



# Sunshine Coast Waste Strategy 2015 - 2025

Waste Reduction and Recycling Plan





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## Executive summary

It's no secret that communities across Australia are facing major challenges with the collection and disposal of solid waste and the Sunshine Coast is no exception. Existing landfills are quickly running out of space and the time for change is upon us. For this and many more reasons, the *Sunshine Coast Waste Strategy 2015-2025* has been developed. This strategy aims to create a more sustainable approach to waste management and position the Coast for the future.

The *Sunshine Coast Waste Strategy 2015-2025* has been developed to shape Council's future waste management infrastructure needs and develop strong resource recovery markets. This strategy aims to also ensure that this essential community service remains both cost effective and customer focused whilst protecting the health of the public and the natural environment.

How do the words 'Australia's most sustainable region' sound?

Impressive, impactful, and entirely attainable with the new Sunshine Coast Waste Management Strategy.

This vision however, is not an overnight quick fix but it is achievable by establishing clear goals and achieving targets over a reasonable time frame. These clear goals or 'major actions' for the strategy include the following:

- Initial research and development phase including;
  - Review of current and emerging alternate waste technology / treatment systems; and
  - Delivery of innovative, financially viable 21<sup>st</sup> century waste infrastructure for future generations that will support projected population growth and deliver landfill diversion targets
- Construction of a new Resource Recovery Centre at Nambour;
- Expansion of waste and recycling collection services to cover > 95% of the regions premises;
- Adopting an advocacy role for Producer Responsibility and introduction of a Container Deposit Scheme in Queensland;
- Continue to work with, educate and engage our community to help change personal behaviours;
- Continue to trial and introduce initiatives to increase recycling rates, reduce organics disposal to landfill and increase landfill diversion.

Performance indicators and action plans identified in the strategy are based on the Waste and Resource Management Hierarchy and have been developed to align with the Commonwealth National Waste Policy<sup>1</sup> and State<sup>2</sup> waste reduction targets.

Waste Stream	Qld State Strategy 2014-2024 Targets
Municipal Solid Waste (MSW)	55%
Commercial and Industrial Waste (C&I)	55%
Construction and Demolition Waste (C&D)	80%
Waste Generation per person annually	1.8 tonnes

Key priorities, strategies and actions in the *Sunshine Coast Corporate Plan 2014-2019* have also been incorporated into the strategy.

In line with the *Queensland Waste Reduction and Recycling Act 2011*, the strategy will be reviewed every three years and action plans updated on an annual basis taking into consideration relevant market conditions, revised State targets or Federal Government initiatives (if applicable).

1 National Waste Policy: Less Waste, More Resources 2009

2 Queensland Waste Reduction and Recycling Act 2011

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## Introduction

### 1.1 About the Sunshine Coast

The Sunshine Coast Council region is comprised of approximately 2,291 square kilometres. This includes a wide variety of beaches, coastline, waterways, rural land, national parks, state forests, bushland, coastal urban centres and inland towns. The rural area is primarily used for farming; cattle grazing and crop growing alike.

More than 27,765 registered businesses operate across the Sunshine Coast (Economy, ID 2013) including well-established and recognisable retail and construction sectors as well as a tourism industry that supports numerous accommodation options and entertainment venues.

### 1.2 Demographics

The Sunshine Coast is located in South East Queensland, approximately 100km north of Brisbane. The local government area (LGA) is bordered by the shire of Noosa to the north, Gympie and Somerset Regions to the west and Moreton Bay Regional Council to the south.

As of 30 June 2014 the population stands at an estimated 285,000 however this number fluctuates due to the Coast's popularity as a tourist destination. This annual transitory population increase is estimated at an additional 10% that is not accounted for in the population data.

The region's population growth in 2011 was 3.9%<sup>1</sup> and it is forecast that the LGA will see a population increase between 2016-2026 of 108,893 or 36% equating to a population growth of 3.6% per annum.

Appendix A tables the population projections for the region based on localities and Map 1 illustrates these as a percentage of total growth.

In 2011, the census indicated that there were 84,272 detached houses in the LGA, 28,914 medium and high-density dwellings, with 91.7% of these dwellings housing up to four residents and 8.3% housing five or more residents.

By gaining a thorough understanding of the region's growth rates and housing demographics both the Council and contractor are able to plan cost effective provision of services.

*The Sunshine Coast Planning Scheme 2014: Local Government Infrastructure Plan* details existing and projected residential, industrial and commercial development for the region. Of note, residential development at the Caloundra South, Palmview, Nambour, and Maroochydore localities are predicted to see the majority of growth

<sup>1</sup> Regional Development Australia – Sunshine Coast: State of the Region 2012-2031

## Sunshine Coast Population Projections 2016 - 2026





### 1.3 Purpose

The Waste Strategy 2015-2025 has been developed to align with Sunshine Coast Council's vision to be Australia's most sustainable region.

#### VIBRANT. GREEN. DIVERSE.

The strategy sets a direction for waste management across the region, over the next decade and beyond. It focuses on the provision of sustainable and well-planned infrastructure that considers the needs of our ever growing community and the all-important environment, both now and in the future.

### 1.4 Approach

The format of the strategy meets the State requirements for a waste reduction and recycling plan. The development of the strategy can be summarised as:

- Review of *Waste Minimisation Strategy 2009-2014*
- Review of policy, legislation and corporate plans
- Review of projected population growth, services, infrastructure and related technology
- Development of objectives, targets and actions to reduce waste to landfill
- Consultation with Council officers and Councillors
- Initial review of objectives, targets and actions
- Community and industry consultation via release of draft plan for comment
- Final review of objectives, targets and actions.
- Engagement with State and Federal government experts on current and future initiatives

### 1.5 Previous Strategy

Council's *Waste Minimisation Strategy 2009-2014* was used as a guiding document during development of this new strategy.

Since adoption of the previous strategy Sunshine Coast Council has invested over \$30 million developing new resource recovery facilities, establishing innovative waste management contracts, increasing landfill capacity and investigating a range of alternative waste management initiatives.

Several factors, including removal of the Queensland landfill levy and diminishing timber reuse markets adversely influenced Council's efforts to achieve the landfill diversion targets within timelines outlined in the previous strategy.

Additionally, technical research undertaken over the past four years also demonstrated that a number of proposed waste minimisation projects outlined in the previous strategy were not conducive to the market conditions of that period. This research and understanding will continue to be used to enable Council to respond to changes in state or federal government waste regulations.

It is understood that circumstances change and markets will evolve during the term of this strategy. At such point, Council will reassess the viability of these projects whilst continuing to improve upon the successes of the previous strategy. These successes include:

- Construction of a new Resource Recovery Centre and Recycle market at Buderim in 2012/2013
- Introduction of mattress recycling in 2010 and e-waste recycling in 2013
- Introduction of regional optional kerbside garden waste services in 2009/2010
- Installation of landfill gas extraction and flaring at Caloundra and Nambour landfills
- Expansion of bulk recycling collection services to business and industry across the region
- Mobilisation of Council's first 'regional' waste collection contract in July 2014.
- A full market assessment of alternative waste treatment and waste to energy technologies to provide Council with future guidance.

A business case assessment of available alternate treatment options was considered by Council at a number of workshops and meetings between August 2012 and September 2013. At the Ordinary Meeting of 19 September 2013 it was determined that council would

continue a 2-bin collection system with an optional garden waste service and review the suitability of this approach based on the revised Queensland Waste Strategy and the re-introduction of any waste levy.



