

**DAF Waste Reduction and Recycling Plan**  
2021-2024

Prepared by: Corporate, Finance and Asset Management, Department of Agriculture and Fisheries.

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# Foreword

The DAF Reduction and Recycling Plan 2021-2024 (the Plan) outlines the actions the department will take over the next three years to contribute to meeting the state-wide targets by 2024. Those actions will be directed towards reducing unnecessary waste, recycling unavoidable waste, and better use of our finite resources to achieve a leaner, healthier environmental footprint.

There are two basic principles of the plan. The first is that all staff should avoid or reduce the production of waste products and secondly, when this is not possible, reuse or recycle unavoidable waste. These are principles we can all commit to and make a difference in our own workplaces.

Through support and education, the plan follows the principles of the waste management hierarchy in identifying and implementing practices which will effectively reduce the impacts on the environment of the department's operations.

The plan is also an update of the 2018-2021 plan which focused on continuous improvement, review and refinement of waste reduction and recycling activities. What we are learning from the disruption to old working habits from COVID-19 is that more staff working from home has resulted in a high take up of paper-lite activity, significantly reducing the paper printed in the office as staff now find printing often unnecessary.

The plan has been developed to support the *Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024)*. The reporting component of the plan will help to build a better picture of waste management and resource recovery practices across the department. Through the life of the plan, DAF will not only reduce our negative impact on the environment, but also aim to secure financial savings through more effective use and reuse of resources.

**Bob Gee**  
**Director-General**  
**Department of Agriculture and Fisheries**

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## Introduction

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

The Plan sets the overall direction for waste management within the department.

An overview of the department, the functions performed and the types of waste generated as a result of the department's activities, are provided in Sections 1 and 2 of the plan. Section 4 details the approach to meeting waste management responsibilities.

The primary focus of the 2021-2024 Plan will be to improve the recycling of waste and reporting on disposal methods for regulated and trackable waste. The Plan is also updated to reflect the impact of COVID-19 on DAF's recycling and the improvement in the scope of data collected.

Where the department is not able to track waste, DAF can ensure it is disposed of in an appropriate manner.

In line with DAF's culture of continuous improvement, particularly in respect to office waste, the success of the department's Waste Reduction and Recycling Plan will be monitored with the annual reporting to the Department of Environment and Science.

# 1. Overview of the organisation

The Department of Agriculture and Fisheries (DAF) creates value for Queensland by connecting industries, the community and government to grow the economy and safeguard the natural environment. These activities ensure Queensland is a world-leader in providing high-quality, safe and sustainably produced food and fibre.

Agriculture works with industry associations and all levels of government to provide operating conditions and services that enable businesses to develop the workforce, manage risks and build resilience, and improve market supply chains. It also manages the delivery of regional assistance to industry. Within Agriculture, Agri-Science Queensland undertakes research, development, and extension to lift the productivity of Queensland's agricultural businesses.

Fisheries and Forestry manages the sustainability and allocation of fisheries and forestry resources for all Queenslanders. This is vital to create the basis for profitable businesses and enjoyable recreational fishing experiences for locals and visitors.

Biosecurity Queensland leads the Government's efforts to prevent, respond to and recover from pests and diseases threatening agricultural prosperity, the environment, social amenity and human health. This is achieved by maintaining access to markets, protecting animal welfare and reducing the risk of contamination from agricultural chemicals.

The department's efforts and those of the sector contribute to the Government's objective to protect the environment.

## 2. What wastes are generated from DAF's activities?

DAF employs just over 2,100 full time equivalents (Service Delivery Statements 2021-22 State Budget) in areas including policy development, leading-edge science, Biosecurity Queensland, fisheries and forestry management, trade and export at approximately 105 locations in Queensland with around a third of the workforce (by headcount) working from 41 George Street, and 1 William Street, Brisbane.

