

# Googong Township water cycle project: Stage A - Network (east)

Waste and Resource Management Plan  
January 2013

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**Quality control**

Our reference	11122
Version number	3.0
Date	25 September 2020
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# 1 Introduction

## 1.1 Context

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This Waste and Resource Management Plan (WRMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the Googong Township water cycle project Stage A – Network (east) (the Project).

Refer to Section 1 and Section 2 of the CEMP for additional detail on the scope of the Project to which this WRMP applies.

This WRMP has been prepared to address the requirements of the Minister’s Conditions of Approval (CoA), the Statement of Commitments (SoC), the safeguards listed in the Googong Township water cycle project Environmental Assessment (EA), submissions report, and all applicable legislation.

## 1.2 Background

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The Googong Township water cycle project EA assessed the impacts of construction and operation of the Project on waste and resource management.

A detailed assessment was prepared to address the Director-General’s Requirements issued by the Department of Planning and Infrastructure (DP&I). Waste and resource use was addressed in Section 13.2 of the EA.

The EA concluded that there is unlikely to be significant waste impacts associated with the construction and operation of the Project, following the implementation of the proposed mitigation measures identified in the EA.

## 1.3 Environmental management systems overview

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The overall Environmental Management System for the Project and approach to managing environmental impacts for the Project is described throughout the CEMP.

This WRMP forms part of the environmental management framework for the Project, as described in Section 1.5 of the CEMP. This Plan has been developed in accordance with CoA B7 to B10 and relevant legislation and guidelines (refer to section 3.1).

# 2 Purpose and objectives

## 2.1 Purpose

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The purpose of this Plan is to describe how the Principal (ACTEW) and the Contractor propose to manage waste and resources during construction of the Project.

This Plan also assists in ensuring the Project meets the environmental objectives and targets as defined in Section 3.5 of the CEMP.

## 2.2 Objectives

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The key objective of the WRMP is to ensure that waste generation and resource use impacts are minimised. To realise this objectives, the following will be undertaken:

- Ensure appropriate controls and procedures are implemented during construction activities to avoid or minimise potential adverse impacts to the environment (refer Section 5.1).
- Ensure appropriate measures are implemented to address the relevant CoA and SoC, and the safeguards detailed in the EA and submissions report (refer Sections 3.2 and 3.3 respectively).
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 3.1 of this Plan.

# 3 Environmental requirements

## 3.1 Relevant legislation and guidelines

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Section 3.1 of the CEMP identifies the legal and other requirements applicable to the Project. This section identifies the key legislation applicable to managing waste and resources.

### 3.1.1 Legislative requirements

#### *Environmental Planning and Assessment Act 1979*

As outlined in Section 3.1 of the CEMP, the Project has been assessed and approved by the NSW Department of Planning and Infrastructure (DP&I) under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

#### *Environmental Planning and Assessment Regulation, 2000, Schedule 2 – Waste Management Hierarchy (WMH)*

The Waste Management Hierarchy (WMH) describes the approach to waste management, to ensure the most efficient use of resources to reduce environmental harm, and to provide for the continual reduction in waste generation in line with the principles of ecologically sustainable development (ESD). The Project will identify and implement strategies to reduce, reuse, recycle and dispose of material onsite.

The WMH, from most desirable to least desirable, is presented below:

- **Reduce:** Avoid waste by reducing the quantity of waste being generated. This is the simplest and most cost-effective way to minimise waste. It is the most preferred option in the WMH.
- **Reuse:** Reuse is when a product is used again for the same or similar use, without reprocessing. Reusing a product more than once in its original form reduces the waste generation and energy consumption associated with recycling.
- **Recycle:** Recycling involves processing waste into a similar non-waste product, which consumes less energy than production from raw materials. Recycling prevents further environmental degradation, and saves landfill space and resources.
- **Dispose:** Removing waste from worksites, compounds and offices, and discarding the material in a licensed landfill site, or other appropriately licensed facility.

