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Introduction

The Department of Health (‘the Department’) is committed to ensuring that available resources are used efficiently and effectively for future generations, and to minimise waste in the delivery of its services.

To achieve this outcome the Department will focus on the avoidance of waste, the reuse and recycling of materials, and an increased use of recycled materials where cost effective and appropriate to do so.


As part of the Department’s obligation under the Waste Reduction and Recycling Act 2011, the Department of Health Waste Reduction and Recycling Plan 2018-2020 (the Plan) was developed to support waste management and reporting.

This plan is to be tailored to specific waste streams, locations or functions. Where required, waste reduction and recycling actions will be progressively implemented during the second half of the implementation period of this plan. The lessons learnt and efficiencies achieved during the implementation period of this plan will inform the ongoing waste management and recycling strategy.

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

1. Overview of our organisation

The Department’s vision is that, by 2026 Queenslanders will be among the healthiest people in the world.

Five principles underpin the vision, direction and strategic agenda. These are sustainability, compassion, inclusion, excellence and empowerment. The directions underpinning these principles is a commitment to promoting wellbeing, delivering healthcare, connecting healthcare and pursuing innovation. These principles underlie the Department’s commitment to excellence in all areas, contributing to delivery of quality frontline services by providing responsive and integrated services.

The Department consists of the Office of the Director-General, Internal Audit Office, Corporate Services Division, Clinical Excellence Division, Healthcare Purchasing and System Performance Division, Prevention Division, Strategy, Policy and Planning Division, Queensland Ambulance Service, Health Support Queensland (HSQ), and eHealth Queensland.

These Divisions/areas of the Department are responsible for contributing and aligning their processes to this plan including where there may be a requirement for Divisions/areas to produce a sub plan, unless they have adopted other waste reduction and recycling plans by Hospital and Health Services or Agencies managing their waste (e.g. Queensland Ambulance Services and parts of HSQ).
2. Waste generated by the Department

Office versus non-office based operations

For the purposes of waste management, the Department’s 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 very different to office-based operations.

Waste generated from office-based operations

The majority of the Department’s staff perform office-based functions.

It is anticipated that the Department’s 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: Components of a typical office-based waste stream](image)

Waste generated from non-office based operations

The Department intends to baseline waste data collection to understand the volume and type of waste generated by the Department, as detailed in Section 5 and Appendix A.

There is waste generated by sites other than those in office based operations, and may include:

- liquid and gas wastes generated by laundries
- waste generated from use of raw materials in pharmaceutical manufacturing processes which would be a part of the State entity plan
- waste generated from clinical laboratories either embedded within Hospital and Health Services or on owned sites including Forensic and Scientific Services
- potential carbon emissions and waste associated with supply logistics operations, warehouses and maintaining of trucks/vehicles

__________________________

1Source: Public Sector Environmental Management Better Practice Guide.
• clinical waste generated from laboratories operated by the Department, will address this waste in a separate Planning entity Waste Reduction and Recycling Plan.

The construction, renovation, maintenance and demolition work for the Department’s tenanted buildings is usually undertaken by third parties (e.g. external contractors) on behalf of the building owner, the Department and agencies. The Department 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 the Department initiates the works undertaken in their owned buildings, the Department can influence the contractor in undertaking and reporting waste reuse and/or recycling.

Current eWaste disposal practices in the Department is compliant with the Queensland Government requirements under Information Standard 13 – Procurement and disposal of ICT products and services including information. Standard 18 – Information Security.

3. The Department’s approach to Waste Management

The Department’s 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 Waste 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.

![The waste and resource management hierarchy](image)

**Figure 2:** The waste and resource management hierarchy.

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 the Department will use the hierarchy in managing its waste.
Table 1: Waste and resource management hierarchy

<table>
<thead>
<tr>
<th>Management Option</th>
<th>Definition</th>
<th>Examples of waste reduction and recycling activities²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid</td>
<td>Avoid unnecessary resource consumption.</td>
<td>Avoid the generation of paper waste by encouraging the use of electronic copies of documentation.</td>
</tr>
<tr>
<td>Reduce</td>
<td>Reduce waste generation and disposal.</td>
<td>Ensure all printers are set to double-sided printing as a default. What about black print to reduce turnover of colour cartridges.</td>
</tr>
<tr>
<td>Reuse</td>
<td>Reuse waste resources manufacturing, without further manufacturing.</td>
<td>Review policies on the disposal of obsolete IT (or other) equipment with a focus on identifying alternative uses or users.</td>
</tr>
<tr>
<td>Recycle</td>
<td>Turning waste resources into similar or different products.</td>
<td>Increase staff awareness in order to maximise co-mingled recycling and avoid contamination of recycling bins.</td>
</tr>
<tr>
<td>Disposal</td>
<td>Dispose of waste only if there is no viable alternative.</td>
<td>The Department will ensure that our waste will only be disposed of at landfill facilities that are operated in accordance with prescribed legislation.</td>
</tr>
</tbody>
</table>

² Note that these are generic examples. As outlines in Section 5 of this plan, specific actions will only be developed once sufficient baseline data has been collected.
Resource management principles

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

### Table 2: Resource management principles

<table>
<thead>
<tr>
<th>Principle</th>
<th>Definition</th>
<th>Examples of waste reduction and recycling activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>The polluter pays principle</td>
<td>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.</td>
<td>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. 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.</td>
</tr>
<tr>
<td>The proximity principle</td>
<td>Waste and recovered resources should be managed as close to the source of generation as possible.</td>
<td>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).</td>
</tr>
<tr>
<td>The product stewardship principle</td>
<td>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.</td>
<td>Reviewing procurement procedures.</td>
</tr>
</tbody>
</table>
Continuous Improvement

The cycle of continuous improvement in waste management detailed in Figure 3 illustrates how the activities proposed for this Plan in Section 5 should be undertaken.