### Office vs non-office based activities

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

### Waste generated from office-based activities

The majority of the departments' staff members perform office-based functions. The total quantity and exact composition of office waste is based on data collected by the Department of Energy and Public Works (EPW) sampled at the following sites they manage on behalf of Government:

- Brisbane - 1 William Street
- Brisbane - 41 George Street
- Dutton Park - Eco Sciences Precinct, Boggo Road,
- Mackay – Government Office Building
- Dalby – Courthouse / Government Office Building.
- Mareeba – Peters Street Complex
- Berrinba – 145 Wayne Goss Drive

EPW is responsible for the cleaning at these sites and requires the cleaners to report on the recycling achieved recorded as a proportion of the total waste skips for each building. Approximately half of DAF's staff occupy these sites, with the remainder in smaller offices or research facilities. EPW has been increasing the scope over time of the data they collect by increasing the number of sites where data is recorded. DAF can expect that more leased accommodation sites will become in scope of the data collected by EPW.

DAF has investigated the possibility of expanding the scope of DAF waste data to larger sites where the cleaners are not managed by EPW and are identified as Professional Contractors, engaged using DAF Procurement and contract management processes and managed locally. This is proposed as a focus for the 2021-24 Plan.

## **Data Sources**

Waste data for government owned (and a small number of leased) office buildings, is collected through the QBuild waste service contractor, Suez. Approximately 40 QGAO managed buildings access waste services through the QBuild account.

Where Government Owned Buildings are not part of the QBuild Suez contract, or where QGAO leases privately owned office accommodation occupied by government agencies (just over 500 buildings), accessing data can be more challenging, as waste services are usually provided in one of two ways:

- the building owners appoint their own private contractors (as is the case with all the major leased buildings, including 41 George Street); or
- individual agencies directly contract with QBuild to arrange their premises' cleaning and waste removal services.

In many regional areas, state government office accommodation sites, both owned and leased, are serviced by Local Government waste collections, billed through rate notices.

**2020-21 FY DAF Statistics - based on DAF share of Total Leasable Area of the 'All Buildings Sample Set'**

<b>DAF</b>	<b>Agency</b>	<b>Whole of Government</b>
2020-21 Diverted from Landfill (12 months: July 20 to June 21)	20.9%	27.62%
2019-20 Diverted from Landfill (July 2019 to Feb 2020)	27.4%	30.65%
Annual Co-mingle Waste (Tonnes)	10.12	216.54
Annual Paper/cardboard Waste (Tonnes)	13.82	328.21
Annual Confidential (Tonnes)	5.4	109.48
Annual Landfill Waste (Tonnes)	110.76	1714.94
Annual Total Waste (Tonnes)	140.09	2369.27
<b>Kilograms / square metre</b>		
Recyclable 2021 (12 months: July 20 to June 21)	1.05	1.11
Recyclable 2020 (July 19 to February 20)	1.07	1.04
Landfill 2021 (12 months: July 20 to June 21)	3.98	2.9
Landfill 2020 (July 19 to February 20)	2.84	2.36
<b>Kilograms / person</b>		
Recyclable 2021	13.19	13.84
Landfill 2021	49.80	36.27

*Notes –*

- For 2019-20 only, data was collected from July 2019 to February 2020, not the full financial year due to the impact of COVID-19. Agency Statistics are 'representative' based on each Agency's 'Sample Buildings Subset'.
- Statistics do not represent an agency's total office waste volumes or weights.

DAF's recycling sample data can be influenced by the following factors:

- DAF's communications efforts in encouraging staff to use recycling bins;



- Directions to staff not to have individual waste bins at their workstations;
- The willingness of staff to participate by putting the waste in the correct bins;
- The willingness of cleaners to collect the recycling diligently and effectively, managing contamination at the collection point, and recording the recycling data for EPW;
- The sharing of data with the other occupants in the site;
- The availability of recycling at the local council. Some regional sites do not have an alternative to landfill; and
- Site relocations - if DAF staff move to new site with different cleaners, changed floor plans and different tenants sharing the building, this can impact on the recycling data. For example, when DAF moved from being sole occupant at 80 Ann Street to shared tenant at 41 George Street, the recorded recycling rate fell. In 2021, DAF vacated two floors of 41 George Street and a private sector company moved in with a higher density of occupation.

