



Waste Reduction and Recycling Plan

2020-2022

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Introduction and purpose

OBJECTIVE

This Waste Reduction and Recycling Plan provides the framework and direction Queensland Corrective Services (QCS) has chosen to adopt as its commitment to promote waste avoidance and reduction, as well as resource recovery and efficiency actions.

The Plan aims to demonstrate QCS' commitment to managing the impact of its own activities through embracing effective, ethical and environmentally responsible approaches to waste reduction and recycling.

LEGISLATIVE FRAMEWORK

QCS is committed to efficiently using resources and minimising waste. To achieve this, QCS focuses on avoiding waste in the first instance and reusing and recycling materials where this is cost effective.

The *Queensland Waste Reduction and Recycling Act 2011* (the Act) requires each State entity to prepare, adopt and implement a waste reduction and recycling plan.

Each plan will contribute to achievement of the 10-year state-wide targets set in the Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024).

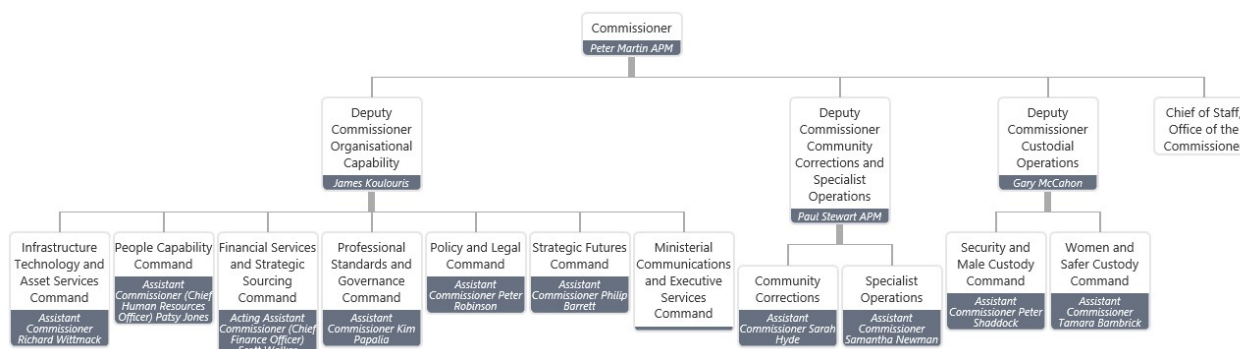
QCS' plan for waste reduction and recycling sets the department's direction for waste management for the three-year period ending in June 2022.

AGENCY OVERVIEW

Over 5,000 QCS staff deliver services across Queensland. Staff are located in high and low security correctional centres, work camps, regional and district Community Corrections offices and reporting centres, in addition to a central office in the Brisbane CBD.

More than 8,800 prisoners and 21,000 offenders are supervised or supported by QCS staff. These figures are subject to fluctuation.

Organisational Chart



QCS is comprised of the following divisions:

- **Organisational Capability** upholds accountability, transparency and performance standards across correctional facilities and assists with the delivery of corporate services to all operational areas of the agency.
- **Community Corrections and Specialist Operations** develops, implements, monitors and evaluates offender management and rehabilitation services.
- **Custodial Operations Division** manages the delivery of safe and efficient custodial services in the state's high and low security correctional centres across Queensland.

Correctional Centres and facilities are owned by QCS. Community Corrections and other offices are predominately leased through the Queensland Government Accommodation Office (QGAO) within the Department of Housing and Public Works (DHPW).

Correctional Centres operate on a 24/7 basis and buildings in the portfolio vary considerably in size and age, as does their complexity and occupancy level.

Scope

The primary focus of this plan is to develop an understanding of the types of waste generated as a result of QCS' operations and implement a range of activities to help improve the way in which the agency manages and reduces waste.

INCLUSIONS

This plan applies to all QCS staff and the management of regulated and general waste at:

- all high and low security correctional centres
- all work camp facilities
- Community Corrections offices and reporting centres
- Corporate head office accommodation.

EXCLUSIONS

This plan does not apply to

- residences or employee housing
- waste products generated from the consumption of energy and water or the emission of carbon by QCS. These are subject to separate management plans.