![Figure 3: Cycle of continuous improvement in waste management](image)

Establishment of a Waste Reduction and Recycling Network

The Department will establish a waste reduction and recycling network working group to address waste reduction and recycling. The Department's Corporate Services Division will take a lead role in establishing a Waste Reduction and Recycling Network (the Network) with representatives from nominated business areas.

The network will support the Corporate Services Division in:

- baseline data collection
- assisting in the development of improved waste reduction and recycling opportunities
- promoting waste and recycling awareness
- collecting and consolidating ideas for improved waste and recycling management
- measuring the success of waste reduction and recycling activities
- review reporting data.
4. Long-term objectives

The Department will contribute to the *Queensland Waste Avoidance and Resource Productivity Strategy*, which provides a range of targets to be achieved by 2024. The *Queensland Waste Avoidance and Resource Productivity Strategy* targets are:

- General waste production will be reduced by 5 percent (from previously recorded levels where available)
- Divert 30 percent of major waste streams (co-mingle recyclables, paper and cardboard) from landfill.

In addition to these priorities, the Department’s approach over the period of this plan will be to contribute the 2024 state-wide targets by:

- identifying and monitoring the Department’s waste profile
- adopting waste management and reduction practices that maximise the Department’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 the Department’s learnings to create a model of leadership.

The timeframe for realising the state-wide targets requires three consecutive Plans, each with a three-year timeframe. It is envisaged that those three Plans will take the following phases:

1. **2018 - 2020** – Baseline data collection: baseline data collection, development and implementation of initial waste reduction and recycling activities
2. **2020 - 2024** – Actions to strengthen our management of waste reduction and recycling: continuous improvement, review and refinement of waste reduction and recycling activities

These plans will be integrated, with each plan building on the work of the previous one.

5. Planned activities

An important objective of the 2018 - 2020 plan is to maximise the Department’s contribution to achieving the state-wide strategy's waste reduction and management targets by 2024. In doing this, the Department 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 (this Plan) – Baseline data collection (2018 - 2020)**

Before taking specific actions, the Department will need a firm understanding of the types and quantities of waste generated from its operations by investigating waste management practices at the Department’s sites.

The focus for this Plan and Sub Plans will be on collecting baseline data. This will also allow the Department to focus on waste management efforts that will realise the greatest benefit.
Priority areas for baseline data collection are:

- quantifying the waste generated across the Department’s 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 Two – Actions to strengthen our management of waste reduction and recycling (2020 – 2024)**

The baseline data will be used to identify specific issues and opportunities for improvement in waste reduction and recycling, set targets and continuing to strengthen our 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 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.

These activities will be submitted to the Capital and Asset and Services Branch to manage required approvals within the Department for the allocation of required resources.

**Phase Three – Implementation of actions (2024)**

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

Progress will be regularly monitored and reported, as detailed in Section 6. 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 Plan, the areas for improvement will inform the Plan for 2024 -2027.
6. Waste reduction and recycling targets

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

Understanding our waste profile

The quantifiable targets discussed in Section 5, can only be set once the Department has a clear understanding of its waste profile. The objective of the first phase of the implementation of this Plan is to establish an accurate baseline. This baseline will 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, the Department 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, 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.

Recycling target

In line with the state-wide target for commercial and industrial waste, the Department 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 on the findings of baseline data collection, the Department will set recycling targets for components of its waste stream.

7. Endorsement and resource allocation

Waste reduction and recycling initiatives will be managed by each Division/area managing waste identified in Section 1, and reported by the Corporate Services Division. The Department Divisions/areas will need to establish approval processes if asked to approve the allocation of resources.
8. Roles and responsibilities

As outlined in Section 3, the Department will establish a working group to address waste reduction and recycling. The Capital and Asset Services Branch will take a leading role in establishing this group. The working group will consist of representatives from each of the Divisions/areas within the Department. 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.

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

9. Reporting

The Department will review this Plan at least every three years and produce an annual report on waste reduction and recycling in accordance with the requirements of the relevant legislation within two months after the end of each financial year to the Department of Environment and Sciences on the status of their plans.
Appendix A – Baseline Data Collection

While the Department currently has a good understanding of the types of waste generated from its operations, better information can be collected on the volumes of the different waste types.

It is essential that a baseline be established before effective waste reduction and recycling activities are determined 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 the data collection will be the identification of appropriate staff members 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.

Waste generation

- Identification of the types of wastes generated as a result of office based operations.
- Identification of the types of wastes generated from all non-office based operations 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 waste reduction and recycling activities. For instance, the Department may decide to implement waste reduction and recycling activities targeting reduced office waste paper generation at a specific location. By relying solely on whole-of-building data, the Department will not be able to measure the effectiveness of the waste reduction and recycling activities on its own operations, since the data on the improvement effort will be diluted in total volumes.

**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.

The Department’s 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 the Department’s 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.