

EHP Waste Reduction and Recycling Plan

2015-2018

Prepared by: Governance and Strategy, Corporate Services, Department of Environment and Heritage Protection

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Foreword

The responsibility all Queenslanders share for addressing waste generation and its associated impacts in our state is reflected in the title of the Queensland Waste Strategy: Waste – Everyone’s Responsibility: Queensland Waste Avoidance and Resource Productivity Strategy (2014-2024).

As the agency responsible for the Strategy and for administering the Waste Reduction and Recycling Act 2011, Environment and Heritage Protection recognises the important leadership role we play in waste avoidance and management. We are therefore committed to maximising our contribution to the state-wide targets contained in the Strategy.

The EHP Waste Plan 2015-2018 outlines the actions we 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, innovatively managing unavoidable waste, and ultimately to achieving a cleaner, healthier environment and better use of our finite resources.

Jon Black
Director-General
Department of Environment and Heritage Protection

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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. Each of these plans 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 Strategy).

The Department of Environment and Heritage Protection Plan for Waste Reduction and Recycling (the Plan) sets the overall direction for waste management within the department for the period 1 July 2015 to 30 June 2018.

An overview of our organisation, the functions we perform and the wastes that are generated as a result of the department's activities, are provided in sections 1 and 2 of this Plan.

Sections 0 and 5 describe how this Plan will be implemented. The primary focus of the 2015-2018 Plan will be to develop a comprehensive understanding of the types and quantities of waste generated as a result of EHP's activities. With this information as a baseline, action plans will be developed to improve the ways in which the department manages its waste. These plans will be tailored to specific waste streams, locations or functions. Action plans will be progressively developed and implemented during the second half of the implementation period of this Plan. The lessons learned and efficiencies achieved during the implementation period of this Plan will feed into the development of the 2018-2021 Plan.

In line with the EHP culture of continuous improvement, the success of the department's Waste Reduction and Recycling Plan will be monitored to ensure its objectives are met.

1 Overview of our organisation

EHP is responsible for managing the health of the environment and protecting Queensland's unique ecosystems, including its landscapes and waterways, as well as its native plants, animals and biodiversity.

The department administers a range of environmental regulations and laws, providing timely approval authorities and ensuring compliance with them.

In addition to Queensland's natural environment, the department is also responsible for identifying and conserving the state's built heritage places. These places contribute to our identity and help define who we are as Queenslanders. They include buildings, structures, cemeteries, archaeological sites, gardens, urban precincts and natural and landscape features.

The department's key activities include:

- conservation and sustainability services, including the implementation of programs to conserve and enhance the health of the state's natural environment
- environmental services and regulation, including the facilitation of project approvals and industry compliance
- environmental policy and planning, including developing and reforming legislation, plans and programs to support front-line environmental service delivery, manage our ecosystems, waste agenda and our ongoing role in climate change adaptation.

2 What wastes are generated from EHP activities?

EHP has 1,100 staff members working in 39 locations across the state. The majority (approximately 63%) of our work force is located in 400 George Street in Brisbane.

Office vs non-office based activities

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

The rationale behind this distinction is the underlying assumption that, in general, office based functions will generate a generic waste stream irrespective of the geographical location or the specific role performed¹.

On the other hand, our non-office based activities are unique in nature and therefore generate distinctive waste streams.

Waste generated from office based activities

The majority of the department's staff members perform office based functions. At the time of the release of this Plan, the total quantity and exact composition of office waste is unknown. Gaining an understanding of this waste profile has been identified as a priority activity.

Preliminary investigations into the office based waste stream indicate that it is very likely to be consistent with the profile of waste generated in a typical office environment, as represented in Figure 1.

¹ For example, an administrative officer in Toowoomba is very likely to produce the same types of office waste products as a project officer in Mackay.