#### *Waste Avoidance and Resource Recovery Act 2001 (WARR Act)*

The WARR Act promotes waste avoidance and resource recovery by:

- Encouraging efficient use of resources in accord with ecologically sustainable principles.
- Promoting the “Avoid, reuse, recycle, dispose” hierarchy.
- Ensuring industry has a responsibility for reducing and dealing with waste providing penalties for breaches of this Act.
- Providing penalties for breaches of this Act.

### *Protection of the Environment Operations Act 1997 (POEO Act)*

The POEO Act is the key piece of environment protection legislation, and is administered by the Environment Protection Agency (EPA).

Construction of the Project will be undertaken in accordance with the POEO Act, which covers a range of environmental offences including the regulation and enforcement of pollution control in NSW. Specifically Part 5.6 of the POEO Act identifies mechanisms for preventing environmental degradation including pollution prevention, cleaner production, reduction in discharge levels likely to cause harm to the environment, recycling and progressive environmental improvement.

An s143 notice under the POEO Act enables the disposal of waste to private properties which are not licensed waste facilities, such as Virgin Excavated Natural Material (VENM).

### *Protection of the Environment Operations (Waste) Regulation, 2005*

The Protection of the Environment Operations (Waste) Regulation, 2005

- Provides for waste assessment and classification.
- Sets requirements for handling, storage, transport and disposal of wastes including reporting requirements.
- Applies to the disposal of all wastes generated by the works.

### *National Greenhouse and Energy Reporting Act 2007*

The *National Greenhouse and Energy Reporting Act 2007* (NGER Act) introduced a single national framework for the reporting and dissemination of information about the greenhouse gas emissions, greenhouse gas projects, and energy use and production of corporations.

The objectives of the NGER Act are to:

- Underpin an emissions trading scheme.
- Inform government policy formulation and the Australian public.
- Help meet Australia's international reporting obligations.
- Assist Commonwealth, state and territory government programs and activities.
- Avoid the duplication of similar reporting requirements in the states and territories.

Corporations that meet an NGER threshold must report its:

- Greenhouse gas emissions.
- Energy production.
- Energy consumption.
- Other information specified under NGER legislation.

### **3.1.2 Relevant guidelines**

- *National Greenhouse and Energy Reporting Guidelines* (Department of Climate Change, 2008).
- *Waste Classification Guidelines* (DECCW, 2008).
- *Waste Reduction and Purchasing Policy (WRAPP) Reporting Guidelines* (OEH, 2011).



## 3.2 Minister's Conditions of Approval

The CoA relevant to this Plan are listed Table 3.1. A cross reference is also included to indicate where the condition is addressed in this Plan or other management documents.

**Table 3.1** Conditions of approval relevant to waste management

CoA No.	Condition requirements	Document reference
B7	The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the <i>Protection of the Environment Operations Act 1997</i> , if such a licence is required in relation to that waste.	Table 5.1 (WR2, WR3, WR4)
B8	The Proponent shall maximise the reuse and/or recycling of waste materials generated on site, to minimise the need for treatment or disposal of those materials outside the site.	Table 5.1 (WR2, WR5)
B9	The Proponent shall ensure that all liquid and/or non-liquid waste generated by the project is assessed and classified in accordance with <i>Waste Classification Guidelines</i> (DECC 2008, or any future guideline that may supersede that document) and where removed from the site is only directed to a waste management facility lawfully permitted to accept those materials.	Table 5.1 (WR5, WR6)
B10	The Proponent shall ensure that no green waste is burned on site during the life of the project.	Table 5.1 (WR9)

## 3.3 Statement of commitments

The SoC relevant to this Plan are listed Table 3.2. A cross reference is also included to indicate where the condition is addressed in this Plan or other management documents.