Waste overview

Waste is defined as anything that is:

- left over, or an unwanted by-product, from an industrial, commercial, domestic or other activity
- surplus to industrial, commercial, domestic or other activity generate the waste.

It can be a gas, liquid, solid or energy, or a combination of any of them and does not need to be of value.

WASTE CATEGORISATION

For the purposes of waste management, QCS operations have been divided into two broad categories: **office based**, and **non-office based**.

The rationale behind this distinction is the underlying assumption that office-based functions will generate a generic waste stream irrespective of the geographical location or the specific role performed. This waste is typically general waste, co-mingled recycling, paper, organics and cardboard. The non-office-based activities generate waste streams that are very different to office-based operations.



WASTE GENERATED FROM OFFICE-BASED OPERATIONS

It is anticipated that the QCS' office-based waste stream will likely be consistent with the profile of waste generated in a typical office environment, as represented in Figure 1.

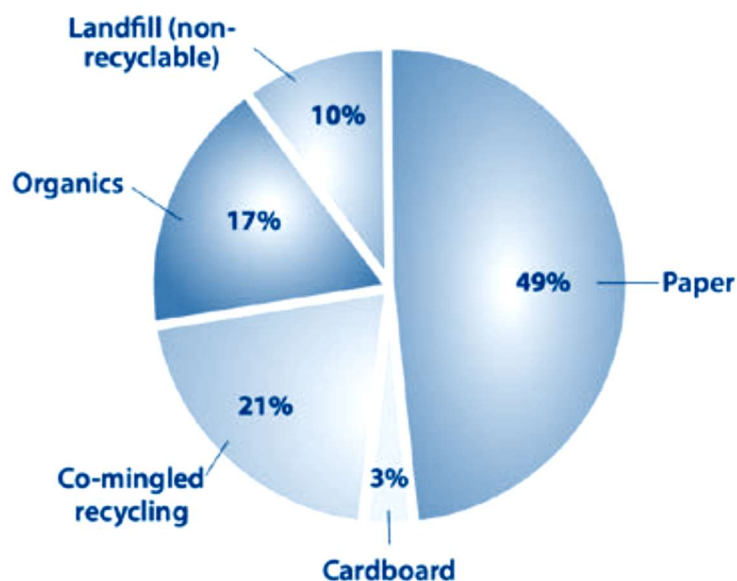


Figure 1: Typical office-based waste streams

Source: *Public Sector Environmental Management Reducing the Environmental Impacts of Public Sector Operations*

WASTE GENERATED FROM NON-OFFICE BASED OPERATIONS

The majority of the waste generated from departmental operations is derived from non-office based facilities such as correctional centres. In addition to producing waste similar to that generated from office-based operations, correctional centres also manage:

- liquid and gas wastes generated by correctional centre kitchens and laundries
- the treatment of sewerage and waste water on site at various correctional centre plants and facilities
- waste generated from use of raw materials in correctional centre industries.

QCS has worked to baseline waste data collection from these facilities to understand the volume and type of waste generated.

The construction, renovation, maintenance and demolition work for QCS' tenanted buildings and other facilities is usually undertaken by third parties (e.g. external contractors) on behalf of the building owner, the department and agencies.

QCS in these instances is not directly responsible for the associated waste generated from these sites, and may be able to influence waste minimisation activities, such as by encouraging contractors to divert as much waste as possible from landfill through the effective use, reuse and recycling of materials. If QCS initiates the works undertaken in its owned buildings, the department can influence the contractor in undertaking and reporting waste reuse and/or recycling.

Current eWaste disposal practices in QCS are compliant with the Queensland Government requirements under Information Standard 13 - Procurement and disposal of ICT products and services including Information Standard 18 - Information Security.

Waste management approach

QCS' approach to waste and resource management has been guided by the principles set out in the waste and resource management hierarchy and resource management principles outlined under the Act.

THE WASTE MANAGEMENT HIERARCHY

The waste and resource management hierarchy (Figure 2) sets the order of preference for options to manage waste, from avoiding and reducing, to re-using, recovering, treating and disposing of waste.