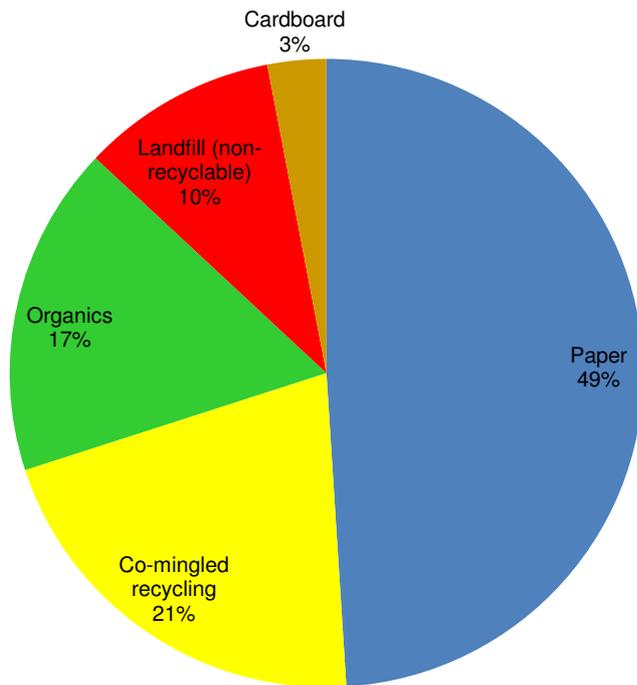


Figure 1: Components of a typical office based waste stream²

Given that nearly 63% of our staff are located in our head office, 400 George Street in Brisbane, waste management in this building will be a priority for this Plan.

Aggregated data is available for the waste generated by all the office tenants in 400 George Street, but building management does not collect waste data for individual tenants. Baseline data collection will continue for 400 George Street, but it is envisaged that an in-depth waste audit would be required to improve the granularity of this data. More detail on baseline data collection is provided in section 5 and Appendix A.

EHP also has relatively large office based operations in Cairns, Townsville, Toowoomba, Emerald and Rockhampton.

Waste generated from non-office based activities

The non-office based activities performed by EHP include:

- wildlife management
- protection of threatened species
- operations of the koala hospital in Moggill
- incident response
- heritage protection activities.

Preliminary investigations indicate that each of these activities has a fairly unique waste profile. The collection of baseline data will address the current situation, where limited information is available on the types and volumes of wastes being generated. As outlined in section 5 below, investigations will be undertaken during the first phase of this Plan to determine:

- the types of wastes generated by the activities
- potential methods to capture the volumes of wastes generated
- the boundaries of responsibility for waste generated by functions delivered in partnership with other agencies or institutions
- existing waste management arrangements and current practices.

² Source: Public Sector Environmental Management Better Practice Guide, <http://www.anao.gov.au/html/Files/BPG%20HTML/EnvironmentalBPG/index.html>

3 EHP’s approach to waste management

As the agency responsible for the administration of the *Waste Reduction and Recycling Act 2011*, EHP’s vision is to become a leader in the Queensland public sector in avoiding unnecessary consumption and waste generation, adopting innovative resource recovery approaches, and managing all products and materials as valuable and finite resources.

Our approach to waste management is guided by the principles set out below.

The waste management hierarchy

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

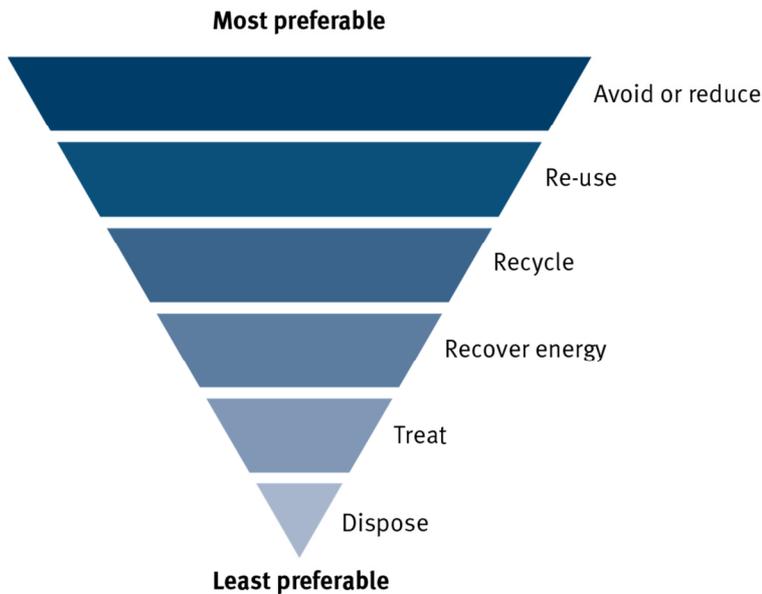


Figure 2: The waste and resource management hierarchy

The hierarchy is a tool to help decision makers prioritise waste management activities. Where avoidance is not possible, options should be investigated for the reuse, and then the recycling of waste materials. As the next available option, waste could be used as a source of energy. Disposal of waste should be the last resort.

The table below provides more detail on how EHP will use the hierarchy in managing its waste:

Management option	Definition	Examples of activities that could be included in action plans ³
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.
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.
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.

