

5.3. WASTE REDUCTION RECYCLING PLAN

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DEPARTMENT: Sustainable Communities

RECOMMENDATION

That Council resolves to adopt the Douglas Waste Reduction and Recycling Plan 2016-2019 in accordance with the Waste Reduction and Recycling Act 2011.

EXECUTIVE SUMMARY

The *Waste Reduction and Recycling Act 2011* ("the Act") requires local governments in Queensland to prepare, adopt and implement a Waste Reduction and Recycling Plan ("the Plan") which addresses all aspects of waste management in its local government area. The attached Waste Reduction and Recycling Plan for Douglas Shire ("Douglas' Plan") was open for public consultation from Tuesday 12 January 2016 until Tuesday 9 February 2016 in accordance with the *WRR Act*.

The Plan is required to consider a range of factors as detailed in the Act, including waste reduction and recycling targets and strategies for achieving these targets. Targets in the Plan include the identification of baseline waste characteristics, reduction in waste generation throughout the Shire, an increase in recycling rates throughout the Shire and improved resource recovery at Transfer Stations.

Additional resources for 2015/16 will not be required as numerous strategies have been implemented or budgeted for, however budget and resource allocation will be required during the life of the plan, 2016 - 2019, as detailed in this report.

BACKGROUND

The Act requires the Plan to include waste reduction and recycling targets, strategies for achieving these targets, details of current and proposed infrastructure, management and monitoring of the local government's performance under the Plan and information about achieving continuous improvement in waste management. The *WRR Act* also requires the Plan to have regard to current and predicted information about population profiles, residential, industrial and commercial development, amounts and types of waste generated and services, markets and facilities relevant to dealing with different types of waste. The Plan must also have regard to the waste and resource management hierarchy and principles, and how the goals and targets of the State's waste management strategy will be achieved.

The Queensland Waste Avoidance and Resource Productivity Strategy ("Queensland's Waste Strategy") provides direction for waste management and resource recovery in Queensland until 2024. The vision for the strategy is for Queensland to become a national leader in avoiding unnecessary consumption and waste generation. To achieve this, the strategy sets a framework of principles and objectives as detailed in the Plan. The Strategy is informed by the resource management hierarchy, which sets out the order of preference for managing waste – from avoiding, to reusing, recovering, treating and disposing of waste as the least preferable option (Figure 1).

Figure 1: The Waste and Resource Management Hierarchy



Douglas' Plan includes targets and strategies which have been set with regard to the State's waste strategy, with a view to moving waste up the hierarchy through the implementation of education and awareness campaigns, increased resource recovery at Transfer Stations and waste audits to determine effectiveness of programs.