**Table 3.2** Statement of commitments relevant to waste and resource management

Objective	Ref. No.	Commitment	Timing	Document reference
Practice responsible resource management during construction.	W1	<p>The CEMP will address the principles of the resource management hierarchy (avoidance, resource recovery and disposal in that order) and disposal will be to a licensed waste facility. The CEMP will include the following:</p> <ul style="list-style-type: none"> <li>• Procedures to classify waste types in accordance with the Waste Classification Guidelines and NSW legislative requirements.</li> <li>• Resource recovery and re-use strategies for each waste type.</li> <li>• Details of treatment and storage of on-site waste.</li> <li>• Procedures and disposal arrangements for relevant materials.</li> <li>• Reporting and recording requirements for all waste movements, allowing determination of recycling and re-use levels achieved.</li> </ul>	Construction	Table 5.1 (WR2, WR3, WR5, WR6, WR7, WR8, WR10, WR11)

# 4 Environmental aspects and impacts

The following sections summarise existing types and sources of waste and potential impacts. Identified impacts are then reviewed. The key reference documents are Section 13.2 of EA.

## 4.1 Environmental aspects

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### 4.1.1 Waste generation

The expected wastes generated from the Project and potential impacts are outlined in Table 4.1.

### 4.1.2 Resource consumption

GTPL (the Project proponent) will be required to report greenhouse gas emissions under the NGER Act.

Section 24 of the NGER Act specifies that the Clean Energy Regulator (CER) must publish the following totals reported by a registered corporation that exceeds the publishing threshold:

- Scope 1 greenhouse gas emissions production and energy consumption.
- Scope 2 greenhouse gas emissions.
- Energy consumption.

This information will be tracked along with the waste data as per the **NGER and WRAPPS Reporting Procedure** (Appendix B).

**Table 4.1** Waste types, sources and potential impacts

Classification*	Type of waste	Source	Quantities	Potential impacts
<b>Construction wastes</b>				
Special waste	Waste tyres	Construction vehicles.	Expected to be low.	Resource use, and difficulties with disposal.
Liquid waste	Concrete slurries, drilling muds, and bentonite muds consisting of approved water based products or synthetic lubricants.	Boring for pipe installation.	Expected to be low.	Sedimentation of runoff water. Fine particulates when waste is dry.
	Liquid waste from human waste storage facilities or waste treatment, including pump-out waste and sewage.	Construction site offices and portable toilets.	Expected to be low.	Soil and water contamination from leaks or transportation.
	Fuels, oils, greases, engine coolant.	Vehicle maintenance and refuelling.	Expected to be low.	Soil and water contamination from leaks or spills.
Hazardous waste	Adhesives, lubricants, cleaning agents, water treatment chemicals, other plastic material.	Maintenance during construction.	Expected to be low.	Soil and water contamination from leaks or spills.
	Any other waste material that meets the criteria for dangerous goods under the <i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i> .	Maintenance during construction.	Expected to be low.	Contamination or incidents during transportation.

Classification*	Type of waste	Source	Quantities	Potential impacts
General solid waste (putrescible)	Non-recyclable and other putrescible general solid waste.	Construction site offices and other activities.	Expected to be low.	Soil and water contamination, resource use, odour and visual.
General solid waste (non-putrescible)	Recyclables – glass, aluminium cans, PET plastic bottles, scrap metal and off-cuts, paper and cardboard.	Operation and decommissioning of temporary site offices, and general site maintenance during construction.	Expected to be low.	Resource use and recycling potential for waste.
	Concrete, metallic materials, brick, rubble, soils (topsoil, fill materials).	Construction of WRP, pipelines and other infrastructure; and trenching, grading and other earthworks.	Unknown at concept stage, expected to be in the hundreds of tonnes.	Increased resource use, dust, sedimentation of runoff, and dispersal of building rubbish and visual.
	Vegetation (including grasses, established trees and shrubs).	Clearing for construction activities.	Expected to be in the tens of tonnes.	Loss of flora and fauna habitat, and reduction in biodiversity.
	Spoil.	Trenching and excavations for construction.	Unknown at concept stage, but anticipated to be in the thousands of tonnes.	Sedimentation of runoff water, dust, visual impacts.
	Drained and crushed oil filters, and rags, oil absorbent materials that do not contain free liquids.	Maintenance during construction and operation.	Expected to be low.	Soil and water contamination.