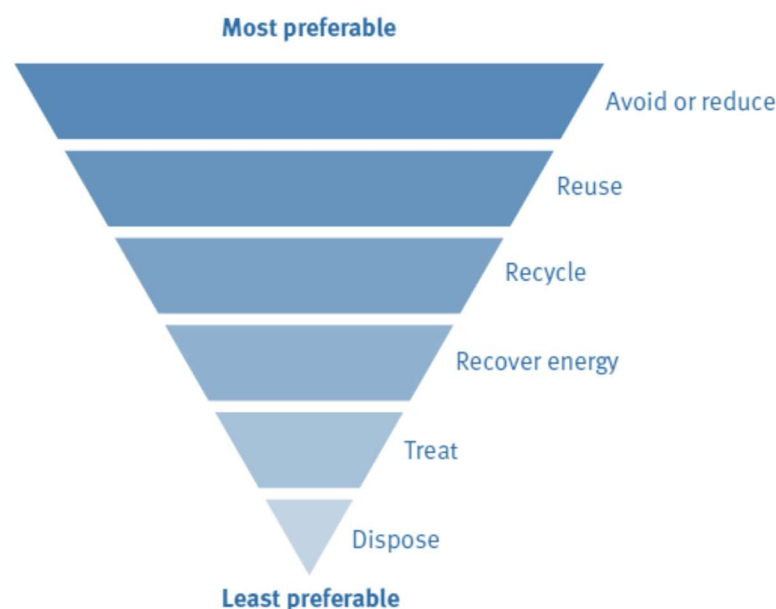


Figure 2: Queensland's waste and recycling strategy - Waste management hierarchy

Source: <https://www.ehp.qld.gov.au/waste/qld-waste-strategy.html>

The waste and resource management hierarchy is a tool to help decision-makers prioritise waste reduction and recycling activities. Where avoidance is not possible, options should be investigated for the re-use and then the recycling of waste materials. As a next available option, waste could be used as a source of energy. Disposal of waste should be the last resort. Additional detail is provided in Table 1 on how QCS will use the hierarchy in managing its waste.

Management option	Definition	Examples of waste reduction and recycling activities
Avoid	Avoid unnecessary resource consumption.	Avoid the generation of paper waste by encouraging the use of electronic copies of documentation.
Reduce	Reduce waste generation and disposal.	Ensure all printers are set to double-sided printing as a default. Use of black & white print to reduce turnover of colour cartridges.
Reuse	Reuse waste resources without further manufacturing.	Review policies on the disposal of obsolete IT (or other) equipment with a focus on identifying alternative uses or users.

Management option	Definition	Examples of waste reduction and recycling activities
Recycle	Turning waste resources into similar or different products.	Increase staff awareness in order to maximise co-mingled recycling and avoid contamination of recycling bins.
Disposal	Dispose of waste only if there is no viable alternative.	QCS will ensure that our waste will only be disposed of at landfill facilities that are operated in accordance with prescribed legislation.

Table 1: Waste and resource management hierarchy

RESOURCE MANAGEMENT PRINCIPLES

The resource management principles used by QCS in the management of waste are detailed in Table 2.

Principle	Definition	Examples of waste reduction and recycling activities
The polluter pays principle	All costs associated with the management of waste should be borne by the persons who generated the waste. The costs associated with the management of waste may include the costs of minimising the amount of waste generated; containing, treating and disposing of waste; and rectifying environmental harm caused by waste.	Educating staff on the full implications of inappropriate waste activities e.g. once a co-mingled recycling bin is contaminated, the contents of the whole bin will go to landfill. This has an environmental cost as well as an added financial cost to the organisation.
The proximity principle	Waste and recovered resources should be managed as close to the source of generation as possible.	Staff need to be made aware that waste charges will be passed onto each tenant department and be encouraged to minimise waste to reduce costs.
The product stewardship principle	There is a shared responsibility between all persons who are involved in the lifecycle of a product for managing the environmental, social and economic impact of the product.	Reviewing waste management arrangements to ensure that local service providers are used where possible. (Note: This will be particularly relevant to the management of waste in regional and remote locations).

Table 2: Resource management principles

CONTINUOUS IMPROVEMENT

The cycle of continuous improvement in waste management detailed in Figure 3 illustrates how the activities proposed for this Plan should be undertaken.