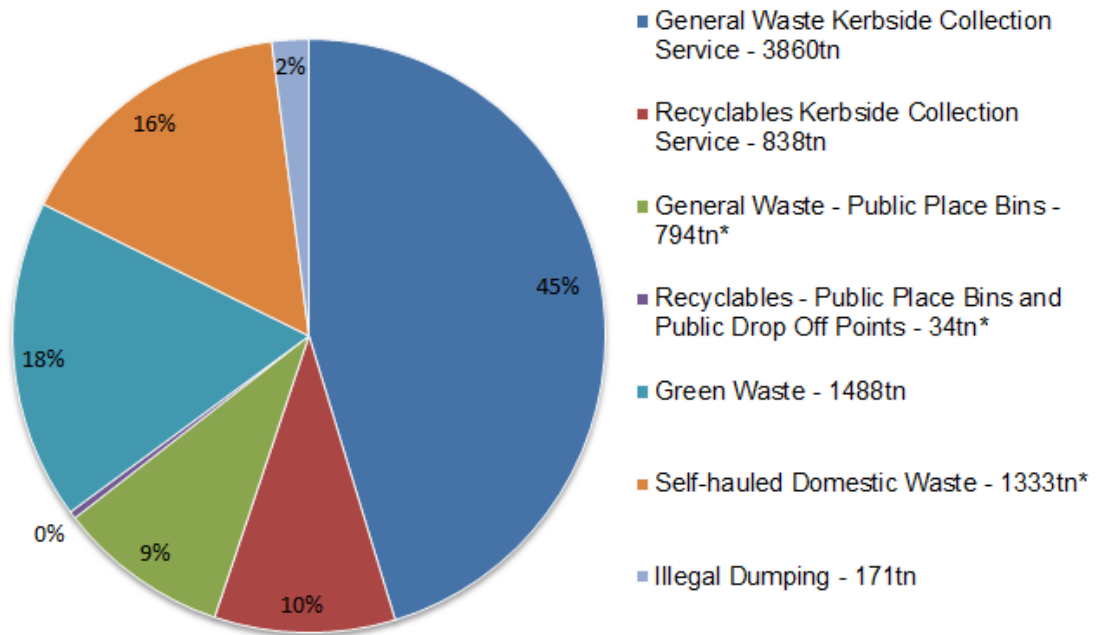
COMMENT

The waste profile for Douglas Shire is presented below in Table 1, represented by approximate annual tonnages of Municipal Solid Waste ("MSW"), Commercial and Industrial ("C&I") and Construction and Demolition ("C&D").

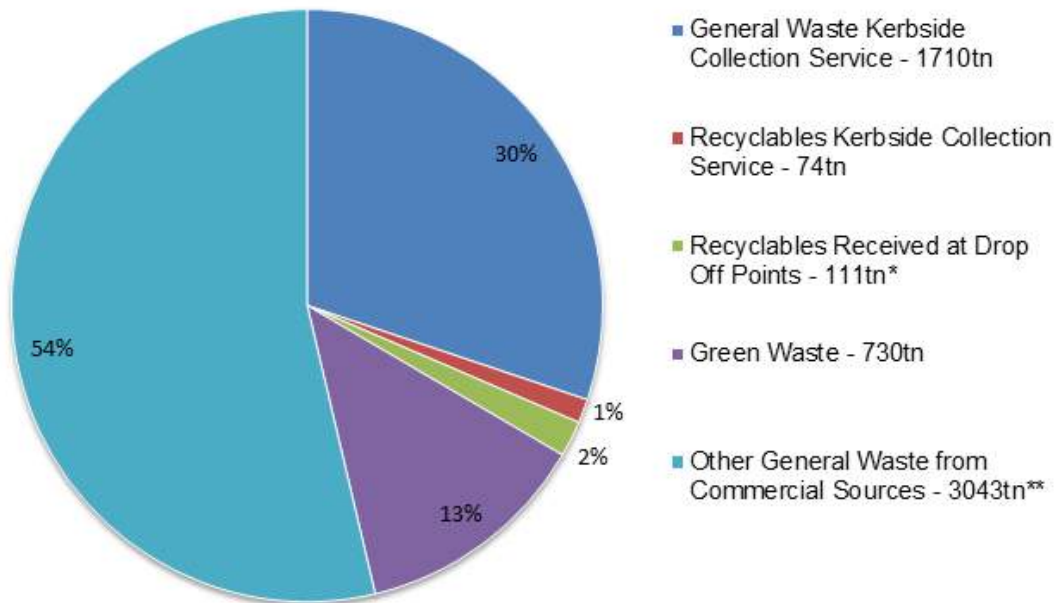
Table 1 – Waste Profile for Douglas Shire

Municipal Solid Waste (MSW)	Commercial and Industrial Waste (C&I)	Construction and Demolition Waste (C&D)
8518tn	5668tn	1480tn

Municipal Solid Waste (Household Waste) Approximate Annual Tonnages



Commercial & Industrial Waste Approximate Annual Tonnages



*Some volumes are based on deemed weights and percentages.

**Includes C&I received at all Council Transfer Stations.

Recovery baselines for each waste stream are shown below in Table 2.