Images (Top to bottom, left to right): Image 1 Mattress disassembly for recycling, Image 2 Buderim tip shop (outdoor grounds area), Image 3 Buderim resource recovery centre front end sorting area, Image 4 Garden waste collection service

## Strategic Framework

### 2.1 Key legislation considerations

In order to develop effective waste management initiatives for this strategy and identify incentives for the reduction and recycling of waste materials, a number of Queensland and Commonwealth Statutory environmental requirements, policies and guidelines had to be considered.

#### Commonwealth legislation:

- *National Greenhouse and Energy Reporting Act (NGER Act) 2007*
- *Clean Energy (Consequential Amendments) Act 2011*
- *Clean Energy Legislation Amendment Act 2012*
- *Product Stewardship Act 2011*

#### Queensland legislation:

- *Environmental Protection Act 1994*
- *Environmental Protection Regulation 2008*
- *Sustainable Planning Act 2009*
- *Local Government Act 2009*
- *Waste Reduction and Recycling Act 2011*
- *Waste Reduction and Recycling Regulation 2011*
- *Environmental Protection (Green tape Reduction) and Other Legislation Amendment Act 2012.*

### 2.2 Key legislative driver

A vital component of the Queensland Waste Reduction and Recycling Act 2011 (WRRRA 2011) is a requirement for each local government to prepare a waste strategy. This strategy must set clear guidelines for waste management within local government areas in order to best achieve the Act's objectives.

### 2.3 Key policy drivers

The direction for Australia's waste management and resource recovery (from 2010-2020) has been set by the national waste policy, *Less Waste, More Resources 2009*. This policy outlines six critical objectives; from these, the following priority strategies have been developed:

- **RESPONSIBILITY.** Take responsibility for reducing the impacts of products and materials from production to the end-of-life
- **MARKET IMPROVEMENT.** Improve the market to deliver efficient and effective markets for waste and recovered resources, using local technology and innovation
- **SUSTAINABILITY.** Pursue sustainability and therefore achieve environmental, social and economic benefits from producing less waste and using waste better
- **HAZARD REDUCTION.** Reduce hazard and risk by decreasing waste's hazardous content and use consistent and safe waste management methods
- **SOLUTIONS.** Tailor solutions to increase regional capacity and allow communities to manage waste and recover and reuse resources
- **EVIDENCE.** Provide evidence to give decision makers access to meaningful and accurate waste and resource recovery data. This data grants measurable results and shapes community behaviours.

In conjunction with the waste sector, general businesses, local government and community stakeholders, the Queensland Government developed the *Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024)*. This strategy outlines the new vision for waste management in Queensland and is underpinned by five guiding principles:

1. **PROTECT** both human health and the environment to secure our future prosperity
2. **SHARE** responsibility in order to avoid unnecessary consumption and improve resource management
3. **RECOGNISE** the economic, environmental and social costs of waste generation and disposal
4. **UNDERSTAND** regional differences and opportunities
5. **PROVIDE** full lifecycle management of resources

The Queensland Waste Avoidance and Recycling and Resource Productivity Strategy 2014-2024 targets are outlined in Table 1 below.

**Table 1: Queensland Waste Avoidance and Resource Productivity Strategy 2014-2024 Targets**

Waste Stream	Measure	2024 Target
Municipal Solid Waste (MSW)	Improved recycling rate	55%
Commercial and Industrial Waste (C&I)	Improved recycling rate	55%
Construction and Demolition Waste (C&D)	Improved recycling rate	80%
Reduce generation of waste	Reduction in per capita generation	Reduce by 5% to 1.8 tonnes per person per year

The State's Waste Reduction and Recycling Strategy 2010-2020 contained similar targets and included a \$35.00 per tonne landfill levy on C&I and C&D waste as a price signal to change disposal behaviour. The levy was rescinded on 1 July 2012 through an amendment to the *Waste Reduction and Recycling Regulation 2011*. The industry lead *Waste Avoidance and Resource Productivity Strategy 2014-2024* has been drafted to replace the previous strategy.

Consistent with State and Commonwealth practices, the *Sunshine Coast Waste Strategy 2015-2025* is also informed by the waste and resource management hierarchy (Figure 1).

**Figure 1: The Waste and Resource Management Hierarchy**



The Waste Hierarchy is the preferred order in which waste and resource management options should be considered. Avoidance or reduction is the most preferable, followed by reuse, then recycling with disposal as the least preferable option for managing waste.



## Waste Management Activities

### 3.1 Waste Services

Sunshine Coast Council's waste management activities are administered by its Waste and Resource Management (WRM) Branch.

The operations of the WRM Branch are considered a significant business activity and therefore are subject to the National Competition Policy (NCP) provisions of the Local Government Act 2009 and the Local Government (Beneficial Enterprises and Business Activities) Regulation 2010.

In accordance with its obligations under the NCP, WRM applies full cost pricing to its suite of services based on a, 'polluter pays' principle.

WRM manages waste collection services through a single region-wide collection contract and the operation of eight waste management sites with a range of infrastructure at each respective facility.

A suite of contracts, awarded through a public tender process, provide all facility, operation and collection services. This ensures a cost effective and beneficial outcome is delivered to residents and customers.

This strategy sets actions to provide efficient and reliable collection services resulting in less than 1 in 2,000 missed services and ensure annual per capita generation of waste remains less than 1.8 tonnes per person.



Image 5. Collection vehicles

### 3.2 Solid waste collection

WRM is responsible for the provision of waste, recycling and garden waste collection services to both domestic and commercial premises via a seven (+one) year contract that commenced in July 2014. The collection and service type arrangements are outlined in Table 2.

This strategy includes an action that will expand the waste collection service area to encompass more than 95% of the region's premises.

Table 2: Summary of solid waste collection arrangement

Description	Services
Domestic Waste	140L and 240L (weekly)
Domestic Recycling	240L and 360L (fortnightly)
Domestic Garden (optional)	240L (fortnightly)
Multi-Unit Developments Waste	140L and 240L (minimum weekly) 1, 1.5, 2, 3, 4.5 m <sup>3</sup> bulk bins (minimum weekly) 660 and 1100 litre low noise bins (minimum weekly)
Multi-Unit Developments Recycling	240L and 360L (minimum fortnightly) 660L and 1100L low noise bins (minimum fortnightly)
Multi-Unit Developments Garden Waste (optional)	240L (fortnightly) 660L and 1100L low noise bins (fortnightly)
Commercial Waste	140L and 240L (minimum weekly) 1, 1.5, 2, 3, 4.5 m <sup>3</sup> bulk bins (minimum weekly) 660L and 1100L low noise bins (minimum weekly) 17, 19, 23, 55 m <sup>3</sup> compactors (minimum weekly)
Commercial Recycling	240L and 360L (minimum fortnightly) 1, 1.5, 2, 3, 4.5 m <sup>3</sup> bulk bins (minimum fortnightly) 660L and 1100L low noise bins (minimum fortnightly)
Commercial Garden Waste (optional)	240L (minimum fortnightly) 660L and 1100L low noise bins (minimum fortnightly)
Public Place Bins	60L, 140L and 240L (varied, daily to weekly)

This strategy will action an investigation of options for an automated waste collection system for the new Maroochydore City Centre.

Recyclables collected under the kerbside collection

This strategy aims to expand the optional garden waste service by 5% annually. By doing so, it will reduce waste to landfill and minimise the contamination of the general and recycling waste streams.

contract are delivered to the Nambour Materials Recovery Facility, operated under contract until 2021 with an extension option until 2022.

Kerbside garden waste collection is an optional service with a current uptake of 8.5%. Garden waste is delivered to an open-windrow treatment facility located at Caloundra landfill and the resulting mulch product is used in garden beds for soil enrichment, weed suppression and moisture retention.