In 2020-21, DAF does not appear to be achieving the same level of recycling as the Whole-of-Government sample based on these statistics collected. However, these figures need to be considered in the following context:

- A large proportion of the change appears to be from a change in the contractor at 41 George Street;
- The estimated waste is based on a standard weight per skip collected;
- Due to COVID-19, the occupancy of 41 George Street was around 30-40% each day but the measured waste has not dropped. This appears to be due to the skips being collected at a lower weight (not measured by the contractor);
- The level of paper printed has dropped significantly as staff work from home and when they return to 41 George they are printing less. The contract with Ricoh shows that printing is now 63 per cent of the level it was prior to COVID-19 (2019-20 compared to 2020-21). The Diversion percentage from landfill drops where recycling waste is avoided;
- Recycling is also not measured when staff who would previously use the recycling bins at work now return containers for a refund of the deposit; and
- The tenants at 41 George Street have changed with a high occupancy on the floors vacated by DAF. DAF's contribution to recycling efforts in shared buildings cannot be separated and are allocated by EPW between tenants.

### **COVID19 pandemic impacts on 2020-21 reporting**

The 2020-21 reporting year for waste management in the Office Waste category has been affected by the significant changes in working styles resulting from the COVID19 pandemic. DAF staff, particularly in the Brisbane CBD now work from the office 'more often than not'. With leave taken into account, occupancy of 41 George Street can be less than half in any day.

In consultation with DES, it has been agreed that full year waste comparisons with 2020-21 will not be undertaken.

### **Waste generated from non-office based activities**

As a result of the diverse nature of the department's business activities and the legislative requirements, a diversity of clinical and related waste, trackable waste and other regulated waste is generated.

Waste categories include:

- Animal waste
- Asbestos
- Chemicals
- Discarded sharps
- Grease trap waste and discarded oil
- Laboratory waste
- Sewage
- Cardboard

- Toner cartridges
- Metal

### **Waste management achievements to date**

DAF has implemented a number of initiatives to improve the management of waste generated by its operations including:

- recycling wastepaper products where feasible, and reducing paper and toner cartridge consumption by using double-sided and grey scale printer default settings;
- introduction of 'follow-me' printing on all DAF floors at 41 George Street;
- eDOCS which continues to reduce the need for paper and physical file storage;
- where possible embracing the paper-lite concept at meetings by using Teams and sharing documents on the screen so they do not have to be printed for the meeting;
- continuing to use 'Tadpole' as the departments' electronic timesheet;
- implementation of a Clear Desk procedure to leave desks clear at the end of the day to promote paper-lite, cleaning and improved security of documents.

At our DAF research facilities, DAF takes a 'good management' approach of continuous improvement to 'reduce, reuse, recycle'. There are numerous individual site level initiatives, recycle bins, sending waste oil to recycling, disposing excess chemicals, and composting of plant waste.

The plan is designed to build on these initiatives and to integrate sound waste management practices into day-to-day operations.

## **3. Out of Scope**

The below highlights areas that are considered out of scope for this plan:

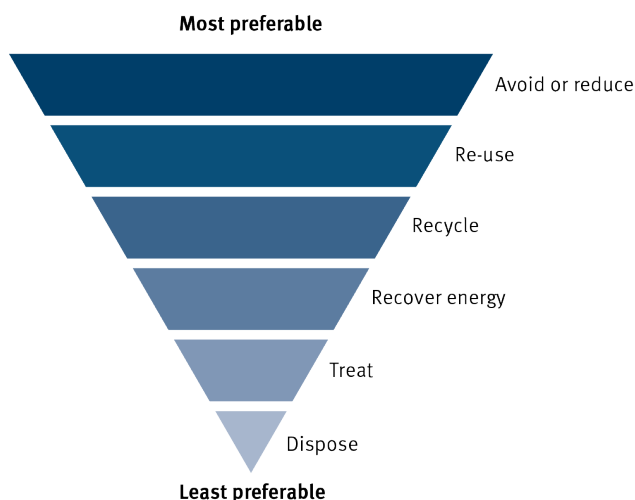
- Smaller offices and owned research facilities in rural/remote locations where data on recycling activities may not be available or it is difficult to obtain reliable data;
- As staff increasingly work from home or remotely, the waste generated outside of DAF sites by staff while at work cannot be determined;
- DAF's greenhouse gas emissions will be comprehensively addressed in the DAF Climate Action strategic program of works.

## **4. DAF's approach to Waste Management**

DAF's approach to waste management is guided by the principles set out below.