Figure 3: Cycle of continuous improvement in waste management

Planned activities

An important objective of the 2020-2022 plan is to maximise QCS' contribution to achieving the state-wide strategy's waste reduction and management targets by 2024. In doing this, QCS will strive toward best practice waste management and reduction practices most relevant to its waste profile and operating environment. These improved practices will be guided by a Waste Management Policy to ensure consistent and comprehensive application of the Plan's priorities.

PHASE ONE – BASELINE DATA COLLECTION (2014-2019)

As stated in *waste overview* above, the majority of waste generated from departmental operations is derived from a non-office-based environment. Baseline data collection has therefore primarily focused on information provided by the correctional centres' principal waste contractor.

The department commenced receiving this data in late 2013/14. Complete financial year data has been collected since 2014/15.

Priority areas for baseline data collection were:

- quantifying the waste generated across the QCS' locations and by waste streams
- gaining a better understanding of the wastes generated from non-office-based activities
- gaining and understanding of the effectiveness of current programs
- development and implementation of initial waste reduction and recycling activities.

Phase One Outcomes

As a result of the Baseline Data Collection process undertaken during Phase 1, QCS has been able to understand:

- overall waste tonnage by centre and stream
- overall waste per prisoner, by centre (correctional facility)
- the Diversion Ratio of waste pertaining to occupied office spaces, showing where implemented programs have been most and/or least effective.

Waste management and resource recovery strategy has begun to extend further into facilities, including through the Capital Program, and through aligned initiatives such as the recycling of wastewater for utilisation within A/C cooling towers and the centralised laundry at Capricornia Correctional Centre.

PHASE TWO – ACTIONS TO STRENGTHEN WASTE MANAGEMENT (2020–2024)

The baseline data will be used to identify specific issues and opportunities for improvement in waste reduction and recycling, set targets and continue to strengthen QCS management strategies and actions to minimise waste and increase recycling activities.

Depending on the activities identified to improve waste reduction and recycling during baseline data collection, activities may address issues surrounding:

- a particular waste stream
- waste management at a particular location
- a particular departmental function
- a combination of these factors.

The agreed actions from Phase Two will have the shared objective of aiming towards best practice for the specific area of improvement in the context of the local operating environment. These actions will be developed with capacity issues in mind, and will take the wider public interest into account, including consultation with local stakeholders (if required) and contain the following elements:

- a clearly defined objective
- clarification on scope
- a timeline for implementation (where applicable)
- waste reduction and recycling actions
- identification of the human, financial and other resources required
- roles and responsibilities
- data collection (where applicable)
- measurement and monitoring
- reporting requirements.

It is proposed that actionable outcomes suitable for QCS sites, developed through relevant stakeholder engagement, will form an associated Implementation Plan, actionable by site, stream and/or function for respective identified initiatives.

- This engagement will begin from July 2020 with the intent of embedding QCS strategy including Corrections 2030, through reducing our environmental footprint and driving innovation more broadly in the space. Initial ideas include:
 1. Understanding current areas of good practice as a transformative measure to assist with knowledge sharing across all QCS Divisions and regions.
 2. Encouraging even greater transparency around areas of possible improvement, in alignment with QCS values including accountability and performance.
 3. Incorporating practical, measurable and reportable environmental initiatives into capital projects and associated contract arrangements.
 4. Reviewing the Office of Resource Recovery *Energy From Waste* discussion paper for opportunities and initiating discussions around what may be suitable for and achievable within correctional environments.
 5. Championing the discussion both within QCS, as well as with partner agencies and our supply chain to foster the *Queensland Waste Management and Resource Recovery Strategy*.



PHASE THREE – IMPLEMENTATION OF ACTIONS (2024-2027)

QCS will focus on continuing the implementation of actions developed during Phase Two.

Progress will be regularly monitored and reported. Lessons learnt from data collection at large office locations will be used to gradually expand this effort to smaller locations.

During the last year of this Phase, the areas for improvement will inform the Plan for 2024-2027.

Waste reduction and recycling targets

The Act requires QCS to set waste reduction and recycling targets for the waste generated by QCS in carrying out its operations.

The Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024) is an industry-led strategy that outlines the opportunities and challenges ahead for Queensland to improve its waste avoidance and recovery performance. This strategy provides a high-level vision and direction for Queensland and sets a range of state-wide targets for reducing waste generation and improving recycling rates.

UNDERSTANDING QCS' WASTE PROFILE

The objective of Phase One was to establish an accurate baseline. This baseline will now be used to identify opportunities for improvement and to set reduction targets.

WASTE GENERATION TARGET

In line with the state-wide reduction target for all general waste, QCS will strive towards best practice (as relevant in each of its locations), as a means of contributing towards a 5 percent reduction in state-wide waste generation by 2024.

For the period of this Plan, QCS' aim is to continue quantifying the amount of waste generated in order to determine an accurate baseline and to also identify actions to strengthen waste management.

Based upon the finalisation of baseline data collection, QCS will set reduction targets for the total waste stream or if appropriate, for specific components of the waste stream, as part of an Implementation Plan.

RECYCLING TARGET

In line with the state-wide target for commercial and industrial waste, QCS will strive towards best recycling practice (as relevant to individual locations) as a means of contributing towards a state-wide recycling rate of 30 percent by 2024.

Based upon the finalisation of baseline data collection, QCS will set recycling targets for components of its waste stream.

Roles and responsibilities

COMMISSIONER

The Commissioner is the 'accountable officer' and has ultimate responsibility for:

- approving the QCS' waste reduction and recycling activities and ensuring that the plan is developed and implemented
- ensuring that the department meets its reporting requirements.



ASSISTANT COMMISSIONERS, CHIEF SUPERINTENDENTS AND SUPERINTENDENTS

Senior management are responsible for ensuring that waste reduction practices are implemented and reviewed in accordance with the requirements of this and supporting plans.

INFRASTRUCTURE TECHNOLOGY AND ASSET SERVICES COMMAND

The department's Infrastructure Technology and Asset Services Command is responsible for:

- developing and implementing the waste plan
- managing, monitoring, coordinating and evaluating QCS waste management initiatives to ensure that the department contributes toward meeting waste reduction and recycling policy requirements
- reporting on activities related to waste reduction and recycling policy requirements
- providing the central contact point for expert advice and assistance to QCS staff and to supplier organisations on all aspects of waste reduction and recycling.

EMPLOYEES

Under the Queensland Government Code of Conduct, all employees are required to give effect to official public sector priorities, policies and decisions. In relation to this plan, employees are required to:

- apply waste reduction practices in accordance with this plan and whole-of-government strategy
- act to minimise or prevent waste
- participate in identifying and recommending waste reduction and recycling initiatives.

Review

QCS will review this Plan at least every three years to determine the effectiveness of the strategies and need for modification.

In line with QCS' culture of continuous improvement, the Waste Reduction and Recycling plan will be monitored to ensure its objectives are met. Any lessons learned and efficiencies achieved during the execution of the activities will provide valuable information for the development of future plans.

Reporting

In accordance with the Act, QCS will report within two months after the end of each financial year to EHP on the status of their plans.

QCS will produce an annual report in accordance with the requirements of the Act, including progress made against its strategies and initiatives.

QCS also receives reporting from the contractor engaged to remove waste from its correctional centres. A summary of the analysis, encompassing the financial years 2013-2019, has been included as **Appendix 1**.

DHPW produces an Annual Agency Report to provide an analysis of the Queensland Government's waste management performance. QCS' performance for 2018-2019, based on a sample size of six sites measuring 9,680 sqm of the agency's 27,430 sqm (35%) leased office portfolio has been included as **Appendix 2**.

References

- QCS Annual Agency Waste Report 2019 – Department of Housing and Public Works (QCS Intranet)
- [Waste Reduction and Recycling Act 2011](#)
- [Waste Reduction and Recycling Regulation 2011](#)
- [Queensland Waste Avoidance and Resource Productivity Strategy \(2014-2024\)](#)



Appendix 1 – Correctional Centre Waste Data Analysis

WASTE SUMMARY BY CENTRE (TONNES)