³ Note that these are generic examples. As outlined in section 5 of this plan, specific action plans will only be developed once sufficient baseline data has been collected.

Management option	Definition	Examples of activities that could be included in action plans
Disposal	Dispose of waste only if there is no viable alternative.	EHP will ensure that our waste will only be disposed of at landfill facilities that are operated in accordance with prescribed legislation.

Resource management principles

The following principles will guide the decisions we make in the management of our waste.

Principle	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 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.	Reviewing waste management arrangements to ensure that we use local service providers where possible. (Note: This will be particularly relevant to the management of waste in regional and remote locations.)
The product stewardship principle	There is a shared responsibility between all persons who are involved in the life cycle of a product for managing the environmental, social and economic impact of the product.	Reviewing procurement procedures.

Continuous improvement

The diagram below illustrates how the activities that we propose for this plan (as described in section 5) will align with a cycle of continuous improvement.



Figure 3: Cycle of continuous improvement in waste management

Establishment of a Waste Reduction and Recycling Network

EHP will establish a working group to address waste reduction and recycling. The department's Governance and Strategy (G&S) branch will take a leading role in establishing this group. A staff member from Business and Professional Services (BPS) will chair the working group.

The working group will consist of representatives from each division within the department, as nominated by Executive Management Team (EMT) members.

The members of the working group will:

- facilitate baseline data collection
- assist in the development of action plans
- promote waste awareness
- collect and consolidate ideas for improved waste management
- measure the success of waste action plans.

Apart from divisional representation, each location or floor will be required to nominate a local waste champion to facilitate the implementation of local action plans.

4 Long-term objectives

It is recognised that, as the agency responsible for managing the health of Queensland’s environment, EHP’s waste reduction and recycling practices reflect that responsibility. EHP embraces leadership and innovative approaches to waste reduction and recycling.

Waste—Everyone’s responsibility: Queensland Waste Avoidance and Resource Productivity Strategy (2014–2024) (the State Strategy) sets a range of targets to be achieved by 2024. EHP will contribute to the following strategy targets:

- General waste production will be reduced by 5% (from 2012-13 levels).
- 55% of commercial and industrial waste generated in Queensland will be recycled.

The State Strategy furthermore states that the Queensland Government will work with industry and the community to identify problem or priority wastes⁴ and determine the most appropriate management option for each waste stream. Action plans developed under the State Strategy will include methods for the improved management of Queensland’s priority wastes. EHP will identify the priority wastes generated from its operations and will address the management of these wastes in accordance with state-wide action plans once these plans have been developed.⁵

EHP’s approach over the period of this Plan will be to contribute to the 2024 state-wide targets by:

- clearly identifying and monitoring the department’s waste profile
- adopting waste management and reduction practices that maximise EHP’s contribution to achieving the State targets, within the context of the wider public interest
- where appropriate, communicating the achievements so that others can draw upon our learnings to create a model of leadership.

The nine-year timeframe for realising the state-wide targets provides for a trio of agency plans, each with a three year timeframe. Broadly speaking, it is envisaged that those three plans will take the following approaches:

Plan: 2015-2018 – baseline data collection, development and implementation of initial action plans.

Plan: 2018-2021 – continuous improvement, review and refinement of action plans.

Plan: 2021-2024 – further improvement and consolidation.

These agency plans will be integrated, such that each of the latter plans will build on the work undertaken as part of the preceding plan.

5 Activities planned for July 2015 to June 2018

As noted in section 0, the guiding principle for the 2015-2018 Plan will be to commence the journey necessary to maximise EHP’s contribution to achieving the state-wide Strategy’s waste reduction and management targets by 2024. In doing so, the agency will take account of those best practice waste management and reduction principles most relevant to EHP’s waste profile and operating environment.

Activities for the three year implementation period of the 2015-2018 Plan will be undertaken in three phases.

Phase One – Baseline data collection

The saying “you can’t manage what you don’t measure” holds very true for waste management. Before taking specific actions, EHP will need a firmer grasp of the types and quantities of waste generated from its operations. Furthermore, there is a need to investigate and document local waste management practices at the department’s various sites across the state.

The focus of the initial 6 to 12 months will therefore be on collecting baseline data. This information will enable the department to develop a robust baseline for future performance. It will also allow EHP to focus on waste management efforts that will realise the greatest benefit.

⁴ Priority waste is defined in the 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”.

⁵ At the time of publication of this document, specific state wide Action Plans for priority wastes had not been developed.

