

These tables set out the operational controls required to achieve the objectives and targets set out in Environmental Program 14 Waste Management. BBA will, as a minimum, implement the control activities and performance measures set out below.

Table OCO 14.1 Waste Management

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Ref	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
INDUCTION AND TRAINING							
1.	Design Consultant briefing	CEMP 10	The Design Consultants will be briefed on the design aspects of this Control Document	Design Director	Prior to start of design.	Briefing record	
2.	Project and site induction	CEMP 13	All employees, consultants and subcontractors involved will be inducted into the environmental aspects and controls related to this Control Document. The induction will emphasise: <ul style="list-style-type: none"> • Importance of waste minimisation • Waste management requirements on site 	Construction Director or Project Manager, as applicable Start up Manager for Early Works	Prior to personnel commencing work on site	Induction records	
3.	Staff Construction Environmental Management Plan induction	CEMP 13	All relevant staff will be inducted into the requirements of the Construction Environmental Management Plan and all associated documents.	Construction Director or Project Manager, as applicable	Prior to staff commencing work on site	Induction records	
4.	Awareness training	CEMP 13 CEMP 14	Conduct awareness instruction of relevant BBA staff, contractors and field personnel.	Project Manager	As per Training Plan	Training records	
5.	Briefings	CEMP 13 CEMP 14	Environmental briefings shall emphasize site-specific Waste Management requirements.	General Superintendent	Prior to working in a specific area	Record of Briefing (eg SEP Briefing)	
DESIGN							
6.	Use modular approach	Project Requirement	If practicable, the designers shall use a “modular” approach (standard sizes)	Design Director	Design Phase	Design verification	

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7.	Packaging materials	Project Requirement	Supply specifications will include requirements to minimise the use of packaging materials	Procurement Manager	Procurement	Volume of waste packaging	
8.	Maximise pre-cast concrete use	Project Requirement	Wherever possible, maximise the use of precast concrete.	Design Director	Design Phase	Design Verification	
PRE-CONSTRUCTION							
9.	Subcontract agreements include waste requirements	Project Requirement	Subcontract agreements shall include provisions for waste avoidance and/or reduction, waste reuse, recycling and reclamation, waste treatment and waste disposal, no use of ozone depleting substances.	Contract Manager	Subcontract Negotiations	Subcontract	
10.	Appropriate approvals obtained	EMPC Act 2004	Appropriate approvals shall be obtained for the disposal of controlled waste.	Environmental Manager	Initial site preparation	Approvals obtained	
11.	Use licensed contractors	EMPC Act 2004	Only appropriately licensed (Waste transport business environment protection notices) contractors shall handle and transport controlled (including contaminated) waste.	Contract Manager	Initial site preparation	WTB-EPNs	
12.	Waste storage areas encourage separation	Project Requirement	All waste storage areas shall be designed to encourage separation of recyclable material.	General Superintendent	Initial site preparation	Waste storage area configuration	
13.	Clearly signed designated waste storage areas	Project Requirement	Designated waste storage areas shall be clearly signed showing the type of waste and related precautions (hazardous substances /dangerous goods).	General Superintendent	Initial site preparation	Signage of areas	
CONSTRUCTION							
Construction waste landfill cell							

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14.	Onsite landfill available	LU1, Part 3, Sect 4, 4GN7.3, pg 139, (Seq pg 152)	A dedicated onsite landfill cell will be constructed to receive all inert construction waste from the project. No controlled waste, liquid waste, putrescible waste, organic waste or treatment plant sludge may be disposed of in the landfill.	General Superintendent	Prior to significant construction waste generation	Landfill cell constructed	
Housekeeping							
15.	Keep site clean and tidy	Project Requirement	The site shall be maintained in a clean and tidy condition.	General Superintendent	Ongoing	Site clean and tidy	
16.	Keep site free of litter	Project Requirement	The site shall be kept free of litter.	General Superintendent	Ongoing	Site free of litter	
17.	Keep public areas unobstructed	Project Requirement	Areas where the project interacts with public areas, such as footpaths, etc shall be kept tidy and unobstructed.	General Superintendent	Ongoing	Public areas unobstructed	
Waste avoidance							
18.	Determine requirements before purchase	Project Requirement	Before purchasing any materials, accurately determine the requirements for the scope of works.	Contract Manager	Ongoing	Dockets Waste Register	
19.	Order only quantity required	Project Requirement	Only order the quantity of material required for the specific purpose and not over-orders.	Contract Manager	Ongoing	Dockets Waste Register	
20.	Purchase materials in bulk where Possible	Project Requirement	Materials to be purchased in bulk where possible to minimise packaging.	Contract Manager	Ongoing	Purchase records Waste Register	
21.	Coordinate use of raw materials between sites	Project Requirement	The use of raw materials is to be coordinated between sites (eg plywood, noise hoarding, site fencing and formwork for concrete) to reduce waste.	General Superintendent	Ongoing	Materials shared	
Waste reuse							