### 3.3 Resource recovery centres and landfill operations

Council currently operates two putrescible landfills and eight resource recovery centres for the receipt of household waste, commercial and industrial waste, construction and demolition waste as well as recyclables.

Table 3 provides a summary of current major waste disposal and resource recovery centre contracts and their operational arrangements.

Table 3: Major disposal and resource recovery centre contracts

Contract	Site	Contract Term	Contract Commencement
Landfill Operations	Nambour	7 years + 1	July 2015.
Landfill Operations	Caloundra	7 years + 1	July 2015.
Resource Recovery Centre Operation (A)	Buderim	3 years + 1	July 2015.
Resource Recovery Centre Operation (B)	Beerwah, Witta, Mapleton, Kenilworth, Yandina	3 years + 1	July 2015.
Resource Recovery Centre Operation (C)	Caloundra	3 years + 1	July 2015.
Materials Recovery Facility (MRF) Operation	Nambour	7 years + 1	July 2014.
Garden Waste Mulching	Caloundra, Buderim, Nambour, Beerwah, Witta, Mapleton	2 years + 1	September 2013.
Concrete Crushing	Caloundra, Buderim, Nambour	3 years	July 2015.

This strategy sets an action for the construction of a new Resource Recovery Centre at the Nambour Waste Precinct site.

Table 4: Smaller contracts for recovery and recycling

Recovered Materials
Scrap Metal (including white goods)
Tyres
Oils
Cardboard
Mattresses
Batteries
Fluorescent Bulbs
Household Hazardous Waste (chemicals/paints etc.)



Images (Top to bottom, left to right): Image 6: Car and Truck Battery recovery, Image 7: Tyre recovery, Image 8: E-waste recovery, Image 9: White goods recovery



### 3.4 Waste statistics

The quantities, types and sources of waste materials disposed of throughout the region are an important factor in determining future directions in waste and resource management. In 2013-2014 the Sunshine Coast community delivered 232,284 tonnes of waste to Council's waste management facilities, of which 159,458 tonnes were landfilled.

These tonnages constitute kerbside collected and self-hauled municipal solid waste, commercial and industrial waste and construction and demolition waste.

A total diversion rate of 31% was achieved in the 2013-2014 financial year. Table 5 provides a breakdown of the waste streams received, recycled and landfilled at Council's facilities.

Table 5: 2013-2014 Sunshine Coast Council waste statistics

Waste Streams	Tonnes Incoming	Tonnes Landfilled	Tonnes Recycled	Diversion Rate	SCC STRATEGY 2015-2025 Diversion Targets
Municipal Solid Waste (MSW)					
Domestic Kerbside Waste	72,199	72,199	0	35%	55%
Domestic Kerbside Recycling	26,795	1,298	25,497		
Domestic Kerbside Garden	4,206	0	4,206		
Domestic Self-haul Waste	18,372	13,987	4,385		
Domestic Self-haul Garden	13,104	27	13,077		
Total MSW	134,676	87,511	47,165	35%	55%
Commercial & Industrial (C&I)					
Commercial Waste	36,330	36,330	0	23%	55%
Commercial Recycling	2,977	144	2,833		
Commercial Self-haul Waste	21,533	17,315	4,218		
Commercial Self-haul Garden	9,375	29	9,346		
Total C&I	70,215	53,818	16,397	23%	55%
Construction & Demolition (C&D)					
Total C&D	27,393	18,129	9,264	34%	80%

The Sunshine Coast recycling rate was 35% for MSW in 2013-2014. An annual recycling improvement of 2% will be required to meet the recycling target of 55% by 2024. The C&I waste recycling performance of 23% will entail a 3.2% annual improvement in order to make the target of 55% by 2024.

The recycling performance for C & D waste is currently 34%. The C&D recycling target of 80% by 2025 is aligned with the State target.

The strategy will introduce pricing mechanisms and other incentives to encourage source separation of recyclable C & D materials and new end-use markets for recovered / processed C&D material will be established.

This strategy targets the improvement of recycling rates for Municipal Solid Waste and Commercial Industrial Waste to 55% and lastly, Construction and Demolition Waste to 80% by 2025.

As part of Council's resource recovery centre operations, Council operates four recycle markets. The markets are stocked with products that have been diverted from landfill at the Resource Recovery Centre and identified as reusable. These products run the gamut from household furnishings, collectables, books, toys and even sporting equipment. It is difficult to quantify exact volumes of materials diverted from landfill through tip shop sales however, the estimated total diversion volume sits at around 3,000 tonnes per year and the reuse factor is highly ranked in the Waste Management Hierarchy.

The region's estimated population of approximately 285,000 (June 2014) along with a total waste generation of 232,284 tonnes equates to an annual waste generation rate of 0.82 tonnes per person and is presently improving the annual State strategy target of 1.8 tonnes per person.



Image 10: Domestic kerbside recyclables unloaded at MRF

### 3.4.1 Waste composition

Waste composition assessments are carried out by WRM on a yearly basis, alternating between waste streams. The branch audits in intervals to ensure data that is a valid and accurate reflection of the Sunshine Coast seasonal variations.

The 2014 data (refer Chart 1 and Chart 2) demonstrates that there is a large proportion of recyclable material in the municipal (17%) and commercial (18%) waste bins such as metals, plastics, paper/cardboard and glass.

The data also highlights the high proportion of organic material (garden and food waste) presented in the municipal waste bin (50%) even with the current voluntary garden waste system consisting of an 8.5% participation rate

Chart 1: Composition of the municipal solid waste stream (2014)

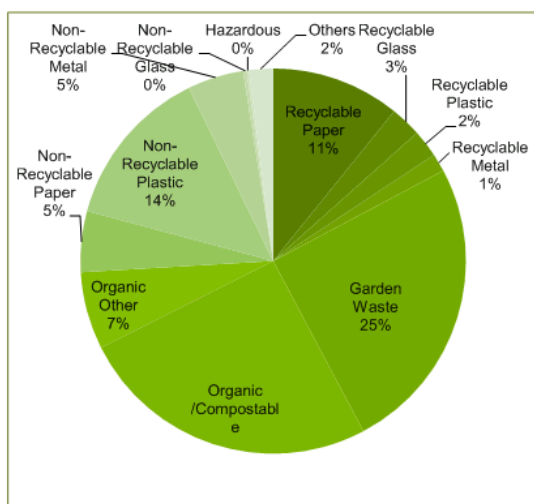
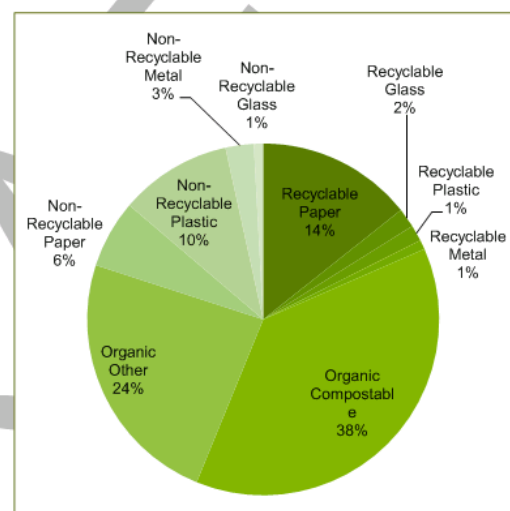


Chart 2: Composition of the commercial and industrial waste stream (2014)



### 3.4.2 Waste generated by Council activities

The waste generated by Council's activities widely varies, as highlighted in Table 6. Whenever and wherever possible Council branches undertake a range of measure to avoid, reduce, reuse and recycle waste.

