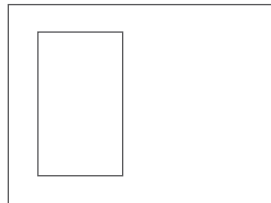




Recycling Policy

for Buildings and Civil Infrastructure

A whole-of-Government Recycling Policy for Buildings and Civil Infrastructure



Recycling Policy for Buildings and Civil Infrastructure

First Edition

Queensland Department of Public Works

July 2009

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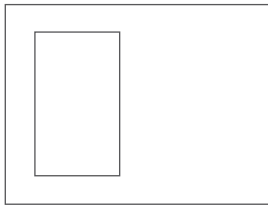
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Recycling Policy for Buildings and Civil Infrastructure

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The construction industry is necessarily one of the biggest consumers of potentially recyclable and reusable materials and, as such, it gives me great pleasure to announce the release of the *Recycling Policy for Buildings and Civil Infrastructure* (the Policy) for Queensland Government construction and demolition projects.

The Policy aims to promote sustainability in the built environment through the improved utilisation of resources and reduced pressure on landfill waste sites.

It is the first time in the history of the State that any government has taken a whole-of-Government approach to building material recycling.

Our Government recognises the need to lead by example and promote resource recovery through recycling and reuse of building materials.

The Policy is expected to stimulate the development of the recycling industry and increase its capacity in Queensland in the foreseeable future.

It seeks to encourage behavioural and cultural change with respect to the management of waste material from construction and demolition projects for buildings and civil infrastructure.

The Department of Public Works has prepared guidelines and resource material to assist in the general understanding of the Policy and in specific requirements, such as measuring, documenting and reporting of recycling.

This document should be seen as an important first step in the ongoing development of policies and strategies to maximise the reuse and recycling of building materials.

A handwritten signature in black ink, appearing to read 'Robert Swarten', written in a cursive style.

Robert Swarten MP

**Minister for Public Works and
Information and Communication Technology**

Policy Statement

The Queensland Government is committed to maximising the resource recovery of materials used in building and civil infrastructure projects in order to help conserve natural resources and contribute to ecologically sustainable development.

All Queensland Government departments and Government Owned Corporations and Companies are required to develop a resource (waste) recovery program for all recyclable materials in any significant government building or form of infrastructure that is being demolished or redeveloped, and to seek practicable and cost-effective opportunities for recycling and reuse of those materials used in building and civil infrastructure projects where Resource Recovery Transfer Centres are established.

The Policy states a minimum target to recover construction and demolition waste material from landfill of 40% recycling or reuse of each Waste Material Type, within the Total Waste Material Composition of each designated project for government buildings and civil infrastructure projects involving construction, refurbishment and/or demolition.

[Note: Each Waste Material Type is expressed by weight and as a percentage of material type by weight of the total amount of Waste Material Type within the Total Waste Material Composition of each designated project].

The *Guidelines to the Recycling Policy for Buildings and Civil Infrastructure* are available on the Works Division website www.build.qld.gov.au. The Recycling Guidelines should be referred to in conjunction with this Policy.

Policy Objective

The Queensland Government's objective is to ensure that all practical and cost-effective opportunities for recycling and reuse of materials used in building and civil infrastructure projects are implemented.

Scope

The Policy applies to all Queensland Government departments and Government Owned Corporations and Companies that are responsible for the management of government buildings and civil infrastructure (as defined in **Attachment 1**).

The Policy applies to projects involving the construction, refurbishment and demolition of buildings and civil infrastructure.

The Policy applies only to Queensland Government departments and Government Owned Corporations and Companies that have direct responsibility for construction, refurbishment or demolition projects. The Policy applies only to these projects undertaken in Queensland, with provision for extenuating circumstances and/or regional factors which limit the capacity for recycling.

The Policy does not apply to projects or programs associated with maintenance or operations of buildings or civil infrastructure.

The Policy excludes asbestos and other hazardous materials (as defined in **Attachment 1**).

Key Principles/Elements

The Policy is underpinned by the following key principles and elements:

- The Policy is in accordance with the *Environmental Protection (Waste Management) Policy 2000 (Qld)*.
- With regard to office buildings, the Policy complements non-mandatory Green Star™ objectives developed by the Green Building Council of Australia.
- Recycling must be viewed in the broader context of the waste management hierarchy (as outlined in the *Environmental Protection (Waste Management) Policy 2000*) which specifies the following order of preference (from most preferred to least preferred) for dealing with waste: avoidance, reuse, recycling, energy recovery and disposal.
- While the terms ‘recycling’ and ‘reuse’ have technically different meanings (as defined in **Attachment 1**), for the purposes of this Policy recycling includes reuse since the two processes have the common outcome of diverting potential waste from landfill.
- The Policy requires Queensland Government departments and Government Owned Corporations and Companies to demonstrate a commitment to recycling by ensuring that a selected contractor or in-house service provider will have developed a Recycling Management Plan for each applicable project which are those projects within the Policy scope as outlined above.
- A Recycling Management Plan will include details on recycling measurement, recording and reporting requirements. Under this Policy, it will become necessary for Government departments and Government Owned Corporations and Companies to report annually on recycling activities and achievements against targets.
- The Policy sets a non-mandatory recycling/reuse target of 40% for each waste material type, for building and infrastructure projects for an initial two year period. This target applies to the recycling and/or reuse of waste materials by weight generated by project activities for relevant projects in Queensland. This percentage refers to the weight of total material type that would otherwise be disposed of in landfill.
- It should be noted that whilst a minimum target to recover construction and demolition waste material from landfill is 40% for each waste material type, a higher percentage rate of material type recycled would be more consistent with contemporary national recycling objectives.
- The Policy allows for a relaxation of the target for projects for which the recycling potential is limited by the nature of the project or by extenuating circumstances of a geographic, ecological or financial nature.
- The Policy allows the extent of recycling to be determined on an individual project basis. Where it can be demonstrated that recycling is not cost effective or will have a negative impact on the project budget, the agency may decide on the extent to which recycling will be applied for that project.

- Recycling opportunities and/or limitations are in accordance with the pursuit of best practice (as defined in **Attachment 1**) and will need to be considered and documented in a project's Recycling Management Plan. The management and endorsement of this plan is an internal issue for each Government agency and each Government Owned Corporation and Company.

References

- *Environmental Protection Act 1994 (Qld)*
- *Environmental Protection Regulation 2008 (Qld)*
- *Environmental Protection (Waste Management) Policy 2000 (Qld)*
- *Environmental Protection (Waste Management) Regulation 2000 (Qld)*
- *Public Records Act 2002 (Qld)*
- *Workplace Health and Safety Act 1995 (Qld)*
- *Workplace Health and Safety (Codes of Practice) Notice 2005 (Qld)*
- *Workplace Health and Safety Regulation 2008 (Qld)*

The Acts and subordinate legislation are found at the Office of the Queensland Parliamentary Counsel website: <http://www.legislation.qld.gov.au/OQPChome.htm>

- *Queensland Government, Environmental Protection Agency (2007), Let's not waste our future, Queensland waste strategy - Discussion paper for public comment, Environmental Protection Agency.*

http://www.epa.qld.gov.au/publications/po2217aa.pdf/Lets_not_waste_our_future_Queensland_waste_strategy_Discussion_paper_for_public_comment.pdf

accessed 21 April 2009.

- Cooperative Research Centre for Waste Management and Pollution Control (1993) *CRC1.2 National Waste Database, National Solid Waste Classification System, Version 6*, CRC for Waste Management and Pollution Control Ltd (CRCWMPC)

<http://awd.csiro.au/awdwebsite2003/Awd%20pubn%20PDFFiles/classn4.pdf>

accessed 21 April 2009.

- *Guidelines to the Recycling Policy for Buildings and Civil Infrastructure.*

Definitions (refer Attachment 1)

Note: The definitions contained in **Attachment 1** are limited in their application to the understanding of this Policy and take precedence over other definitions found elsewhere.

Responsibility under the Policy

The Department of Public Works is responsible for overseeing the implementation of the Policy and assisting Government departments and Government Owned Corporations and Companies with support and guidance on issues relating to the Policy.

Directors-General of the relevant Government departments and the Chief Executive Officers of Government Owned Corporations and Companies will determine those projects that are to be annually reported on Waste Management (Recycling/Resource Recovery) achievements.

Directors-General of the relevant Government departments are to report in their annual reports in accordance with section 40 of the *Environmental Protection (Waste Management) Policy 2000 (Qld)*.

All data collected will be recorded in an appropriate form that is electronically stored, easily accessible, managed and kept in accordance with the *Public Records Act 2002 (Qld)*.

The Policy will be monitored by the Department of Public Works for the first two years of implementation, after which time a comprehensive review and evaluation of the Policy will be undertaken in conjunction with all Government departments, Government Owned Corporations and Companies and representatives from the emerging Recycling, Resource Recovery Industry.

The aim of the review is to establish a new target that is based on the reported achievements at the end of the two year period.

Exemptions under the Policy

The Policy does not include projects or programs associated with maintenance or operations of buildings or civil infrastructure and projects in more remote areas which may have limited access to recycling facilities.

The Policy also excludes projects where hazardous materials contaminate and limit the opportunities for recycling and reuse of construction materials.

Policy Implementation

Policy commenced on 1 July 2009.