Table 2 – Recovery Baselines for Douglas Shire

Waste Stream	Douglas Shire's 2014/15 Recovery Baseline
Municipal Solid Waste (MSW)	90%
Commercial and Industrial Waste (C&I)	80%
Construction and Demolition Waste (C&D)	1.2%

MSW and C&I recovery baselines include volumes of waste and recyclables collected in Council's kerbside collection service, which is calculated as 100% recovery in accordance with reporting requirements. There is a percentage of this volume which is not recovered, due to contamination in recyclable loads and un-processible items (residual waste) in the general waste loads. Currently Council's kerbside collection and self hauled waste is trucked to Cairns for treatment in the Advanced Resource Recovery Facility, operated under contract by Sita Environmental Solutions at Portsmith. General waste is processed into compost. Any residual waste (non-organic waste that cannot be processed) is transported to landfill on the Atherton Tablelands. The rolling average of beneficial reuse from the process over the past twelve months has been approximately 44%.

Included in the strategies for Douglas' Plan is a reduction in waste generation, including the development and implementation of a program to promote residential and commercial composting of organic material and an increase in recycling participation and recovery rates. Successful implementation of these strategies have the ability to reduce Council's disposal costs and reduce environmental impacts through the consumption of finite resources.

The recovery baseline does not account for presentation or participation rates in recycling. Indications are that parts of the residential collection and the commercial collection participation are low in Douglas Shire due to the lack of community awareness about recycling practices and education about what can be recycled. This has been considered in setting the targets and strategies below.

The recovery baseline for C&D waste is low because most C&D waste received at Council's Transfer Stations goes to landfill. This is partly due to this waste type being mixed (not sorted into different waste types for recycling), that markets do not exist and that alternative or potential uses have not been identified. This has also been considered in setting the targets and strategies below.

The Douglas Plan was open for public consultation from Tuesday 12 January 2016 until Tuesday 9 February 2016 in accordance with the Act. The invitation to comment on the Douglas Plan was advertised in the Port Douglas and Mossman Gazette, on Council's Facebook and on Council's website. No submissions were received.

PROPOSAL

Targets and strategies in Douglas' Plan are outlined below in Table 3.

Table 3 – Targets and Strategies in Douglas' Plan

Waste Reduction and Recycling Targets	Strategies to be Implemented to Achieve Targets
Target 1 – Identification of Baseline Waste Characteristics for Future Decision Making, Including Resource Allocation.	Strategy 1 – Identifying Baseline Waste Characteristics in Douglas Shire:-
	S1.1 – Undertaking waste characterisation audits on household, commercial and public place waste receptacles.
	S1.2 - Installing waste monitoring systems at remote facilities to more accurately measure and report on volumes of waste types.
Target 2 - Reduction in Waste Generation Throughout the Shire.	Strategy 2 – Development and implementation of education and awareness campaigns:-
	S2.1 - Development and implementation of a community education campaign targeting the themes of waste reduction and recycling.
	S2.2 - Development and implementation of an internal education campaign for Council employees targeting themes of waste reduction and recycling in carrying out activities.
	S2.3 - Development and implementation of a program to promote residential and commercial (where suitable) composting of organic material.
Target 3 – An increase in recycling rates throughout the Shire.	Strategy 3 – Implementation of recycling programs:-
	S3.1 - Encouraging the responsible use of recycling bins at community events.
	S3.2 – Encouraging public place recycling.
	S3.3 - Development and Implementation of an Illegal Dumping Strategy.
	S3.4 - Introduction of tailored recycling programs for commercial premises and Multi-Unit Dwellings.
Target 4 - Improved resource recovery at Transfer Stations.	Strategy 4 – Increased Resource Recovery
	S4.1 – Improving the recovery of recyclable items from the waste stream at Transfer Stations.
	S4.2 - Establishment of a recycle shop at Killaloe Transfer Station. This will begin as a

Waste Reduction and Recycling Targets	Strategies to be Implemented to Achieve Targets
	give-back shop until feasibility is established.
	S4.3 – Investigating market opportunities for waste with an existing resource value, particularly concrete and other C&D waste.
	S4.4 - Adopting fees and charges which encourage the separation of items from the waste stream.

FINANCIAL/RESOURCE IMPLICATIONS

Budget and resource allocation will be required to implement strategies for the life of the Plan, 2016-2019, as detailed in Table 4.