Table 6: Waste types generated by Council branches in carrying out their activities

Council Branches / Activities	Waste Types				
	C&I Waste	C&D Waste	Garden Waste	Recyclables	Other
Council Offices	✓			✓	
Council Depots	✓		✓	✓	
Parks and Gardens			✓		✓
Civil Works		✓	✓		
Environmental Operations		✓			✓
Community Response			✓		✓
Pathways Maintenance		✓			
Airport	✓				

The *Waste Reduction and Recycling Act (WRRRA) 2011* stipulates that this plan includes actions to improve the reduction and recycling of waste generated by Council in carrying out its activities.

In order for Council to lead by example and move waste up the hierarchy, there is a need to establish accurate baseline data of the waste generated by Council's activities. For this reason an action in Objective 5 (Table 14) has been established to measure this and thus allow future performance to be measured against the previously established baseline data.

This strategy will determine waste generation rates for Council activities to provide baseline data for improved recycling rates.



### 3.5 Facilities / Infrastructure

Council provides a range of resource recovery centres and disposal facilities for the waste generated in the Sunshine Coast. Table 7 identifies each facility and the waste type it accepts. Information about proposed future capital works is also included.

The strategy advocates collaboration with other public utility or private sector partners to investigate future waste disposal infrastructure opportunities.



Images (Top to bottom, left to right): Image 11: Beerwah tip shop, Image 12: Caloundra resource recovery - front end, Image 13: Buderim resource recovery centre solar panels offsetting the site's power usage, Image 14: Caloundra landfill transfer station

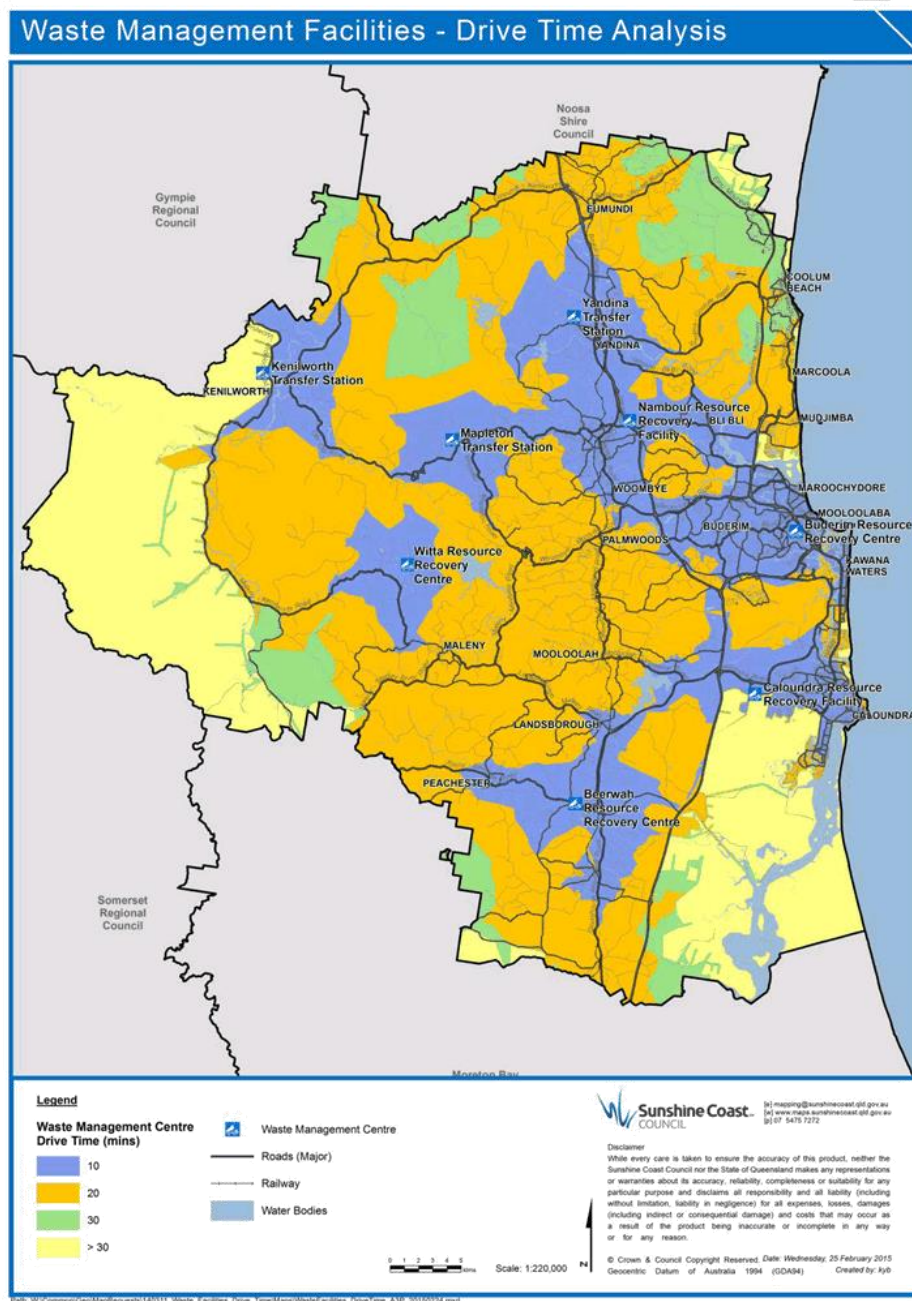
Table 7: Current and proposed infrastructure

Facility	Waste Types Accepted	Proposed Future Capital Works
Caloundra Landfill and Resource Recovery Centre	Waste transfer station and landfill Domestic and commercial waste Construction waste Contaminated soils Regulated waste Green waste Recyclables Household hazardous waste	Construction of cells 9,10,11 and 12 Sewer connection for leachate removal Construction of bio-basin for control of nutrient rich runoff
Beerwah Resource Recovery Centre	Domestic waste Green waste Recyclables Household hazardous waste	
Witta Resource Recovery Centre	Domestic waste Green waste Recyclables Household hazardous waste	
Nambour Landfill and Transfer Station	Waste transfer station and landfill Domestic and commercial waste Construction waste Contaminated soils Regulated waste Green waste Recyclables Household hazardous waste	Construction of cell 5 Construction of Resource Recovery Centre and Recycle Market Installation of dual weighbridges Construction of Transfer Station Construction of workshops Sewer connection for leachate removal Landfill expansion into adjacent property
Nambour Material Recovery Facility (MRF)	Domestic and commercial recyclables	Upgrade bulk haul baling system
Buderim Resource Recovery Centre	Domestic waste Green waste Recyclables Household hazardous waste	Upgrade of bulk waste drop off zone Construction of bio-basin for control of nutrient rich runoff
Kenilworth Transfer Station	Domestic waste Green waste Recyclables Household hazardous waste	
Mapleton Transfer Station	Domestic waste Green waste Recyclables Household hazardous waste	Upgrade of facility to increase resource recovery
Yandina Transfer Station	Domestic waste Green waste Recyclables Household hazardous waste	

Below, Map 2 illustrates locations and drive time analysis of the eight disposal facilities currently located within the region (excluding the Nambour MRF, as it is not open to the public). The map clearly indicates over 85% of the region's population resides within 20 minutes

of a waste disposal facility. This information combined with predicted population growth guides the decisions of future disposal site locations and necessary upgrades of resource recovery centres and transfer stations.

