such as Sustainable Livingstone, Illegal dumping and littering, the 3 R's - Reduce, Reuse and Recycle, Plastics, Disposal of invasive species etc

Develop a dedicated Resource Recovery and Waste Education Centre

1.2 Empowering the Community

Actions

Identify community champions and provide supporting resources

Run events throughout the year such as the Sustainable Livingstone Expo, National Recycling Week and various workshops and forums on specific waste and sustainability topics

Employ behavioural change education experts at events

Develop online training sessions for the community

Maintain and update the Livingstone Waste Wise App

Engage with local businesses to promote waste reduction to visitors to Livingstone shire

Develop incentive/subsidy programs including: Reusable Nappies and Sanitary products, Worm Farms, Composting Bins, Mulchers

1.3 Monitoring and Evaluation to gauge program effectiveness

Actions

Establish appropriate baseline and ongoing monitoring programs to track success of behavioural change programs and inform the necessary adjustments to education programs

Theme 2

Resource Recovery

Council will maximise resource recovery opportunities across our community. This will require infrastructure investment for sorting, separation and processing purposes. It will require partnerships with a wide range of stakeholders including local Councils within this region, waste generators, private operators, technical experts, regulators and financial partners.

It will require broad community support and buy-in, commonly referred to as a social licence to operate. In many instances, Council's role will be that of service provider and owner of the infrastructure. In other instances, Council will be partner or facilitator providing the support to allow private operators to deliver appropriate service.



PRIORITIES AND ACTIONS

2.1 Reuse of waste products

Actions

Conduct regular resource recovery audits

Continue the reuse of products such as cardboard, glass, wood, waste oil

Continue operation of Recycle Market and promote and market the business

2.2 Creating separation

Actions

Provide accessible separation facilities at landfill and transfer stations

Engage commercial operators to remove bulk products from waste stream (fridges, furniture etc.)

2.3 Tailor waste disposal choices

Actions

Cost out the annual or biannual pick-up of larger, bulkier items (eg. whitegoods, appliances, shelves etc.) and consult with community

Engage ratepayers on the cost of waste vouchers and future funding of this program

Develop a new policy on the expansion of kerbside bin collection services currently not serviced

2.4 Avoidance of contaminated waste

Actions

Run programs to ensure separation of waste from recoverables/recyclables, such as in recycling bins etc

2.5 Food Organics Garden Organics (FOGO)

Actions

Review opportunities for FOGO kerbside collection

Commence community engagement around FOGO

Promote food waste management programs such as "Love Food Hate Waste" to the community

Partner with local business to install organics infrastructure for the recovery of FOGO

Theme 3

Excellence in Waste Management

Council aims to be at the forefront of the changing world in waste, leading by example, being innovative, improving our sustainability and changing our focus. Achieving the best outcomes for Livingstone Shire requires Council to effectively manage risk and maximise opportunities wherever possible. This strategy is underlined by the principles

of sustainability which inform our corporate governance. Council will work within the Livingstone community and at all levels of government to address waste matters in the Livingstone Shire. Most importantly Council will lead by example and continually advocate for improved practice and actions in waste management.



PRIORITIES AND ACTIONS

3.1 Sustainable Governance and Procurement

Actions

Ensure sustainability principles and practices are embedded in all Council procurement processes

Ensure product control by mandating waste management plans are included in all Council tender documents, project plans and development applications

Introduce standard data collection systems to enable effective benchmarking and target setting

Include best practice waste management principles and practices in all Council work procedures

Develop a Master Plan for the Yeppoon Landfill site

3.2 Advocacy and Leadership

Actions

Support and advocate for a regional approach to waste management, including a regional landfill facility, through the Central Queensland Regional Organisation of Councils (CQROC)

Advocate for legislative and regulatory improvements to reduce and manage waste and litter

Advocate to Australian and Queensland governments for a focus on waste and resource recovery, separation of recyclables and litter avoidance through Council's membership of the Waste Management and Resource Recovery Association Australia (WMRR) and Local Authority Waste Management Advisory Committee North Queensland (LAWMAC)

Advocate for local reprocessing of waste and recycling materials for beneficial uses within Central Queensland

Advocate to relevant industry and businesses on packaging stewardship responsibility

3.4 Innovation

Actions

Develop a market process to monitor and capture or flare landfill gas

Liaise with local industries and business regarding the development of a private compost facility



How We Will Implement The Plan

Once the Strategy is endorsed, we will develop a rolling implementation plan to be delivered every two (2) years.

The implementation plan will identify:

- the strategic actions we will be working on
 - specific timelines for each action
 - resources required
 - our progress to date
- trends in the waste sector
 - community expectations
 - our annual budget
 - changes in our priorities and programs
 - changes in federal and state government policies and programs

How We Will Fund The Implementation

The funding needed to implement the strategic actions for each two-year period will be considered in our annual planning and budgeting cycles. We will also seek external funding opportunities to further progress our vision, goals and strategic actions.

How We Will Report

Council will report through internal reporting frameworks such as Quarterly Reporting through the Operational Plan. Reporting will be informed through: surveys, records within Council's Waste Collection System, Livingstone Shire Council data collection, monitoring and evaluation of local initiatives.

HOW WE WILL
MEASURE OUR SUCCESS



REFERENCES

Livingstone Shire Council, 2018?, Livingstone Community Plan: Towards 2050

Livingstone Shire Council, 2020, Low Carbon Livingstone 2030: A Strategy to Reduce Livingstone Shire Council's Carbon Footprint by 30% by 2030, Yeppoon.

Pacific Environment, 2018, Livingstone Shire Council Carbon Audit Report

The Waste Reduction & Recycling Act 2011

Commonwealth of Australia, 2018, National Waste Policy: less waste more resources

Queensland Government, 2019, Waste Management and Resource Recovery Strategy (Queensland Waste Strategy)





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