Table 4 – Estimated Budget and Resource Requirements 2016-2019

Strategies to Achieve Targets	Resource Required	Estimated Budget - 2016/17	Estimated Budget - 2017-2019
Strategy 1 – Identifying Baseline Waste Characteristics in Douglas Shire:-			
<ul style="list-style-type: none"> S1.1 – Undertaking audits on household, commercial and public place waste receptacles. 	Waste composition audits and reconciliation surveys to determine effectiveness of education and awareness campaigns.	\$40,000.00	\$20,000.00
<ul style="list-style-type: none"> S1.2 - Installing waste monitoring systems at remote facilities to more accurately measure and report on volumes of waste types. 	<p>This is included in the 2015/16 Capital Works Budget.</p> <p>Ongoing costs are expected to be minimal for the life of this plan.</p>	-	-
Strategy 2 – Development and implementation of education and awareness campaigns:-			
<ul style="list-style-type: none"> S2.1 - Development and implementation of a community education campaign targeting the themes of waste reduction and recycling. 	Education and awareness programs to be developed or purchased.	\$10,000.00 + additional internal resources for program management.	\$10,000.00 + additional internal resources for program management.

Strategies to Achieve Targets	Resource Required	Estimated Budget - 2016/17	Estimated Budget - 2017-2019
<ul style="list-style-type: none"> S2.2 - Development and implementation of an internal education campaign for Council employees targeting themes of waste reduction and recycling in carrying out activities. 	No additional resources required, this can be incorporated into existing induction and training procedures.	-	-
<ul style="list-style-type: none"> S2.3 - Development and implementation of a program to promote residential and commercial (where suitable) composting of organic material. 	Education and awareness programs to be developed or purchased. Possible subsidisation of composting equipment.	\$15,000.00	\$10,000.00
Strategy 3 – Implementation of recycling programs:-			
<ul style="list-style-type: none"> S3.1 - Encouraging the responsible use of recycling bins at community events. 	Advertising as required. Labour and collection costs.	\$5,000.00	\$5,000.00
<ul style="list-style-type: none"> S3.2 – Encouraging public place recycling. 	Installation of custom made recycling bins in areas with high foot traffic.	\$25,000.00	\$20,000.00
<ul style="list-style-type: none"> S3.3 - Development and Implementation of an Illegal Dumping Strategy. 	This is included in the 2015/16 Operational Plan. Resources will be required for advertising and specific awareness campaigns.	\$5,000.00	\$5,000.00
<ul style="list-style-type: none"> S3.4 - Introduction of tailored recycling programs for commercial premises and Multi-Unit Dwellings. 	This will require evaluation of reconciliation surveys by a Council Officer and recommendations provided on a case-by-case basis.	Internal Resources.	Internal Resources.
Strategy 4 – Increased Resource Recovery			
<ul style="list-style-type: none"> S4.1 – Improving the recovery of recyclable items from the waste stream at Transfer Stations. 	This is included in the current Contract for Killaloe Transfer Station.	-	-
<ul style="list-style-type: none"> S4.2 - Establishment of 	Small scale infrastructure is already	-	Infrastructure upgrades will

Strategies to Achieve Targets	Resource Required	Estimated Budget - 2016/17	Estimated Budget - 2017-2019
a recycle shop at Killaloe Transfer Station. This will begin as a give-back shop until feasibility is established.	available at Killaloe.		be required for expansion of the recycle shop and drop-off areas.
<ul style="list-style-type: none"> S4.3 – Investigating market opportunities for waste with an existing resource value, particularly concrete and other C&D waste. 	No additional resources required, investigations are ongoing.	-	-
<ul style="list-style-type: none"> S4.4 - Adopting fees and charges which encourage the separation of items from the waste stream. 	No additional resources required.	-	-

RISK MANAGEMENT IMPLICATIONS

Provision of Resources:

Strategies cannot be implemented unless budget and resource allocations are sufficient, including internal resources for project management.