## 4.2 Waste and resource management impacts

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In conjunction with the specific mitigation measures mentioned in Table 4.3, the nature and volume of waste generated during the construction of the Project, if not managed appropriately, may potentially impact on:

- Visual amenity and aesthetic quality of the construction area.
- Water quality of local drainage lines and watercourses. This is particularly relevant for gross pollutants (litter) and accidental release of contaminated liquids.
- Health and safety of workers and visitors to the site.

# 5 Environmental control measures

## 5.1 Waste and resource management mitigation and management measures

A range of environmental requirements and control measures are identified in the various environmental documents, including the CoA, SoC and the EA. Specific measures and requirements to address impacts on waste and resource management are outlined in Table 5.1.

**Table 5.1** Mitigation measures

ID	Measure	When to implement	Reference	Responsibility
WR1	Project induction and toolbox talks will detail waste minimisation, reuse measures and energy conservation methods.	Construction	CoA A8	Environment Manager
WR2	Waste segregation and separation will be promoted to facilitate reuse and recycling as a priority as follows: <ul style="list-style-type: none"> <li>Waste segregation on site. All waste materials will be separated on site into dedicated bins/areas where practicable for either reuse onsite or collection by a waste contractor.</li> <li>Waste separation off site (where appropriate facilities are available for off-site separation). All wastes will be deposited into one bin where space is not available on the worksite(s) and the waste will be sorted off site by a waste contractor.</li> </ul>	Construction	CoA B7 CoA B8 SoC A1	Environment Manager Construction Manager Project Engineer
WR3	A <b>Waste Removal Register</b> of all waste collected for disposal and/or recycling/reuse, including amounts, date and time and details, and location of disposal will be maintained (to be developed by the contractor).	Construction	CoA B7 SoC W1	Environment Manager Foreman
WR4	Prior to disposal of waste at an off site waste management facility, the Project will verify that the receiver is licensed to accept the waste.	Construction	CoA B7	Environment Manager
WR5	Prior to disposal, non-recyclable liquid and non-liquid waste will be classified based on the <i>Waste Classification Guidelines: Parts 1 and 2</i> (DECC, 2009) and in accordance with the <b>Waste Classification Procedure</b> (7.2Appendix A). This procedure also represents the resource recovery and re-use strategy.	Construction	CoA B8 CoA B9 SoC W1	Environment Manager Foreman

ID	Measure	When to implement	Reference	Responsibility
WR6	Any contaminated waste will be handled, separated, contained, managed and disposed of to prevent migration and further contamination in accordance with the DECCW guidelines and the <i>Contaminated Land Management Act 1997</i> .	Construction	CoA B9 SoC W1	Environment Manager Construction Manager
WR7	All material contaminated by spills (fuels, oil, lubricants) will be labelled and stored in a sealed container within a bunded area (if required) and will be transported to a licensed waste disposal facility.	Construction	SoC W1	Environment Manager Foreman
WR8	All oils, potentially hazardous liquids and chemicals will be stored in a bunded and covered area, isolated from stormwater run-off and on pallets or trays where possible. The bunded area will be large enough to hold the contents of the largest container stored inside the bund, plus 10% of its volume.		SoC W1	Environment Manager Construction Manager
WR9	No waste, including green waste will be burnt on site.	Construction	CoA B10	Environment Manager Construction Manager Project Engineer
WR10	Sewage requiring disposal during construction will be sent to a local sewage treatment plant via an approved contractor.	Construction	SoC W1	Environment Manager Construction Manager Project Engineer
WR11	NGER reporting will be undertaken in accordance with <b>NGER and WRAPPS Reporting Procedure</b> for waste that is disposed or reused on the Project site and waste that is disposed, reused or recycled off the Project site (refer 1.1.1Appendix A).	Construction	NGER Act	Environment Manager



# 6 Compliance management

## 6.1 Roles and responsibilities

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The Project team's roles and responsibilities are outlined in Section 4.1 of the CEMP. Specific responsibilities for the implementation of environmental controls relating to this plan are detailed in Section 5.1 of this Plan.