Map 2: Waste facilities drive time analysis





### 3.5.1 Landfill capacity

The space above ground level at landfill sites (known as airspace) is a key strategic driver for long-term planning of waste disposal assets. Council operates two active landfills for the disposal of putrescible and non-putrescible waste:

- Caloundra Landfill is located at Pierce Avenue, Caloundra and has an estimated remaining capacity of approximately 1.9 million cubic metres and is forecast to reach capacity in approximately 2030.
- Nambour Landfill is located at Cooney Road, Bli Bli and has an approved and remaining capacity of approximately 1 million cubic metres with an approximate forecast closure of 2024.

This strategy aims to ensure the percentage of incoming waste diverted from landfill increases from that of the previous year. By doing so, it will prolong landfill life and support the achievement of recycling rate targets.

In 2013, Sunshine Coast Council acquired the land parcel adjoining the Nambour Landfill for future landfill development. A summary of the landfill airspace capacity is provided in Table 8.

Table 8: Remaining landfill airspace capacity

Facility	Approved Airspace*	Potential Additional Airspace	Estimated Closure Year
Caloundra	1,915,000m <sup>3</sup>	Nil	2030
Nambour – Current	1,005,000m <sup>3</sup>	Nil	2024
Nambour – Future (18 Cooney Rd)	Nil	1,085,000 – 2,411,006m <sup>3</sup>	2037

\*Current at 7 July 2014

Due to the predicted population growth an essential need for future waste management infrastructure planning has been identified.

Options include:

- Expansion of current sites:
  - potential to build bulk storage / bulk haul transfer station/s
  - potential to increase the size of current landfills
  - construction of a new resource recovery centre at Nambour.
- Development of new landfill sites:
  - potential to build new regional landfill/s or share landfill/s (with private enterprises or neighbouring Councils).
- Re-shaping the way current facilities are utilised.
- Investigate options for partnerships with neighbouring local Councils or public utilities for the development of regional facilities.
- Conducting a feasibility study of alternative waste treatment (AWT) options in conjunction with potential public utility or private sector partners as appropriate.

State legislation impacts specifically related to the possible reintroduction of a 'landfill levy' will influence decision making as planning and development options progress.



Image 15: Nambour landfill cell 5.2



### 3.5.2 Landfill gas

Greenhouse gases are the gases released from decomposing organic waste in a landfill, particularly carbon dioxide and methane. Gas emissions from the various Council landfills, both closed and current, account for approximately 80% of the total greenhouse gas emissions in Council's footprint.

Landfill gas is captured in order for the methane component to be either used or converted to carbon dioxide to reduce its impact on the environment. Current gas capture rates are approximately 23%. Council's target of 40% by 2020 will be achieved through improvements to landfill gas capture systems, operational activities and expansion and finalisation of landfill capping.

Council has landfill gas capture systems in place at three locations:

- Nambour Landfill
- Caloundra Landfill
- Buderim Landfill (closed)

The quantities of gas generated will be monitored over the next few years. If sufficient volumes are proven, Council will consider the installation of a gas driven engine. This engine will power a generator to produce electricity that feeds into the local network and supply grid.

This strategy will improve site operational methods to enable a 40% methane capture rate by 2020. This development is to support Council's target of carbon neutrality by 2020 as highlighted in the *Climate and Peak Oil Strategy 2010-2020*.



Images (Top to bottom, left to right):  
Image 16: Caloundra landfill gas manifold,  
Image 17: Caloundra landfill gas flare

### 3.5.3 Landfill remediation program

Council actively manages a number of legacy landfills in the region including those highlighted in Table 9 below. Rehabilitation of legacy landfills is delivered via an ongoing Landfill Remediation Program that includes long-term prioritised operational and capital works.

Table 9: Closed landfills in the SCC region

Buderim Landfill	Syd Lingard Drive, Buderim
Coolum Landfill	Toolborough Road, Coolum
Kenilworth Landfill	Brooloo Lane, Kenilworth
Mapleton Landfill	Delicia Road, Mapleton
Woombye Landfill	Laidlaw Road, Woombye
Duck Holes Creek Landfill	Pelican Waters Boulevard, Caloundra West
Glass House Landfill	Mt Beerwah Road, Glass House Mountains
Witta Landfill	Cnr Cooke and Witta Roads, Witta
Eumundi Landfill	Eumundi-Noosa Rd, Verridale

In accordance with the *Australian Accounting Standard AASB137 (Provisions, Contingent Liabilities and Contingent Assets)*, Council is required to recognise a provision for any future costs associated with closing and restoring its landfills, where:

- it has a present obligation (legal or constructive) as a result of a past event
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation
- a reliable estimate can be made of the amount of the obligation.

This strategy aims to action landfill rehabilitation plans and examine options for possible future community use of the land.

### 3.6 Education program

The Sunshine Coast Council is committed to encouraging positive community change, particularly concerning attitudes, behaviours and practices regarding waste.

The first step is a clearly defined strategy that places an emphasis on continued development in the areas of education and community involvement in waste minimisation and resource recovery. To this end, the Waste 2 Resource Education Program was established in 2004. This program aims to:

- raise awareness and understanding towards waste and resource consumption issues and solutions
- provide the community with first hand experience in waste management issues and activities
- facilitate on-ground behavioural change and improve practices towards resource recovery, recycling and waste minimisation through engagement and education.

This program has built solid partnerships due to its longevity and exposure in the community. The program works year after year toward the common goal of improved waste related behaviours across the region. The program is currently delivered to approximately 6,000 people per year. Council's target is to increase this total by 5% annually and the actions in place in order to do so are listed in Object 2 (Table 11).

This engaging program partners with community groups, businesses, schools, local TAFE networks, early learning centres, the University of the Sunshine Coast and community members to ensure it's exposure across the community.



Image 18: Nambour waste and resource management education centre



### 3.7 Litter and illegal dumping

The Sunshine Coast Council is committed to improving the management of litter and illegal dumping by utilising a proactive and cost-effective approach. The *Litter Management Plan 2014-2016* addresses the ongoing issue of litter and illegal dumping in the Sunshine Coast local government area.

The plan's objectives are:

1. Adopt zero tolerance to illegal dumping.
2. Reduce the amount and incidence of littering and illegal dumping.
3. Increase enforcement of litter and illegal dumping offences.
4. Increase community awareness of littering and illegal dumping (why it's a problem and what to do to be part of the solution).
5. Encourage community involvement in litter and rubbish dumping prevention.
6. Adopt an advocacy role for Producer Responsibility and introduction of a Container Deposit Scheme in Queensland
7. Monitor and evaluate all programs and communicate results.

This strategy targets a reduction in incidences of littering and illegal dumping by 5% per annum and for the Council to adopt an advocacy role supporting the introduction of a Container Deposit Scheme in Queensland.

Throughout the 2013-2014 financial year Council received 159 littering reports and 935 illegal dumping reports. Of these incidents a 100% clean up rate was achieved. Of the 935 illegal dumping reports received during 2013/2014, 299 were referred to local laws for further investigation. Penalty infringement notices may be issued in accordance with the *Waste Reduction and Recycling Act (WRRRA) 2011*.

Illegal dumping and littering hotspots are monitored through a combination of covert surveillance techniques and highly visible regular inspection programs. By utilising ongoing enforcement and community education, Council has targeted an entirely achievable 5% reduction in illegal dumping occurrences.



Image 19: Public place litter and recycle bins



## Strategy Implementation

### 4.1 Waste Strategy 2015 - 2025

The Sunshine Coast Waste Strategy 2015-2025 is a high level strategic document that utilises short, medium and long-term objectives. The objectives have been developed to align future infrastructure needs with landfill diversion targets and the delivery of triple bottom line outcomes.