Priority areas for baseline data collection are:

- quantifying the waste generated in EHP's large office locations
- gaining a better understanding of the wastes generated from non-office based activities.

By focusing on the seven locations with 20 or more staff members, this Plan will address the waste management behaviour of nearly 80% of the department's staff⁶.

While a brief description of the priority activities is given below, more information on baseline data collection is provided in Appendix A.

The collection of quantitative waste data at EHP's head office

Approximately 63% of EHP staff members are based in 400 George Street in Brisbane, a multi-tenanted building managed by a private company⁷.

Aggregate data on the waste generated in the whole building is supplied by the waste service provider on a monthly basis. This data can, however, not be used to accurately determine the waste generated from EHP's activities in the building. Measures will therefore be introduced to measure waste generation on the floors occupied by EHP.

More detail on the proposed resources and methodology for data collection is provided in Appendix A.

Investigations into the waste generated from EHP's non-office based activities

Limited information is available on the types and volumes of wastes being generated from non-office based activities.

Investigations will be undertaken to determine the types of wastes generated and to identify potential methods to capture the volumes of wastes generated.

The boundaries of responsibility for waste generated by functions delivered in partnership with other agencies or institutions, as well as existing waste management arrangements and current practices, will also be documented.

Based upon the outcomes of these investigations, nominations may be sought from the operational units delivering these activities to participate in the department's waste reduction and recycling network.

Investigations into the waste generated at other large EHP office locations

The department currently has several relatively large regional offices. The following locations accommodate 20 or more EHP staff members:

- William McCormack Place, Cairns
- Townsville Office (Cape Pallarenda Rd)
- South Western Regional Office, Toowoomba
- Emerald Government Office
- Cairns Port Authority Building
- State Government Building, Rockhampton

Investigations will be made into local waste profiles, waste management facilities, staff awareness and engagement, and contractual service arrangements.

Nominated local contacts will represent each of these locations on the department's waste reduction and recycling network.

⁶ It is envisaged that once measures are in place for data collection at the department's larger office locations, the effort will be expanded to all other locations. This can realistically only be incorporated into Phase Three of the delivery of this Plan.

⁷ The tenancy arrangement in place at each of the department's locations is relevant, as this determines to a very large extent the level of control the department may have over waste management functions. Some of the department's other operations are located in state government-owned buildings (where EHP is a tenant in a building managed by the Department of Housing and Public Works) and others still are in buildings owned by the department.

Phase Two – Development of action plans

During the next three to six months the baseline data will be used to identify specific issues and opportunities for improvement, set targets and develop specific action plans.

Depending on the improvement opportunities identified during baseline data collection, action plans may be developed to address issues surrounding:

- a particular waste stream (e.g. an action plan for dealing with printing paper waste)
- waste management at a particular location (e.g. an action plan educating staff at location x on the appropriate use of their recycling facilities)
- a particular departmental function (e.g. an action plan for helping team x or unit y rethink the wastes produced from their activities and how this can be better managed)
- a combination of these factors.

Action plans will have the shared objective of aiming towards best practice for the specific area of improvement, in the context of the local operating environment.

Action plans will be developed in consultation with local stakeholders and will contain:

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

Action plans will be submitted to relevant EMT members for approval and the allocation of required resources.

Phase Three – Implementation of action plans

During the remainder of the three year period EHP will focus on implementing the action plan/s developed during Phase Two.

Progress will be regularly monitored (as defined in individual action plans) and will be reported upon as discussed in the reporting section below.

Lessons learnt from data collection at large office locations (see Phase One above) will be used to gradually expand this effort to smaller locations.

During the last year of this Plan, EHP will define areas for improvement that will be incorporated in EHP's 2018-2021 waste plan.

6 Waste reduction and recycling targets

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

Understanding our waste profile

As mentioned in section 5, quantifiable targets can only be set once the agency has a clear understanding of its waste profile. The objective of the first phase of the implementation of this Plan is to establish a robust baseline. This baseline will be used to identify opportunities for improvement and to set targets.

Quantitative targets will therefore only be set towards the end of the implementation period of this Plan. Once defined, these targets will be submitted to EHP's Executive Management Team (EMT) for approval and then published on the department's website.

It is envisaged that differential targets may be set for metropolitan and regional locations.

Waste generation target

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

For the period of this Plan, the department's aim is to quantify the amount of waste generated in order to determine an accurate baseline.

Based upon the findings of baseline data collection, the department will set reduction targets for the total waste stream or, if appropriate, for specific components of the waste stream. For example, there may be a target to reduce paper waste generated at a specific location by a certain percentage.