## 6.2 Training

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All personnel working on site will undergo site induction training relating to waste and resource management issues. The induction training will address elements related to waste and resource management including:

- Legal and other requirements.
- Waste classification guidelines.
- On site waste management practices.
- Any procedures developed as a requirement of this Plan.

Further details regarding induction and training are outlined in Section 5 of the CEMP.

## 6.3 Inspections

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Inspections of activities with the potential to impact waste management and resource use will occur for the duration of the project. Daily visual inspections of the construction site will be undertaken by the Environment Manager and construction personnel to ensure appropriate waste management practices are being implemented.

Weekly environmental inspections including of waste and resource management and mitigation measures will be undertaken. This will include auditing of construction activities to ensure appropriate storage and disposal of waste and recycling materials. These inspections will be documented on the weekly checklist.

The Environmental Representative will inspect the site regularly.

Requirements and responsibilities in relation to inspections are documented in Section 8.1 of the CEMP.

## 6.4 Auditing

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Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this Plan, CoA and other relevant approvals, licenses and guidelines.

Audit requirements are detailed in Section 8.4 of the CEMP.

## 6.5 Reporting

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Results and outcomes of inspections, monitoring and auditing will be reported internally on a monthly basis. Six-monthly construction compliance reports will be prepared to report on compliance with the Project Approval. Reporting requirements and responsibilities are documented in Section 8.5 of the CEMP.

# 7 Review and improvement

## 7.1 Non-conformity, corrective and preventative actions

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A non-conformance is an action or omission that does not conform with the requirements of this Plan or any legal and other requirements. Any member of the Project team or the Environmental Representative can identify a non-conformance or opportunity for improvement. Section 8.3 of the CEMP identifies the process for identifying, reporting, recoding and reviewing non-conformances. This will ensure continual improvement.

## 7.2 Management plan update and amendment

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The processes described in Section 7 and Section 8 of the CEMP (relating to incidents, inspections, monitoring and auditing). This will occur as needed.

# Appendix A Waste classification procedure

## A.1 Distribution

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There are no restrictions on the distribution or circulation of this procedure within the Googong Water Cycle Stage A – Network project (east) (the Project).

## A.2 Purpose

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This procedure details the requirements and actions to be taken to classify waste materials during all site activities.

## A.3 Induction/training

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Where required, Project personnel will be made aware of this procedure as required through toolbox talks.

## A.4 Scope

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This procedure is applicable to all activities conducted by the Project contractor or subcontractors where waste classification is required. The classification of wastes generated from the Project is to be in accordance with the *Waste Classification Guidelines* (DECCW, 2009).

## A.5 Procedure

Step 1	
Can the waste be recycled?	Reuse, Recycling, Disposal options
<p>Some waste material can be recycled. This may include:</p> <ul style="list-style-type: none"> <li>• Steel.</li> <li>• Cardboard/paper.</li> <li>• Concrete.</li> </ul>	<p><b>Recyclable materials:</b> If the material can be recycled, then it is to be segregated and stored separately for disposal in accordance with the relevant legislation and guidelines.</p>
Step 2	
Is the waste special waste?	Reuse, Recycling, Disposal options
<p>Special waste is defined as (1) Clinical and related waste, (2) asbestos waste, (3) waste tyres. Clinical/related waste is typically associated with medical/dental/pharmaceutical practice and is unlikely to be generated on site.</p> <p><b>NOTE:</b> Asbestos waste means any waste that contains asbestos. Where asbestos is mixed with other waste to form asbestos waste, it is not considered special waste and is to be assessed in accordance with steps 3 to 7 below. Asbestos waste can only be disposed of at a waste facility that can lawfully receive asbestos and the other class of waste with which it is mixed (if any).</p> <p>If unsure that the waste is/is not special waste then contact the environment officer for further advice.</p>	<p><b>Special waste:</b> If the waste is a special waste category then contact the environmental officer.</p> <p><b>Note:</b> Special waste must be disposed of at a facility licenced to take that classification of waste.</p> <p>Special waste must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p>