### **The waste management hierarchy**

The waste and resource management hierarchy (Figure 1) sets the order of preference for options to manage waste—from avoiding, to re-using, recovering, treating and disposing of waste.



**Figure 1: The waste and resource management hierarchy.**

Where avoidance is not possible, options should be investigated for the reuse, 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.

The table below provides information on how DAF will use the hierarchy in managing its waste.

Management Option	Definition	Examples of activities
<b>Avoid</b>	Avoid unnecessary resource consumption.	Avoid the generation of paper waste by encouraging the use of electronic copies.
<b>Reduce</b>	Reduce waste generation and disposal.	Ensure all printers are set to double-sided printing as a default. Printing in black ink reduces the turnover of colour cartridges. Follow-me printing to reduce unnecessary printing.
<b>Reuse</b>	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. Reuse monitors and other IT accessories.
<b>Recycle</b>	Turning waste resources into similar or different products.	Increase staff awareness in order to maximise co-mingled recycling and avoid contamination of recycling bins.
<b>Disposal</b>	Dispose of waste only if there is no viable alternative.	DAF will endeavour to ensure that waste will only be disposed of at landfill facilities that are operated in accordance with prescribed legislation.  Bury animal carcasses on site at research facilities.

### Resource management principles

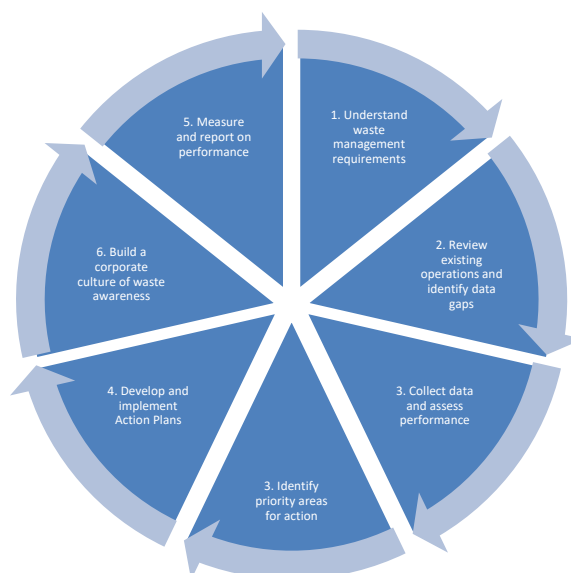
The following principles guide the decisions DAF makes in the management of its waste.

	Definition	Examples of activities that could be included in action plans
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	Educate staff on the full implications of inappropriate waste activities – for example once a co-mingled recycling bin is contaminated, the contents of the whole bin will go to landfill. This has an environmental and financial cost to the

	amount of waste generated; containing, treating and disposing of waste; and rectifying environmental harm caused by waste.	department.
The proximity principle	Waste and recovered resources should be managed as close to the source of generation as possible.	Review waste management arrangements to ensure that we use local service providers where possible.
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	Review procurement procedures.

### Continuous Improvement

The diagram below illustrates how the activities that we propose for the plan (as described in Section 6) will align with a cycle of continuous improvement.



**Figure 2: Cycle of continuous improvement in waste management**

DAF will address its waste reduction and recycling responsibilities through ongoing assessment of its activities and implementing industry best-practice where possible by:

- facilitating the on-going collection of baseline data at DAF’s major leased offices by EPW;
- measuring and monitoring the success of the waste plan;
- promoting waste reduction and recycling awareness; and
- encouraging, collecting and consolidating ideas for improved waste management and waste reduction.

DAF will strive for continuous improvement and will review and refine waste reduction and recycling activities where possible.

## 5. Long-term Objectives

Where possible, DAF will continue to identify the priority wastes<sup>1</sup> generated from its operations, and in particular the wastes identified in the state-wide action plan that have high disposal impacts. These wastes are:

- plastic packaging, and
- fluorescent lights (as part of the complementary national product stewardship measures).

In addition to these priorities, DAF's approach over the period of the plan will be to:

- continue to identify and monitor the department's waste profile
- adopt waste management and reduction practices, where possible
- collaborate with other departments and share learnings from DAF's waste initiatives
- identify procurement opportunities to increase DAF's recycling and data collection.