Correctional Centre	2013-14***	2014-15	2015-16	2016-17	2017-18	2018-19
Brisbane	16.77	498.98	642.29	286.54	285.78	349.23
Arthur Gorrie				517.11	525.32	491.60
Bris Womens	16.79	248.28	274.18	267.73	283.15	226.10
Capricornia	27.98	354.51	372.56	335.71	337.98	298.23
Maryborough	37.66	441.07	447.00	423.09	518.51	487.13
Wolston	28.39	456.03	462.60	488.72	485.01	539.36
Woodford	59.72	781.34	772.02	812.53	890.22	839.08
Townsville		377.90	423.12	439.27	587.76	489.38
Lotus Glenn		508.51	539.93	588.68	547.19	527.27
Other locations	2.89	110.72	95.50	173.97	358.24	472.51
Total Waste	190.20	3,777.34	4,029.20	4,333.35	4,819.16	4,719.89
Diversion	3.30	150.02	215.99	232.15	269.62	276.44
	1.74%	3.97%	5.36%	5.36%	5.59%	5.86%
Landfill	186.90	3,627.32	3,813.21	4,101.20	4,549.54	4,443.45
	98.26%	96.03%	94.64%	94.64%	94.41%	94.14%

WASTE SUMMARY BY STREAM (TONNES)

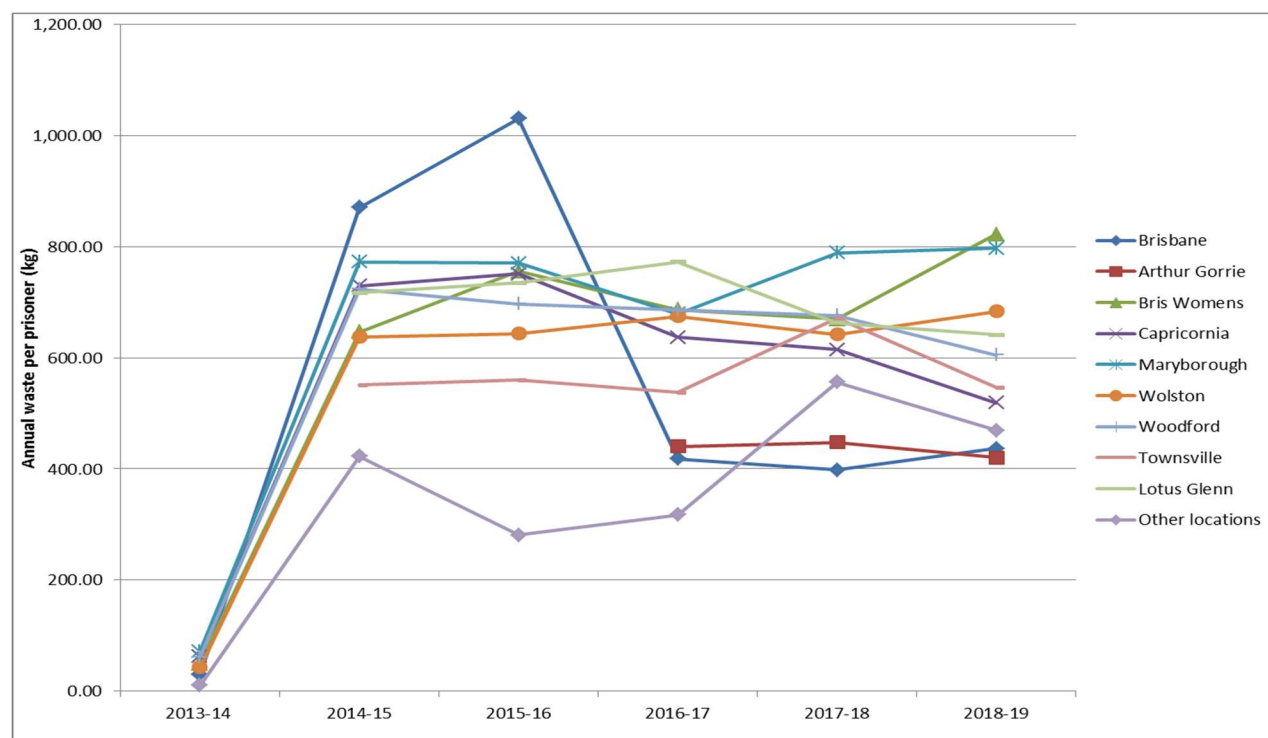
Waste Stream	2013-14***	2014-15	2015-16	2016-17	2017-18	2018-19
Cardboard	3.30	113.18	160.28	176.96	207.57	212.66
Clinical	0.00	0.00	0.00	0.65	8.05	10.79
Co-mingle	0.00	0.56	0.29	0.38	5.30	32.88
Confidential	0.00	0.81	0.99	5.88	5.47	2.60
Gen Waste	165.50	3,290.92	3,462.30	3,598.83	3,968.18	3,807.33
Gen Waste adhoc	21.40	336.40	350.90	501.75	573.30	625.34
Metal	0.00	35.47	54.44	48.90	51.29	28.29
Total Waste	190.20	3,777.34	4,029.20	4,333.35	4,819.16	4,719.89
Diversion	3.30	150.02	215.99	232.15	269.62	276.44
	1.74%	3.97%	5.36%	5.36%	5.59%	5.86%
Landfill	186.90	3,627.32	3,813.21	4,101.20	4,549.54	4,443.45
	98.26%	96.03%	94.64%	94.64%	94.41%	94.14%