SUSTAINABILITY IMPLICATIONS

Economic:

Numerous economic benefits are to be expected from reducing waste and increasing recycling volumes in the Douglas Shire, including lower processing costs and increased income from recyclables including scrap metal, batteries and secondary markets. Increased resource recovery will also result in higher landfill diversion rates increasing the life of the landfill.

Environmental:

Waste reduction and increased resource recovery rates will result in improved environmental outcomes. The waste hierarchy, in particular reducing and reusing items reduces adverse environmental impacts associated with the consumption of natural resources, the manufacture and use of products and the disposal of waste help ensure the health of both local communities, ecosystems and biodiversity.

Social: Waste reduction and resource recovery is important to residents and tourists to Douglas Shire. Education and providing choices for communities on waste, particularly in relation to the waste hierarchy allows communities to change behaviours and contribute to a sustainable living environment. Well informed communities with choices have the ability purchase wisely, reduce packaging, re-use items and influence suppliers. Waste minimisation provides leadership to the community and demonstrates commitment to social and environmental responsibility.

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2014-2019 Initiatives:

Theme 3 - Improve Environmental Performance

3.1.5 - Investigate opportunities for improved recycling and re-use of waste deposited at landfill sites.

3.1.6 - Pursue best practice management outcomes for waste management facilities.

Operational Plan 2015-2016 Actions:

DE4 - Revise waste management strategy.

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

Asset-Owner	Meeting the responsibilities associated with owning or being the custodian of assets such as infrastructure.
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CONSULTATION

Internal: Internal consultation was undertaken with the Community & Economic Development Project Officer and Regulatory Services.

External: Waste Reduction and Recycling Plans from other Local Governments in Queensland were consulted during the drafting of Douglas' Plan.

COMMUNITY ENGAGEMENT

The Douglas Plan was open for public consultation for 28 days in accordance with the Act, from Tuesday 12 January 2016 until Tuesday 9 February 2016. No responses were received.

ATTACHMENTS

Attachment 1 - Douglas Shire Council's Waste Reduction and Recycling Plan.



Waste Reduction and Recycling Plan 2016-2019

Version	Prepared By	Issue for Review to & Date	Authorised by	Signature & Date
1	Abbey Belcher	08/01/16	Paul Hoyer	11/01/16
2	Abbey Belcher	10/02/16	Paul Hoyer	10/02/16

Title:	Waste Reduction and Recycling Plan 2016-2019
Author/s:	Abbey Belcher, Technical Officer Waste
Controlled Distribution List:	This document is uncontrolled when printed.

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- 3. Reuse, recovery and recycling: Queensland will optimise economic benefits from reuse, recovery and recycling; and
- 4. Management, treatment and disposal: Queensland will reduce the impact of waste on human health and the environment through improved waste practices.

The Strategy is informed by the resource management hierarchy, which sets out the order of preference for managing waste – from avoiding, to reusing, recovering, treating and disposing of waste as the least preferable option (Figure 1).

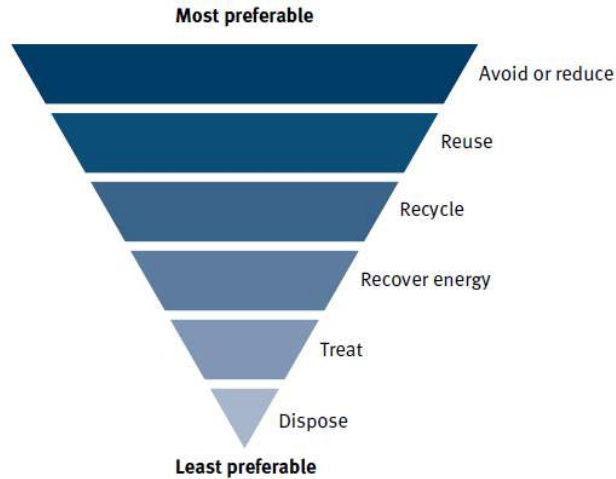


Figure 1: The Waste and Resource Management Hierarchy

The *WRR Act* details the meaning of the waste and resource management hierarchy:

- (a) Avoid unnecessary resource consumption;
- (b) Reduce waste generation and disposal;
- (c) Reuse waste resources without further manufacturing;
- (d) Recycle waste resources to make the same or different products;
- (e) Recover waste resources, including the recovery of energy;
- (f) Treat waste before disposal, including reducing the hazardous nature of waste;
- (g) Dispose of waste only if there is no viable alternative.¹

¹ Waste Reduction and Recycling Act 2011, s9.