Projects for which planning commences from this date (1 July 2009) will be subject to the Policy requirements, and recycling/reuse activities for these projects will be reported in departments' 2009-2010 annual reports.

Definitions and meanings of terms

Agency: means the same as department of government as defined under section 4A of the *Financial Administration and Audit Act 1977*.

Applicable Projects: means projects involving construction, refurbishment and/or demolition of buildings or civil infrastructure under the control of Queensland Government departments and Government Owned Corporations.

[Maintenance and operational projects are excluded from the scope of this Policy.]

Best Practice: means a way or method of accomplishing a business function or process that is considered to be superior to all other known methods.

Civil Infrastructure: is a collective term for public works required for that component of an industrial economy not associated with the military; apart from buildings, it includes bridges, roads, rail lines, cycle and pedestrian pathways, tunnels, dams, reservoirs, pipelines, airports, power plants, ports and marinas, telecommunication infrastructure, headworks of industrial plants, distribution grids and recreational infrastructure.

Construction and Demolition (C&D) waste: means Construction and Demolition solid waste material (resource) generated by the construction, remodelling, renovation, repair, alteration or demolition of Buildings (inclusive but not limited to residential, commercial, government or institutional buildings, industrial or commercial facilities) and Civil Infrastructure (inclusive but not limited to general infrastructure-type developments such as roads, bridges, dams, tunnels, railways, power plants, ports and marinas; refer to definition of Civil Infrastructure), Queensland EPA (2007); New South Wales Environment Protection Authority, (1998).

Department: is defined in section 4A of the *Financial Administration and Audit Act 1977 (Qld)*.

Government Owned Corporation: is defined in section 5 of the *Government Owned Corporations Act 1993 (Qld)*.

Government Company: is defined in section 2 of the *Government Owned Corporations Act 1993 (Qld)*.

Hazardous materials: is defined in section 12 of the *Dangerous Goods Safety Management Act 2001 (Qld)*.

Recycling: is a process, by which waste material (otherwise destined for disposal), is collected, sorted, reprocessed or remanufactured and then is used to make a product.

Recycling Guidelines: means the Queensland Government's *Guidelines to the Recycling Policy for Buildings and Civil Infrastructure Edition 1 (1 July 2009)*.

Recycling Management Plan (synonymous with Waste Reduction and Resource Recovery Plans): is a formal record of the management of recycling/reuse practices in accordance with the pursuit of best practice (refer to **Attachment 5 of the Guidelines**). This usually includes monthly project reports on material type, measured result of material reused, recycled or disposed. Standard method of measurement is usually expressed in terms of weight (tonnes or kg or %) or volume (m³).

Recycling Policy (the Policy): means the Queensland Government's *Recycling Policy for Buildings and Civil Infrastructure Edition 1 (1 July 2009)*.

Recycling Target: means the minimum percentage target of the total amount of each Waste Material Type within the Total Waste Material Composition, set by ‘the Policy’. Each Waste Material Type is expressed by weight and as a percentage of material type by weight of the total amount of Waste Material Type within the Total Waste Material Composition.

Resource Recovery Transfer Centres (synonymous with Recovery and Waste Transfer Centres): have an important role in the recovery, reuse and recycling of Waste Materials in preference to discarding them directly in landfills. These centres also aid in the economic transportation of waste disposal as all unrecoverable waste is transported to landfill for disposal. Recovery Transfer Centres receive Waste Material Types within their operation and a charge is made accordingly by volume.

Reuse: is a process by which waste otherwise destined for disposal is cleaned or repaired for use, for the purposes of prolonging the original product lifetime prior to treatment or reprocessing.

Waste Material Composition: The component material types, by percentage or weight, in a waste stream; adapted from *CRC for Waste Management and Pollution Control (1993) version 6*.

Waste Material Type: Waste material type is classification within the National Solid Waste Classification System adapted from *CRC for Waste Management and Pollution Control (1993) version 6*.

Waste Management Plans (WMP): is a formal procedure that focuses on a project’s minimisation of waste materials going to landfill. The requirement of Waste Management Plans is to encourage effective waste planning by identifying material that can be reused, recycled and appropriate disposal destinations.

One approach used in Waste Management Plans is to schedule weekly, the expected type of material, material weight (tonnes or kg or %) volume (m³) or capacity (L) or lineage (l/m), on-site storage and treatment facilities and final destination (reused/recycled/disposal landfill).

Waste Reduction and Resource Recovery Plans (syn. Recycling Management Plan): are a formal record of the management of recycling/reuse practices in accordance with the pursuit of best practice (refer Attachment 5, Guidelines). These usually include monthly project reports on material type, measured result of material reused, recycled or disposed. Standard method of measurement is usually expressed in terms of weight (tonnes or kg or %) or volume (m³).