Step 3	
If the waste is not special waste (other than asbestos waste), establish whether the waste should be classified as liquid waste.	Reuse, Recycling, Disposal options
<p>According to the waste classification guidelines, liquid waste is any waste that:</p> <ul style="list-style-type: none"> <li>• Becomes free flowing at or below 60°C or when transported</li> <li>• Is not generally able to be picked up by a spade or shovel.</li> </ul> <p>Liquid wastes typically include oils, fuels and must be stored correctly prior to disposal or reuse. Refer 'Storing Liquid Waste' fact sheet at:                      (<a href="http://www.environment.nsw.gov.au/resources/waste/storewaste05249.pdf">http://www.environment.nsw.gov.au/resources/waste/storewaste05249.pdf</a>)</p> <p>If liquid waste is mixed with another waste type (ie hazardous or solid waste) and retains the characteristics of liquid waste, the waste remains liquid waste.</p> <p>If the waste is not a liquid waste then proceed to step 4.</p>	<p><b>Liquid Waste:</b></p> <p>If the waste is a liquid waste then contact the environmental officer.</p> <p>Note: Liquid waste must be disposed of at a facility licenced to take liquid waste.</p> <p>Liquid waste must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p>
Step 4	
Is the waste pre-classified by OEH?	Reuse, Recycling, Disposal options
<p>The following wastes have been pre-classified in the OEH guidelines:</p> <ul style="list-style-type: none"> <li>• Hazardous waste (see step 6)</li> <li>• Restricted solid waste</li> <li>• General solid waste (putrescible)</li> <li>• General solid waste (non-putrescible).</li> </ul> <p>Definitions of pre-classified wastes are included in the OEH Waste Classification Guidelines (December, 2009).</p> <p>General solid waste (non-putrescible) will be the typical waste generated on site. General solid waste (non-putrescible) can be classed into the following sub-classes:</p> <ul style="list-style-type: none"> <li>• Building and demolition waste</li> <li>• Garden waste</li> <li>• Virgin excavated natural material (VENM) and excavated natural material (ENM)</li> <li>• Wood waste.</li> </ul> <p>It is important to separate waste into its classifications and sub-classifications to maximise opportunities for reuse and recycling potential.</p>	<p><b>Hazardous waste:</b> See Step 5.</p> <p><b>Restricted solid waste:</b> If the waste is restricted solid waste then contact the environmental officer. Restricted solid waste must be disposed of at a facility licensed to take that waste type.</p> <p>Restricted solid waste must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p> <p><b>General solid waste (putrescible) and General solid waste (non-putrescible):</b> General solid waste (putrescible) and General solid waste (non-putrescible) must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p>

<b>Step 5</b>	
<b>Does the waste possess hazardous characteristics?</b>	<b>Reuse, Recycling, Disposal options</b>
<p>Waste must be classified as 'hazardous waste' if it is a dangerous good under Class 1, Class 2, Divisions 4.1, 4.2 and 4.3, Class 5, Division 6.1 or Class 8 as identified in the Australian Code for the Transport of Dangerous Goods by Road and Rail (National Transport Commission 2008).</p> <p>Refer OEH Waste Classification Guidelines (December, 2009) for further detail on hazardous waste material classes.</p>	<p><b>Hazardous waste:</b> If the waste is hazardous waste then contact the environmental officer. Hazardous waste must be disposed of at a facility licensed to take that waste type.</p> <p>Hazardous waste must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p>
<b>Step 6</b>	
<b>Determining a waste's classification using chemical assessment?</b>	<b>Reuse, Recycling, Disposal options</b>
<p>Where a material cannot be easily classified as:</p> <ul style="list-style-type: none"> <li>• A special, liquid, or pre-classified waste, or</li> <li>• A waste possessing hazardous characteristics, or</li> <li>• The composition of the material is not known,</li> </ul> <p>it is to be chemically assessed to determine its classification. A licensed contractor will do this.</p>	<p>If the material cannot be easily classified, contact the environmental officer.</p> <p>The environment officer will determine if waste classification using chemical assessment is required.</p> <p>The chemical assessment will be undertaken by a specialist consultant who will provide a waste classification for the material as well as Reuse/ Recycling/ Disposal options.</p>
<b>Step 7</b>	
<b>Determining a waste's classification using chemical assessment?</b>	<b>Reuse, Recycling, Disposal options</b>
<p>Where chemical assessment of a waste results in classification of the waste as general solid waste, further assessment may be undertaken to determine whether the waste can be classified as 'general solid waste (putrescible)' or 'general solid waste (non-putrescible)'. The activities identified in Step 4 shall be followed for material classified as 'general solid waste (putrescible)' or 'general solid waste (non-putrescible)'.</p>	<p>Refer Step 4.</p>