*** Data capture did not begin until the end of 2013-14



WASTE SUMMARY BY CENTRE (KILOGRAMS PER PRISONER)

Correctional Centre	2013-14***	2014-15	2015-16	2016-17	2017-18	2018-19
Brisbane	29.79	870.82	1,030.96	418.31	398.02	436.54
Arthur Gorrie				440.47	447.46	420.17
Bris Womens	49.38	646.56	755.32	686.49	669.39	822.18
Capricornia	62.74	729.44	751.13	637.02	614.51	518.66
Maryborough	71.60	772.45	770.69	679.12	789.21	797.27
Wolston	42.25	637.80	643.39	675.03	642.40	683.60
Woodford	61.13	724.13	697.40	686.26	676.46	604.96
Townsville		550.87	559.68	537.66	670.96	546.79
Lotus Glenn		717.22	734.60	772.55	663.26	641.45
Other locations	9.90	422.60	280.88	317.46	556.27	469.23
Avg annual waste per prisoner (kg)	49.84	691.19	704.53	582.91	607.10	566.55
Diversion	0.86	27.45	37.77	31.23	33.97	33.18
Landfill	48.98	663.74	666.76	551.68	573.13	533.36



*** Data capture did not begin until the end of 2013-14

Appendix 2 – Agency Report Summary 2018-2019

QUEENSLAND CORRECTIVE SERVICES (QCS)

QCS occupies a total of 27,430 sqm of QGAO managed office space. Data has been collected from six sample sites covering 9,680 square meters of occupied space.

Site	Diversion ratio	Comments
BRISBANE 1 William St	49.45%	Including Ministerial and DG floors
BRISBANE State Law Building, 50 Ann St	42.49%	Good performance
WOOLLOONGABBA Gabba Towers	15.65%	Under-performing
GLADSTONE Govt Office Building	4.00%	Under-performing
TOWNSVILLE 303 Ross River Rd	42.70%	No paper service
MACKAY Verde Central	29.89%	Under-performing

QCS has declined slightly against the 2018 sample baseline, however continues to perform above the average for the public sector. The principal tenancy at State Law Building continued to perform well, noting that the organisation has shifted the majority of head office operations to 69 Ann St Brisbane since this time. Attention needs to be directed in the coming year at the Gladstone Office Building.

Service standards	Agency	Queensland Government
2018 % Diverted from Landfill	38.1%	32.8%
2019 % Diverted from Landfill	36.3%	31.8%
Annual Co-mingle Waste (Tonnes)	12.60	
Annual Paper/cardboard Waste (Tonnes)	66.12	
Annual Landfill Waste (Tonnes)	34.73	
Annual Kilograms / square metre		
• Recyclable 2018	2.11 kg	1.87 kg
• Recyclable 2019	2.04 kg	1.62 kg
• Landfill 2018	3.43 kg	3.82 kg
• Landfill 2019	3.59 kg	3.54 kg
Annual Kilograms / person		
• Recyclable 2019	25.55 kg	20.20 kg
• Landfill 2019	44.84 kg	44.31 kg



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