Recycling target

In line with the state-wide target for commercial and industrial waste, EHP will strive towards best recycling practice (as relevant to individual locations) as a means of contributing towards a state-wide recycling rate of 55% in the commercial and industrial waste stream by 2024.

Based upon the findings of baseline data collection, the department will set recycling targets for components of its waste stream. For example, there may be a target to achieve a specific comingled recycling rate in metropolitan locations.

7 Endorsement and resource allocation

The members of EHP's Executive Management Team (EMT) have endorsed the contents of this plan and agree with the overall direction of waste reduction and recycling activities within the department.

Action plans will be submitted to EMT for approval and the allocation of resources.

8 Roles and responsibilities

As mentioned in section 3, EHP will establish a working group to address waste reduction and recycling. The department's Governance and Strategy (G&S) branch will take a leading role in establishing this group. A staff member from Business and Professional Services (BPS) will chair the working group.

The working group will consist of representatives from each division within the department, as nominated by Executive Management Team (EMT) members.

The members of the working group will:

- facilitate baseline data collection
- assist in the development of action plans
- promote waste awareness
- collect and consolidate ideas for improved waste management
- measure the success of waste action plans.

Apart from divisional representation, each location or floor will be required to nominate a local waste champion.

The roles and responsibilities for the implementation of action plans will be clearly outlined in each plan.

9 Reporting

EHP will produce an annual report on waste reduction and recycling in accordance with the requirements of the Act.

Reporting will include progress made against the targets and objectives set out in this Plan.

Appendix A – Baseline data collection

As discussed in the main body of this document, EHP currently has a limited understanding of the types and quantities of waste generated from its operations.

It is essential that a baseline be established before effective action plans to manage EHP waste can be developed and implemented. This baseline will provide the means to analyse how waste is being generated and managed. It will also highlight practices that have potential for improvement and can help with the identification of potential cost savings.

Action plans with realistic outcomes cannot be effectively developed and sustainably implemented if the current situation is not identified and documented for future monitoring and measurement.

Crucial to the success of this data collection exercise, will be the identification of appropriate staff members with the knowledge of the operational practices within their work unit or physical location. These local contacts will be the starting point for the development of a directory of stakeholders that may need to be consulted for further information. These stakeholders may be external to the department and could include building management operators and waste contractors. EMT members will be asked to nominate appropriate staff members in their respective work units and/or locations to be this initial contact point.

Information will be collected on the various aspects of the department's waste profile.

Waste generation

- Identification of the types of wastes generated as a result of office-based activities, with an initial focus on the department's larger office operations.
- Identification of the types of wastes generated from all non-office based activities performed by the department. This will include a review of current management practices and arrangements that are already in place for managing current and potential waste streams.
- Verification of the current level of staff awareness on appropriate waste management practices specific to their location.

On-site waste handling

- Signage for waste segregation and storage.
- Waste receptacle types, numbers and accessibility.
- Current storage and disposal practices, including risks to the environment or human health i.e. vermin or odour control.

Waste recycling and disposal

- Confirmation that contract arrangements are in place to ensure local service providers are handling, transporting, recycling and disposing waste appropriately.
- Research into locally available options for recycling in order to identify opportunities for improving the range of waste products that could be feasibly diverted from landfill.

Other considerations

A number of the department's operations are based in multi-tenanted buildings. In general, waste is managed for the whole building. It can therefore be difficult to ascertain an individual tenant's contribution to the waste generated in the building. For each multi-tenanted location, a decision will have to be made on the appropriate determination of the department's proportion of the total amount of waste generated. Waste audits of the department's waste generation may be required to improve the granularity of data.

The detailed information that can be obtained from audits can also be used to accurately determine the effectiveness of any action plans. For instance, the department may decide to implement an action plan targeting reduced office paper waste generation at a specific location.

Endorsement and resource allocation

It is envisaged that the currently available waste data from each location be assessed to determine whether the quality of data and level of granularity is acceptable for reporting purposes. If current data is not acceptable or granular enough, additional measures will need to be implemented to improve data collection and accuracy. These measures may include surveys or periodical audits.

EMT members will be briefed on the requirements for, and the resource input required to achieve a worthwhile baseline of current waste management practices as well as the requirements for ongoing data collection. Endorsement will be required for the allocation of resources. If EHP staff members are to perform data collection activities, they should be provided with the appropriate time, authority and resources to fulfil these responsibilities. If the functions are to be performed by external parties, this will require the allocation of financial resources.