The Council's Waste and Resource Management branch is in a research and development phase to determine future regional waste infrastructure needs. The research completed will build on extensive case studies carried out under the previous strategy that assessed the viability of a range of alternate waste treatment processes and scenarios as outlined below.

Sunshine Coast Council is in a research and development phase to review AWT options, regional collaboration opportunities and determine future waste infrastructure needs.

Scenario		Core Technologies				
		Mechanical Pre-Treat	Mixed Waste MBT	Thermal	SSO Compost	Dual Line AWT
1	2-Bin Compost (mixed waste)		✓			
2	2-Bin Thermal (mixed waste)	✓		✓		
3	3-Bin Compost (organics)				✓	
4	3-Bin Compost (mixed waste & organics)					✓
5	2-Bin Compost Thermal (mixed waste)		✓	✓		

In accordance with this direction, the Waste and Resource Management branch will continue to re-assess the viability of these projects along with new emerging technology opportunities as circumstances change and markets evolve during the term of this new strategy.

Sunshine Coast Council's planned advancement of innovative, financially viable 21<sup>st</sup> century waste infrastructure for the future includes:

- Initial research and development phase including;
  - Review of current and emerging alternate waste technology / treatment systems; and
  - Delivery of innovative, financially viable 21<sup>st</sup> century waste infrastructure for future generations that will support projected population growth and deliver landfill diversion targets
- Construction of a new Resource Recovery Centre at Nambour;

- Expansion of waste and recycling collection services to cover > 95% of the regions premises;
- Adopting an advocacy role for Producer Responsibility and introduction of a Container Deposit Scheme in Queensland;
- Continue to work with, educate and engage our community to help change personal behaviours.
- Continue to trial and introduce initiatives to increase recycling rates, reduce organics disposal to landfill and increase landfill diversion.

In the short term Council's Waste and Resource Management branch does not expect its financial position to change. As medium and long term actions are investigated, business cases will be brought to Council for consideration as the economic impacts of capital investment into new infrastructure will have financial implications for the business.

## 4.2 Objectives

The objectives of the *Sunshine Coast Waste Strategy 2015-2025* support those presented in the *Queensland Waste Avoidance and Resource Productivity Strategy 2014-2024*. They are also aligned with Council's Corporate Plan 2014-2019.

### Objective 1

Cost effective resource recovery operations and efficient disposal of residual waste.

### Objective 2

A community that is well-informed and satisfied with waste management services.

### Objective 3

Waste operations conducted with the minimum affect on the environment.

### Objective 4

Waste management system operated in the most socially, economically and environmentally responsible manner.

### Objective 5

A system based on the Waste and Resource Management Hierarchy in order to minimise the amount of waste going to landfill.

The following tables outline the actions in place to support the achievement of the respective objectives. Action timelines of one, two and three are based on 1-3 years, 4-7 years and 8+ years respectively. Action costs of low, medium and high are valued at \$0-100k, \$101k-500k, and greater than \$500k respectively.

This strategy's objectives, targets and their relationship to the Sunshine Coast Council Corporate Plan 2014-2019 are itemised in Appendix B.

### 4.3 Actions

Table 10 - Objective 1: Cost effective resource recovery operations and efficient disposal of residual waste.

Target Link	Actions	Timeline	Measure / Source	Cost
1.1	Review of current and emerging waste treatment technologies and economic aspects of each process	1	Documented evidence, annual review of list	Low
1.1	Maintain a cooperative approach with other local Councils and utilities with the possibility of developing a regional facility	1	Attend regional workgroup meetings (ComSEQ <sup>1</sup> etc.)	Low
1.1	Adopt an advocacy role for Producer Responsibility including Container Deposit Legislation (CDL) and promotion of reduction in packaging materials	2	Lobby industry, state and federal government	Low
1.1	Investigate opportunities for waste processing activities at Sustainability Park or alternative sites to support Councils Economic Development Strategy	2	Potential markets, business initiatives and sites explored	Low
1.2	Ensure efficient and effective landfilling operations that maximise landfill life	1	>1000 kg per cubic metre compaction measured bi-annually	Low
1.2	Research grant processes and third party interest for the implementation of different treatment technology applications	3	Maintain currency in industry developments both nationally and internationally	Low
1.2	Identification of new landfill sites, associated bulk haul options and/or alternative waste technologies in and out of the SCC region in collaboration with other public utility or private sector partners as relevant	1	Business case for future waste disposal / transfer infrastructure requirements	Medium
1.2	Develop a new Business Plan outlining services, activities and projects contributing to Council's strategic goals	1	Approved Business Plan in place, updated annually	Low
1.2	Undertake financial modelling that sets prices to fully recover all the relevant costs of supplying services based on the polluter pays principle	2	Adopted financial model in place, updated annually	Low
1.2	Develop and implement Asset Management Plans to guide the optimal utilisation of resources	2	Asset Management Plan with linkages to financial plan in place	Low

<sup>1</sup> Council of Mayors South East Queensland

Table 11 - Objective 2: A community that is well informed and satisfied with waste management services.

Target Link	Actions	Timeline	Measure / Source	Cost
2.1	Maintain a website which is easily understood by the ratepayers	1	Review website access numbers annually	Low
2.1	Provide timely and relevant information to customers about waste management services	1	Information available on website and in print material	Low
2.1	Provision of safe waste disposal facilities	1	Nil reportable injuries per year	Medium
2.1	Provide efficient and reliable collection services meeting all relevant legislative requirements	1	<1 missed service complaint per 2,000 services	Medium
2.1	Prepare and implement media releases and segments informing the community about waste matters	1	Regular contact with internal media branch and number of releases prepared	Low
2.1	Investigate online and mobile technology solutions to provide better customer access to waste management information and services	2	Regular meetings and involvement with Council's information technology branch	Low
2.1	Maximise the safety and wellbeing of employees, contractors and volunteers	1	On an annual basis no major incidents reported	Low
2.2	Prepare, implement and monitor Annual Education Plan	1	Education Plan adopted, updated annually	Low
2.2	Provide education programs for schools and community groups	1	Monthly reports indicating participation rates and number of programs delivered	Medium
2.2	Evaluate the effectiveness of the education program through follow up feedback to determine behaviour change	1	Evaluation results profiled in annual education report	Low
2.2	Be involved in SCC displays at community events	1	Minimum of three events supported annually	Low



Table 12 - Objective 3: Waste operations conducted with minimum effect on the environment.

Target Link	Actions	Timeline	Measure / Source	Cost
3.1	Recovery of methane / NGERs <sup>1</sup> reporting as required and progress generation opportunities	1	Methane recovery graphed and documented evidence of NGERs <sup>1</sup> reporting	Low
3.1	Maintain a Site Based Management Plan (SBMP) for each site	1	Plans in place and functional for each site's individual requirements	Medium
3.1	Ensure that site contractors review and comply with their required actions under SBMP and site licences	1	Documented inspection program and audits carried out	Low
3.1	Examine opportunities for offsetting and/or reducing carbon emissions in line with Councils goal of carbon neutrality by 2020	2	Prepare a business case for review	High
3.1	Improve site operational methods to enable the capture of 40% of methane by 2020	2	% of methane captured measured annually	High
3.1	Investigate Emission Reduction Fund (ERF) opportunities for offsetting carbon emissions	1	Apply for grants where funding methodologies are met	Low
3.1	Develop Vegetation Offsets - Caloundra Landfill clearing and Buderim Resource Recovery Centre new Recycle Market clearing	2	Vegetation offsets in accordance with license requirements in place	Medium
3.1	Annual review of Business Continuity Plan and associated policies as outlined in Councils Climate Change Infrastructure Risk Assessment and Adaption Strategy	1	Annual review completed and plans updated	Low
3.1	Implement transitional environmental plans for Caloundra Landfill cut-off wall and stormwater diversion	1	Plans implemented	High
3.1	WRM to risk assess the effect of climate change on current and future developed facilities and investigate any identified issues	1	Plan in place and updated annually	Low
3.2	Maintain and implement a Litter Management Plan, maintain a surveillance program and reduce incidence of littering and illegal dumping by 5% per annum	1	Plan in place reviewed annually, surveillance program in place, 5% reduction per annum	Low

<sup>1</sup> National Greenhouse and Energy Reporting

Table 13 - Objective 4: A waste management system operated in the most socially, economically and environmentally responsible manner.