5.2.1 Killaloe Transfer Station

Killaloe Transfer Station (“Killaloe”) is located on Dump Road, Killaloe. It is open 8am-6pm Monday to Saturday and 9am-6pm Sunday, Closed Christmas Day.

Waste acceptance criteria for Killaloe:

- Domestic and commercial treatable waste;
- Co-mingled recyclables – plastic, glass bottles, cans and cardboard;
- Dry inert landfill items;
- Wet Cell Batteries;
- Solvents (<25L);
- Motor Oil (<25L);
- Tyres;
- White Goods;
- Regulated waste containers;
- Asbestos for on site disposal;
- Chemical Drums (DrumMuster);
- Car bodies and scrap metal;
- Gas cylinders and fire extinguishers;
- Clean fill; and
- Green waste for storage and processing on site.

Treatable waste collected in the kerbside collection service is taken to Killaloe and deposited into the Treatable Waste Bay (Bay 5). This waste, along with treatable waste self-hauled to Killaloe, is regularly loaded into a 30m Roll on Roll off bin (RoRo) for transport to the ARRF in Cairns for processing into compost.

Recyclables from the kerbside collection service are transported directly to the MRF in Cairns, while recyclables received at Killaloe are loaded into a bulk bin at Killaloe for transport to the MRF.

Killaloe Transfer Station receives approximately 7,000 tonnes of Municipal Solid Waste, approximately 4,680 tonnes of Commercial and Industrial Waste and 1,480 tonnes of Construction and Demolition Waste annually. Approximately 3,400 tonnes of this waste is deposited into Killaloe landfill each year.²

Transfer station operators separate and recover recyclable items from the waste stream where possible in an effort to increase landfill diversion rates. Reusable items are also being sorted and stored at Killaloe in preparation for the establishment of a recycle shop at the time of drafting this WRR Plan.

5.2.2 Killaloe Landfill

Killaloe landfill is located adjacent to Killaloe Transfer Station on Dump Road, Killaloe. Waste acceptance criteria is restricted to solid inert waste and asbestos sheeting. Approximately 3,400 tonnes of waste and 17 tonnes of asbestos was deposited into Killaloe Landfill in 2014/15.

² Volumes of residual waste sent to landfill after being exported from Douglas Shire for processing have not been included in this calculation.

7. Recovery Baselines

Recovery baselines for Douglas Shire are shown below in Table 3.⁴

Table 3 – Recovery Baselines for Douglas Shire

Waste Stream	Douglas Shire’s 2014/15 Recovery Baseline
Municipal Solid Waste (MSW)	90%
Commercial and Industrial Waste (C&I)	80%
Construction and Demolition Waste (C&D)	1.2%

Waste reduction and recycling targets identified below in Table 5 include increased recovery rates at Transfer Stations; this includes Construction and Demolition waste which currently has a low level recovery baseline.

8. Queensland’s Waste Strategy

The strategy sets targets for improving resource recovery and recycling rates and reducing landfill disposal. These targets take account of different circumstances in metropolitan, regional and remote parts of Queensland.

Table 4 – Targets from the State’s Waste Strategy⁵

Waste stream	Measure	2012-13 recovery baseline	2024 target
All general waste	Reduction in per capita generation	1.9 tonnes general waste per person per year	Reduce (by 5%) to 1.8 tonnes per person per year
Municipal solid waste (domestic)	Improved recycling rate	33% state <ul style="list-style-type: none"> • 37% metropolitan • 30% regional centre 	50% state <ul style="list-style-type: none"> • 55% metropolitan • 45% regional centre • Improve practices as much as practicable for remote areas
Commercial and industrial waste	Improved recycling rate	42% State	55% State
Construction and demolition waste	Improved recycling rate	61% state	80% state
Landfill diversion target	Reduction in the amount of waste going to landfill	4,675,000 tonnes to landfill	Reduce by 15% over life of strategy
Problem or priority wastes	Improved management of each waste	Individual baselines to be developed	Individual measures to be developed