Appendix B

# NGER and WRAPPS reporting procedure



# Waste Classification Procedure

## 1.1 Distribution

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There are no restrictions on the distribution or circulation of this procedure within the Googong Water Cycle Stage A - Network project (east) (the Project).

## 1.2 Purpose

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This procedure details the requirements and actions to be taken to classify waste materials during all site activities.

## 1.3 Induction / training

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Where required, Project personnel will be made aware of this procedure as required through toolbox talks.

## 1.4 Scope

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This procedure is applicable to all activities conducted by the Project contractor or subcontractors where waste classification is required. The classification of wastes generated from the Project is to be in accordance with the *Waste Classification Guidelines* (DECCW, 2009).

## 1.5 Procedure

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<b>Step 1</b>	
Can the waste be recycled?	Reuse, Recycling, Disposal options
Some waste material can be recycled. This may include: <ul style="list-style-type: none"><li>• Steel.</li><li>• Cardboard/paper.</li><li>• Concrete.</li></ul>	<b>Recyclable materials:</b> If the material can be recycled, then it is to be segregated and stored separately for disposal in accordance with the relevant legislation and guidelines.
<b>Step 2</b>	
Is the waste special waste?	Reuse, Recycling, Disposal options

<b>Step 1</b>	
<p>Special waste is defined as (1) Clinical and related waste, (2) asbestos waste, (3) waste tyres. Clinical / related waste is typically associated with medical / dental / pharmaceutical practice and is unlikely to be generated on site.</p> <p>NOTE: Asbestos waste means any waste that contains asbestos. Where asbestos is mixed with other waste to form asbestos waste, it is not considered special waste and is to be assessed in accordance with steps 3 to 7 below. Asbestos waste can only be disposed of at a waste facility that can lawfully receive asbestos and the other class of waste with which it is mixed (if any).</p> <p>If unsure that the waste is / is not special waste then contact the environment officer for further advice.</p>	<p><b>Special waste:</b> If the waste is a special waste category then contact the environmental officer.</p> <p>Note: Special waste must be disposed of at a facility licenced to take that classification of waste.</p> <p>Special waste must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p>
<b>Step 3</b>	
<p>If the waste is not special waste (other than asbestos waste), establish whether the waste should be classified as liquid waste.</p>	<p>Reuse, Recycling, Disposal options</p>
<p>According to the waste classification guidelines, liquid waste is any waste that:</p> <ul style="list-style-type: none"> <li>• Becomes free flowing at or below 60°C or when transported</li> <li>• Is not generally able to be picked up by a spade or shovel.</li> </ul> <p>Liquid wastes typically include oils, fuels and must be stored correctly prior to disposal or reuse. Refer 'Storing Liquid Waste' fact sheet at: (<a href="http://www.environment.nsw.gov.au/resources/waste/storewas te05249.pdf">http://www.environment.nsw.gov.au/resources/waste/storewas te05249.pdf</a>)</p> <p>If liquid waste is mixed with another waste type (ie hazardous or solid waste) and retains the characteristics of liquid waste, the waste remains liquid waste.</p> <p>If the waste is not a liquid waste then proceed to step 4.</p>	<p><b>Liquid Waste:</b> If the waste is a liquid waste then contact the environmental officer.</p> <p>Note: Liquid waste must be disposed of at a facility licenced to take liquid waste.</p> <p>Liquid waste must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p>
<b>Step 4</b>	
<p>Is the waste pre-classified by OEH?</p>	<p>Reuse, Recycling, Disposal options</p>