Target Link	Actions	Timeline	Measure / Source	Cost
4.1	Percentage of incoming waste that is diverted from landfill is greater than for the previous year adjusted for population and economic growth to support the achievement of recycling rate targets	1	% waste diversion measured annually	Medium
4.1	Conduct community and customer surveys to better inform the design and delivery of services	2	Biennial surveys completed	Low
4.1	Expansion of waste collection service area to encompass whole of region when service access and/or communal collection points can be established	1	95% of residences and businesses serviced	Low
4.1	Establish 10 year capital works plan, ensure minimum 90% spend for the year	2	Endorsed plan in place, updated annually	Low
4.1	Develop Local Law for the administration of waste management activities in preparation for the State devolving its responsibilities as part of the review of the Waste Management Regulation 2000	1	Local Law developed and adopted by Council	Medium
4.1	Investigate options for alternative waste collection system for new Maroochydore City Centre priority development area	1	Business case prepared and presented	Medium
4.1	As part of annual financial modelling review charging structure methodologies in line with any QCA recommendations	1	Changes to charging methodologies presented to Council	Low
4.1	Contribute to economic development through joint initiatives between communities and business	2	Resource recovery contracts offering profit share initiatives	Medium
4.1	Landfill rehabilitation plans to examine options for possible future community use of the land	2	Endorsed rehabilitation plan with possible future use options in place	Low
4.2	Waste services rates in the top three as determined by the Council biennial satisfaction survey	1	Council's biennial customer service survey	Low
4.2	Manage Council's existing waste contracts	1	Documented evidence of contractor monthly reports reviewed for compliance	Low

Table 14 - Objective 5: A system that is based on the Waste and Resource Management Hierarchy<sup>1</sup> in order to minimise the amount of waste going to landfill.

Target Link	Actions	Timeline	Measure / Source	Cost
5.1	Expand optional garden waste service to support the achievement of recycling rate targets	2	Increase garden waste services by 5% annually	Low
5.1	Develop and implement landfill price signals to encourage source waste separation, including initiatives	1	Increase in resource recovery and diversion rates	Medium
5.1	Expansion and promotion of the operation of the Recycle Markets to support the achievement of recycling rate targets	1	Increase in customer transactions	Low
5.1	Construction of a new Resource Recovery Centre (RRC) at Nambour to support the achievement of recycling rate targets	1	RRC constructed in 2016	High
5.1	Perform annual waste characterisation surveys of kerbside and self-hauled waste	1	Annual waste survey report	Low
5.2	Develop markets for diversion and management of new waste types from waste streams to support the achievement of recycling rate targets	3	Markets for new waste types established and diversion in place	Medium
5.2	In partnership with commercial business, develop waste audits to increase 'at the source' waste diversion	1	Increase in business recycling	Medium
5.2	Investigate options for a user pays bulky waste pickup collection system	2	Discussion paper prepared	Low
5.2	Determine waste generation rates for Council branches / activities as baseline data for improved recycling rates	2	Database established recording tonnages by activity	Low
5.2	Ensure annual per capita generation of waste remains less than 1.8 tonnes per person	1	Waste generation measured annually	Low

<sup>1</sup> Waste and Resource Management Hierarchy – Section 2.3, Figure 1

## Evaluation

Council will work with residents, businesses and industry to help achieve the objectives and targets within this strategy. Target measurement will be completed on an annual basis and reported according to Table 15.

Table 15: Key performance indicators

Objective	Target	Target Measure
Cost effective resource recovery operations and efficient disposal of residual waste.	Improve recycling rates for Commercial & Industrial waste to 55% and for Construction & Demolition Waste to 80% by 2024	C&I 55% C&D 80% recycling rate
	Effective landfilling operations delivering waste compaction in excess of 1,000kg per cubic metre	>1,000kg per cubic metre
A community that is well informed and satisfied with waste management services.	Provide efficient and reliable collection services resulting in less than 1 in 2,000 missed services	< 1 in 2,000 missed services
	Participants in our education programs through schools and community groups to increase by 5% annually*	5% annual increase in participants*
Waste operations conducted with minimum effect on the environment.	Improve site operational methods to enable a 40% methane capture rate by 2020	Measure of methane captured
	Reduction in incidence of littering and incidence of illegal dumping*	5% reduction per annum*
A waste management system operated in the most socially, economically and environmentally responsible manner.	Waste services rates in the top three as determined by Council's annual satisfaction survey	Waste services rates in the top 3 services
	Percentage of incoming waste that is diverted from landfill is greater than for the previous year*	Total waste diversion
A system on the Waste and Resource Management Hierarchy in order to minimise the amount of waste going to landfill.	Improve recycling rates for Municipal Solid Waste to 55% by 2024	MSW 55% recycling rate
	Ensure annual per capita generation of waste remains less than 1.8 tonnes per person	<1.8 tonnes waste/annum per person

\* The measurement of these metrics will be proportional to population growth.

Council's Waste and Resource Management Branch will ensure implementation of actions and achieve the objectives focused on **improved waste reduction and recycling**.

In line with the Queensland Waste Reduction and Recycling Act 2011, this strategy will be reviewed every three years and actions updated on an annual basis.



## Glossary

### Alternative Waste Technology (AWT)

Waste processing infrastructure using mechanical, biological and/or thermal processes as an alternative to, or pre-treatment prior to landfill disposal.

### Construction and Demolition Waste (C&D)

Unwanted materials produced directly or incidentally by building or demolition activities.

### Commercial and Industrial Waste (C&I)

Waste, other than green waste, recyclable waste, interceptor waste or waste discharged to a sewer, produced as a result of the ordinary use or occupation of commercial premises.

### Polluter Pays Principle

The principle that all costs associated with the management of waste should be borne by the persons who generated the waste.

### Putrescible Landfill

Landfills that are licensed for the disposal of waste that decomposes, e.g. food waste.

### Resource Recovery

The selective recovery of waste materials for a specific next use, such as recycling, composting or energy generation.

### Landfill Airspace

Amount of space directly related to the capacity and usable life of the landfill.

### Landfill Gas Capture

Collection of methane gas that is formed during the breakdown of decomposing waste.

### Leachate

Water that has percolated through the landfill itself and contains contaminating substances.

### Legacy Landfills

Former landfill sites for which Council still has an environmental responsibility.

### Materials Recovery Facility (MRF)

Facility for the sorting of mixed recyclable materials primarily from yellow lidded bins into separate material streams.

### Municipal Solid Waste (MSW) – domestic waste

Waste from households, usually either collected at the kerbside or delivered by residents to transfer stations/landfill sites.

### Site Based Management Plans (SBMP)

Identifies the potential environmental harm that may occur from routine operations and establishes and documents measures to avoid this harm as far as practicable.

### Recycle Markets

Facility that houses and sells quality used, recycled and second hand products that have been salvaged before going to landfill.