The strategy sets a target for reduction of all general waste generated per person per year by 5%. Differentiated targets are set for municipal solid (household) waste based on geographic location. The strategy proposes a 55% recycling rate in metropolitan areas, 45% in regional areas and 50% across Queensland. Remote areas are to improve recycling rates as much as practicable due to location and distance to facilities.

⁴ Volumes of residual waste sent to landfill after being exported from Douglas Shire for processing have not been included in this calculation.

⁵ Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024).

The Strategy proposes to increase the recycling rate of commercial and industrial waste to 55% across the state, and construction and demolition waste to increase to 80% across the state.

The strategy also identifies the highest priority wastes for action, priority wastes are those with high disposal impacts (such as toxicity or greenhouse gas emissions), social impacts (which cause community concern or impact upon amenity) or whose recovery would present resource savings or business opportunities. The *WRR Act* enables the Queensland Government to work with industry and the community in identifying priority wastes and determining the most appropriate management options for each.

Waste streams identified as priorities for Queensland are shown below in Table 5.

Table 5 – Queensland’s Priority Wastes⁶

Priority waste stream	Priority material
Plastic waste	Agricultural plastics Packaging waste Plastic bottles, bags and other consumer plastics
Organic waste	Households: <ul style="list-style-type: none"> • green waste • food waste Commercial premises: <ul style="list-style-type: none"> • hospitality • food processing
High volume wastes with an existing resource value	Concrete Treated timber Plasterboard
Regional impact waste	Mining and industry development Mattresses Orphan agricultural and veterinary chemicals
Complementary national product stewardship measures	Fluorescent lights Used tyres Used oil

The strategy will be implemented through action plans that may be developed at a government or sectorial level and will complement the objectives and priorities of the Strategy.

Douglas is participating in a Farm Waste Recovery Trial at the time of drafting this report, which aims to collect and recover fertiliser bags to increase landfill diversion rates. Douglas also continues to participate in the DrumMuster collection and recycling scheme, recovering approximately 1700 DrumMuster drums annually.

9. Future projections for Douglas Shire

Douglas Shire is not expected to have any significant population growth in the next 3 years, the capacity for growth constrained by the need for expensive infrastructure upgrades and limited supply of unconstrained land. Additional infrastructure and services are therefore not expected to be required during the timeframe of this WRR Plan; however systems will be implemented to improve waste reduction and recycling performance of Douglas Shire as a whole. This will include the installation of more sophisticated waste tracking systems at Council’s remote Transfer Stations, surveillance system at Killaloe Transfer Station and Landfill and the establishment of a recycling shop at Killaloe Transfer Station to increase landfill diversion rates. Waste audits of commercial premises and public place bins will also be undertaken to determine baseline waste characteristics and inform future decision making.

Future landfill disposal options will be considered during the life of this WRR Plan to prepare for Killaloe

⁶ Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024).

Landfill reaching capacity.

10. Waste Reduction and Recycling Targets

Council has set waste reduction and recycling targets which aim to reduce overall volumes of waste generated within the Shire, increase participation rates in kerbside recycling and result in improved resource recovery rates at Transfer Stations. Targets have been set with regard to the waste and resource management hierarchy, with a view to moving waste up the hierarchy as a priority and in an effort to achieve the goals and targets of the State's Waste Management Strategy. Council's targets and strategies are presented below in Table 5.