Since 2015, DAF has implemented a nine-year timeframe for realising the state-wide targets provides with three agency plans each with a three-year timeframe. Broadly speaking, the three plans have taken the following approaches:

- DAF Waste Reduction and Recycling Plan: 2015-2018 (completed) – baseline data collection, development and implementation of initial waste reduction and recycling activities
- DAF Waste Reduction and Recycling Plan: 2018-2021 – (completed) continuous improvement, review and refinement of waste reduction and recycling activities
- DAF Waste Reduction and Recycling Plan: 2021-2024 – further improvement and consolidation.

Each plan is building on the work of the previous one.

## 6. Activities planned for 2021 to 2024

The guiding principle for the plan will be to continue the journey necessary to maximise DAF's contribution to achieving the state-wide Strategy's waste reduction and management targets by 2024. In doing so, DAF will consider best practice waste management and reduction principles most relevant to DAF's waste profile and operating environment.

Throughout the period of this Plan, DAF's focus will be on larger sites where recycling is possible and sites where the sample data is below the level recorded by the whole-of-Government.

DAF will continue to identify the types of regulated and other non-office-based waste generated by DAF's activities and report annually on progress.

### Actions to strengthen the management of waste reduction and recycling activities

Depending on the types of waste generated at specific locations identified in this plan improvement opportunities may address issues surrounding:

- a particular waste stream, for example office waste
- waste management education, for example, educating staff on the appropriate use of their recycling facilities
- a combination of these factors.
- Progress will be regularly monitored and reported in section 9 below.

There will be two focus areas for DAF in the 2021-24 Plan.

Firstly, DAF will continue to monitor quantitative sample data for office waste from sites such as 41 George Street, Brisbane to identify specific issues and opportunities for improvement, set targets and continue to strengthen our management strategies and action to minimise waste and increase recycling activities. At tenancy meetings, DAF will advocate for building-wide improvement in the measurement of the waste data by the owner's contractor, such as weighing of the skips. Staff will also be reminded of the need to recycle and use the bins provided effectively to avoid contamination of the recycling bins and increase the level of waste diverted from landfill.

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<sup>1</sup> Priority waste is defined in the state-wide Strategy as wastes "with high disposal impacts (such as toxicity or greenhouse gas emissions), social impacts (such as community concern or amenity) or whose recovery would represent resource savings or business opportunities".

Secondly, DAF will work through, coordinating with the business groups, the possibility of expanding the scope of DAF waste data to larger sites where the cleaners are not managed by EPW and are identified as Professional Contractors. engaged using DAF Procurement and contract management processes and managed locally.

## 7. Waste reduction and recycling targets

The *Waste Reduction and Recycling Act (2011)* requires DAF to set waste reduction and recycling targets for the waste generated by the department in carrying out its activities.

### Understanding our waste profile

For the period of the plan, the department's aim is to continue to quantify the amount of waste generated in order to determine a more accurate sample process.

### Waste generation target

In line with the reduction target for all general waste, DAF will strive towards sample measures better than the whole-of-Government results as a means of contributing towards a five per cent reduction in state-wide waste generation by 2024.

### Recycling target

The department has set a recycling target for office waste to exceed the whole-of-Government measure, currently 27.6% of its waste stream.

The Director-General has endorsed the contents of the plan and agreed with the overall direction of waste reduction and recycling activities within the department.

## 8. Roles and responsibilities

- The plan will be coordinated through Corporate, Finance and Asset Management;
- DAF has an established network of site contacts across the State.
- The Deputy Director-General, Corporate is a sponsor for waste reduction and recycling activities and setting waste and recycling targets;
- The Director-General approves the plan. It will then be uploaded to the department's website and intranet site and a progress report prepared annually for the Department of Environment and Science.

## 9. Reporting

DAF will review the plan at three-year intervals and produce annual reports on waste reduction and recycling in accordance with the requirements of the relevant legislation.

Reporting will include progress made against the activities set out in the plan and will include:

- the types and amounts of waste generated, recycled or disposed of by the department in carrying out its activities;
- any action taken to reduce the amounts of waste generated or re-used or recycled;
- the department's contribution towards achieving the goals and targets of the State's Waste Management Strategy.