### Transfer Station

A building or processing site for the temporary deposition of waste.

### Waste and Resource Management Hierarchy

The waste hierarchy is the preferred order in which waste and resource management options should be considered with avoidance and reduction the most preferable, followed by reuse and recycling and disposal the least preferable option for managing waste. (Section 2.3, Figure 1).

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## Appendices

### Appendix A

Locality Name	Existing and Projected Population														
	Population in Single Dwellings					Population in Multiple Dwellings					Total Population				
	2011	2016	2021	2026	2031	2011	2016	2021	2026	2031	2011	2016	2021	2026	2031
Beerburum	320	339	456	482	543	6	9	9	8	8	326	348	464	490	552
Beerwah	3,247	4,155	4,445	4,710	5,326	443	879	2,430	2,699	3,170	3,690	5,034	6,875	7,409	8,495
Blackall Range	3,713	3,856	3,954	3,880	3,976	321	506	540	649	698	4,034	4,362	4,493	4,531	4,674
Bli Bli	5,619	5,749	6,151	6,233	6,541	703	1,942	2,663	4,133	4,200	6,321	7,691	8,814	10,365	10,741
Buderim	25,969	27,807	29,053	28,727	28,792	7,721	8,827	9,132	12,134	12,823	33,690	36,634	38,185	40,862	41,615
Caloundra	9,014	9,305	9,615	9,838	9,838	9,562	14,703	17,925	20,597	22,318	18,577	24,007	27,540	30,434	32,155
Caloundra South	0	2,280	12,445	16,723	20,623	0	0	5,046	10,400	16,900	0	2,280	17,491	27,123	37,523
Caloundra West	14,268	16,604	17,241	19,300	20,345	2,585	2,990	3,861	5,242	5,447	16,853	19,593	21,102	24,541	25,792
Coolum	8,874	9,984	10,006	10,005	10,088	3,406	5,359	6,851	8,015	9,352	12,279	15,343	16,857	18,019	19,441
Eudlo	217	215	218	216	216	3	20	23	22	28	220	235	241	238	244
Eumundi	603	730	821	847	872	49	665	1,471	1,674	1,702	652	1,395	2,292	2,520	2,574
Forest Glen / Kunda Park / Tanawha	2,670	3,076	2,977	3,131	3,164	130	279	415	490	493	2,800	3,355	3,392	3,621	3,656
Glass House Mountains	1,898	2,683	3,358	3,772	3,808	3	3	3	3	3	1,901	2,686	3,361	3,775	3,811
Golden Beach / Pelican Waters	7,201	7,475	7,838	9,425	10,773	2,270	2,859	3,442	3,622	3,940	9,471	10,334	11,280	13,047	14,713
Kawana Waters	23,436	23,024	23,794	24,544	24,665	7,334	9,232	11,257	13,894	15,421	30,770	32,256	35,051	38,438	40,087
Kenilworth	301	306	321	459	599	41	192	201	224	247	342	499	523	683	845
Landsborough	3,441	3,877	4,911	5,062	5,225	109	387	977	969	969	3,550	4,264	5,888	6,031	6,194
Maleny	1,822	2,782	2,877	3,629	4,281	618	1,292	1,341	1,675	2,028	2,440	4,074	4,218	5,305	6,308
Maroochy North Shore	5,936	6,129	6,175	6,178	6,178	2,792	3,223	3,223	4,346	4,696	8,728	9,352	9,399	10,523	10,873
Maroochydhore / Kuluin	6,815	6,454	6,330	6,242	6,445	8,819	13,758	18,984	24,366	27,812	15,633	20,212	25,313	30,607	34,258
Mooloolaba / Alexandra Headland	3,360	3,467	3,612	3,743	3,747	6,516	7,980	9,305	10,033	12,845	9,876	11,448	12,918	13,777	16,592
Mooloolah	2,228	2,534	2,944	3,024	3,304	19	204	235	252	252	2,247	2,738	3,179	3,276	3,556
Nambour	12,796	12,020	13,085	14,135	14,494	3,259	5,832	7,629	12,345	14,125	16,056	17,851	20,714	26,480	28,619
Palmview	0	2,750	5,060	9,240	15,207	0	284	284	284	1,386	0	3,034	5,344	9,524	16,593
Palmwoods	3,996	4,172	4,157	4,123	4,406	546	2,223	4,237	4,648	4,749	4,542	6,393	8,394	8,771	9,154
Peregian South	2,107	2,094	3,194	3,194	3,397	765	2,248	3,355	6,558	8,419	2,873	4,342	6,549	9,753	11,816
Rural	33,343	37,532	38,779	39,250	41,308	476	454	467	826	1,162	33,819	37,986	39,246	40,076	42,470
Sippy Downs	6,620	6,815	6,705	6,678	6,707	3,719	4,986	8,555	9,628	10,428	10,339	11,801	15,260	16,306	17,135
Woombye	941	1,066	1,039	1,127	1,151	104	795	776	1,081	1,081	1,044	1,861	1,815	2,208	2,232
Yandina	1,401	1,671	2,115	2,125	2,179	276	765	1,592	1,963	2,204	1,640	2,394	3,663	3,962	4,248
<b>Total Population</b>	<b>192,156</b>	<b>210,951</b>	<b>233,676</b>	<b>250,042</b>	<b>268,198</b>	<b>62,595</b>	<b>92,896</b>	<b>126,229</b>	<b>162,780</b>	<b>188,906</b>	<b>254,713</b>	<b>303,802</b>	<b>359,861</b>	<b>412,695</b>	<b>456,966</b>

## Appendix B

Sunshine Coast Waste Strategy 2015-2025					
SCC Vision	To be Australia's most sustainable region - vibrant, green, diverse				
Corporate Goals	A new economy	A strong community	An enviable lifestyle and environment	Service excellence	A public sector leader
SCC will achieve goals by:	Providing the regional policy and regulatory settings and identity that shape a globally competitive economy.	Supporting an engaged, resilient and inclusive community that embraces diversity.	Maintaining and enhancing the region's natural assets, liveability and environmental credentials.	Providing value for money services responsive to the needs of the community.	Delivering a high performance organisation, supported by good governance and robust decision making.
Objectives	Cost effective resource recovery operations and efficient disposal of residual waste.	A community that is well informed and satisfied with waste management services.	Waste operations conducted with minimum affect on the environment.	A waste management system operated in the most socially, economically and environmentally responsible manner.	A system based on the Waste and Resource Management Hierarchy in order to minimise the amount of waste going to landfill.
Targets	<p>1.1 Improve recycling rates for Commercial &amp; Industrial waste to 55% and for Construction &amp; Demolition waste to 80% by 2024.</p> <p>1.2 Effective land filling operations delivering waste compaction in excess of 1,000kg per cubic metre.</p>	<p>2.1 Provide efficient and reliable collection services resulting in less than 1 in 2,000 missed services.</p> <p>2.2 Participants in our education programs through schools and community groups to increase by 5% annually.</p>	<p>3.1 Improve site operational methods to enable a 40% methane capture rate by 2020.</p> <p>3.2 Reduction in incidences of littering and incidences of illegal dumping by 5% per year.</p>	<p>4.1 Waste services rates in the top three as determined by Council's annual satisfaction survey.</p> <p>4.2 Percentage of incoming waste that is diverted from landfill is greater than for previous year.</p>	<p>5.1 Improve recycling rates for Municipal Solid Waste to 55% by 2024.</p> <p>5.2 Ensure annual per capita generation of waste remains less than 1.8 tonnes per person.</p>
Actions	Refer Sunshine Coast Waste Strategy 2041-2025 - Section 4				







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