Table 5 – Waste Reduction and Recycling Targets

Waste Reduction and Recycling Targets	Strategies to be Implemented to Achieve Targets	Key Performance Indicators to Monitor Performance	Timeframe for Implementation
Target 1 – Identification of Baseline Waste Characteristics for Future Decision Making, Including Resource Allocation.	Strategy 1 – Identifying Baseline Waste Characteristics in Douglas Shire:-		
	S1.1 – Undertaking waste characterisation audits on household, commercial and public place waste receptacles.	KPI 1.1 – Waste Characterisation report completed and results considered for resource allocation.	2015/16 Commencement of Audits. Budget & Resource Allocation 2016/17 for Continuation of Audits and Report.
	S1.2 - Installing waste monitoring systems at remote facilities to more accurately measure and report on volumes of waste types.	KPI 1.2 - Waste monitoring system installed at Newell Beach Transfer Station, and associated manual tracking sheets utilised at Daintree and Cow Bay Transfer Stations.	2015/2016 - Budget Allocated.
Target 2 - Reduction in Waste Generation Throughout the Shire.	Strategy 2 – Development and implementation of education and awareness campaigns:-		
	S2.1 - Development and implementation of a community education campaign targeting the themes of waste reduction and recycling.	KP2.1 - Reduction in waste generated by households and commercial properties within the Local Government Area, including volumes of illegal dumping.	Budget & Resource Allocation 2016/2017. Ongoing.
	S2.2 - Development and implementation of an internal education campaign for Council employees targeting themes of waste reduction and recycling in carrying out activities.	KPI2.2 - Reduction in waste generated by Council in carrying out its activities.	Ongoing – reported on annually.

	S2.3 - Development and implementation of a program to promote residential and commercial (where suitable) composting of organic material.	KPI2.3 – Development and implementation of a program to promote residential and commercial composting of organic material.	Ongoing – reported on annually.
Target 3 – An increase in recycling rates throughout the Shire.	Strategy 3 – Implementation of recycling programs:-		
	S3.1 - Encouraging the responsible use of recycling bins at community events.	KPI3.1 - Increase in volume of uncontaminated recyclable product collected from community events.	2015/2016. Ongoing.
	S3.2 – Encouraging public place recycling.	KPI3.2 – Implementation of more public place recycling bins in areas with high foot traffic.	2015/16. Ongoing.
	S3.3 - Development and Implementation of an Illegal Dumping Strategy.	KPI3.3 – Illegal Dumping Strategy Implemented	2015/2016 and ongoing.
	S3.4 - Introduction of tailored recycling programs for commercial premises and Multi-Unit Dwellings.	KPI3.4 - Increase in recycling programs implemented in commercial premises and Multi-Unit Dwellings.	2015/2016 and ongoing. Budget and resource allocation 2016/17.
Target 4 - Improved resource recovery at Transfer Stations.	Strategy 4 – Increased Resource Recovery		
	S4.1 – Improving the recovery of recyclable items from the waste stream at Transfer Stations.	KPI4.1 - Increased Landfill Diversion Rates.	Ongoing – reported on annually
	S4.2 - Establishment of a recycle shop at Killaloe Transfer Station. This will begin as a give-back shop until feasibility is established.		2015/16 – Feasibility determination 2016/17 – Implementation of recycling shop
	S4.3 – Investigating market opportunities for waste with an existing resource value, particularly concrete and other C&D waste.		Ongoing – reported on annually

	S4.4 - Adopting fees and charges which encourage the separation of items from the waste stream.	2016/17 and ongoing.

11. Monitoring of Performance

Council will submit an annual report to the Department of Environment & Heritage Protection within 2 months of the end of each financial year about the operation of the WRR Plan. This will commence after the 2016/17 financial year, being the first full financial year of implementation.

Annual reporting will include an evaluation of performance under the WRR Plan which will assist Douglas in achieving continuous improvement in waste management throughout the Shire.

12. Community Consultation and Adoption

Council's draft Waste Reduction and Recycling Plan (2016-2019) was open for public consultation from Tuesday 12 January 2016 until Tuesday 9 February 2016. Advertising was undertaken on Council's website, social media and in the Port Douglas and Mossman Gazette.

13. Review

This Plan will be reviewed every three years in accordance with the *WRR Act*. Any amendments which will substantially affect the operation of the plan must be adopted by Council if considered appropriate, having regard to changing waste reduction and recycling opportunities, changing circumstances in which the Plan operates and any other matters arising from a review of the Plan.