Step 1	
The following wastes have been pre-classified in the OEH guidelines:	
<ul style="list-style-type: none"> <li>• Hazardous waste (see step 6)</li> <li>• Restricted solid waste</li> <li>• General solid waste (putrescible)</li> <li>• General solid waste (non-putrescible).</li> </ul> <p>Definitions of pre-classified wastes are included in the OEH Waste Classification Guidelines (December, 2009).</p> <p>General solid waste (non-putrescible) will be the typical waste generated on site. General solid waste (non-putrescible) can be classed into the following sub-classes:</p> <ul style="list-style-type: none"> <li>• Building and demolition waste</li> <li>• Garden waste</li> <li>• Virgin excavated natural material (VENM) and excavated natural material (ENM)</li> <li>• Wood waste.</li> </ul> <p>It is important to separate waste into its classifications and sub-classifications to maximise opportunities for reuse and recycling potential.</p>	<p><b>Hazardous waste:</b> See Step 5.</p> <p><b>Restricted solid waste:</b> If the waste is restricted solid waste then contact the environmental officer. Restricted solid waste must be disposed of at a facility licensed to take that waste type.</p> <p>Restricted solid waste must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p> <p><b>General solid waste (putrescible) and General solid waste (non-putrescible):</b> General solid waste (putrescible) and General solid waste (non-putrescible) must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p>
Step 5	
Does the waste possess hazardous characteristics?	Reuse, Recycling, Disposal options
<p>Waste must be classified as 'hazardous waste' if it is a dangerous good under Class 1, Class 2, Divisions 4.1, 4.2 and 4.3, Class 5, Division 6.1 or Class 8 as identified in the Australian Code for the Transport of Dangerous Goods by Road and Rail (National Transport Commission 2008).</p> <p>Refer OEH Waste Classification Guidelines (December, 2009) for further detail on hazardous waste material classes.</p>	<p><b>Hazardous waste:</b> If the waste is hazardous waste then contact the environmental officer. Hazardous waste must be disposed of at a facility licensed to take that waste type.</p> <p>Hazardous waste must be transported by a licensed transporter. Evidence of appropriate disposal, including quantities, must be provided to the environment officer.</p>
Step 6	
Determining a waste's classification using chemical assessment?	Reuse, Recycling, Disposal options
<p>Where a material cannot be easily classified as:</p> <ul style="list-style-type: none"> <li>• A special, liquid, or pre-classified waste, or</li> <li>• A waste possessing hazardous characteristics, or</li> <li>• The composition of the material is not known,</li> </ul> <p>it is to be chemically assessed to determine its classification. A licensed contractor will do this.</p>	<p>If the material cannot be easily classified, contact the environmental officer.</p> <p>The environment officer will determine if waste classification using chemical assessment is required.</p> <p>The chemical assessment will be undertaken by a specialist consultant who will provide a waste classification for the material as well as Reuse/ Recycling/ Disposal options.</p>
Step 7	
Determining a waste's classification using chemical assessment?	Reuse, Recycling, Disposal options

<b>Step 1</b>	
<p>Where chemical assessment of a waste results in classification of the waste as general solid waste, further assessment may be undertaken to determine whether the waste can be classified as 'general solid waste (putrescible)' or 'general solid waste (non-putrescible)'.</p> <p>The activities identified in Step 4 shall be followed for material classified as 'general solid waste (putrescible)' or 'general solid waste (non-putrescible)'.</p>	Refer Step 4.