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22.	Materials to be collected separately	Project Requirement	Wood packaging, pallets formwork and off-cuts, and cardboards and plastic wrapping are to be placed in separate bins and collected for recycling.	General Superintendent	Ongoing	Materials segregated	
23.	Excavated material and spoil to be reused	Project Requirement	All excavated material and spoil shall be utilised during construction.	General Superintendent	Ongoing	Excavated material and spoil utilised	
24.	Vegetative material to be mulched	Project Requirement	Leaf material and other cleared vegetation shall be mulched.	General Superintendent	Ongoing	Material mulched	
25.	Fuel and lubricant containers to be collected for reuse	Project Requirement	Fuel and lubricant containers are to be collected by a drum recycler for cleaning and reuse.	General Superintendent	Ongoing	Drums recycled Waste Register	
26.	Reuse wastewater contained on site	Project Requirement	Wastewater retained onsite (sediment basins) will be reused where practicable on the worksites for dust suppression, wheel wash etc.	General Superintendent	Ongoing	Water reused	
Waste recycling							
27.	Separate recyclable materials where practicable	Project Requirement	Recyclable waste materials shall be separated into dedicated bins/ areas where practicable, for either reuse on-site or collection by a waste contractor and transport to off-site recycling facilities.	General Superintendent	Ongoing	Waste separated Subcontract Agreement	
28.	Materials sorted offsite where separation not practicable	Project Requirement	Where space is not available on the worksite(s) for placement of multiple bins, all wastes are to be deposited into one bin and sorted off-site by a waste contractor.	General Superintendent	Ongoing	Wastes sorted Subcontract Agreement	
29.	Scrap metal segregated	Project Requirement	Scrap metal is to be segregated into ferrous and non-ferrous bins for collection by a scrap metal contractor for recycling.	General Superintendent	Ongoing	Waste register	

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Ref	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
30.	Use recycled materials where practicable	Project Requirement	Use of recycled materials (to the limits of design) in concrete, road base, asphalt and other construction materials.	Project Manager	Ongoing	Recycled materials used	
31.	Waste oil, grease and lubricants to be collected for recycling	Project Requirement	Lubricants, oil, grease and radiator fluid shall be collected for recycling. Lubricants, oil and fluids for collection will be separated and kept in appropriate receptacles within a bunded area.	Plant Manager	Ongoing	Waste register	
32.	Tyres to be collected for recycling	Project Requirement	Tyres shall be stored for collection and recycling.	Plant Manager	Ongoing	Waste Register	
Waste disposal							
33.	Dispose of waste in accordance with guidelines	Project Requirement	Non re-useable and recyclable wastes are to be classified and disposed of in accordance with the DTAE guidelines.	General Superintendent	Ongoing	Waste register	
34.	Maintain Waste Register	Project Requirement	A Waste register will be maintained for all waste that The types of waste, destination and receipt by the disposal site are to be recorded and in the Waste Register	Environmental Manager	Ongoing	Waste register	
35.	Inert construction waste to onsite landfill	Project Requirement	Inert construction waste that cannot be reused or recycled will be disposed of to the construction waste cell of the onsite landfill. The types of waste, destination and receipt by the disposal site are to be recorded and in the Waste Register	General Superintendent	Prior to significant construction waste generation	Appropriate waste to onsite landfill	

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36.	Putrescible waste	Project Requirement	No putrescible waste will go to the onsite construction waste landfill cell but will be taken for disposal at an appropriately licensed municipal landfill.	General Superintendent	Ongoing	Waste register	
37.	Waste collection trucks appropriately licensed	Project Requirement	All trucks transporting wastes off-site are to be appropriately licensed to carry the materials to appropriately licensed waste facilities.	General Superintendent	Ongoing	Waste register	
38.	Skips at all sites and compounds and regularly emptied	Project Requirement	Waste skips are to be provided at all construction sites and site compounds and are to be regularly removed / emptied.	General Superintendent	Ongoing	Waste register	
39.	Hazardous waste managed appropriately	EMPC Act 2004	Any hazardous waste is to be managed by a licensed (waste transport business environment protection notice) contractor and handled and transported for disposal to a DTAE approved site.	General Superintendent	Ongoing	WTB-EPN	
40.	Chemical wastes stored and managed appropriately	Project Requirement	Chemical wastes are to be placed in sealed drums for collection by a waste contractor and off-site treatment or management in accordance with the manufacturer's instructions. Empty drums are to be disposed of as prescribed waste.	Environmental Manager	Ongoing	Waste register	
41.	Burning	DIIS	There will be no burning of waste other than approved controlled burning of vegetation	General Superintendent	Ongoing	Burning approvals	
42.	Toilet facilities	LU1, Part 3, Sect 5, 5WM4.1, pg 157, (Seq pg 170) LU1, Part 3, Sect 6, 6WM4.1, pg 166, (Seq pg 179)	Portable toilet facilities will be provided and maintained at all major work sites, including major watercourse crossings and hydrotest locations.	General Superintendent	Ongoing	Inspection records	

Water

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Ref	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
43.	Water reuse	Project Requirement	Reuse water on-site to the maximum extent practicable	General Superintendent	Ongoing	Water recycled	
44.	Wheel cleaning facilities to use recycled water where practicable	Project Requirement	Wheel cleaning facilities, if practicable, shall use recycled water at each work site.	General Superintendent	Ongoing	Water recycled	
45.	Sewage to be removed by licensed contractors, where necessary	Project Requirement	If sewer is not available, sewage from sanitary amenities is to be discharged to holding tanks for removal by licensed (waste transport business environment protection notice) waste contractors.	General Superintendent	Ongoing	Holding tanks used WTB-EPNs	
46.	Contaminated water	Project Requirement	All potentially contaminated water will be collected and either treated on site or removed by licensed (waste transport business environment protection notice) waste contractors.	General Superintendent	Ongoing	Treatment or tanks used WTB-EPNs	
Excavation							
47.	Reuse and disposal of material detailed in SEP	Project Requirement	Prior to excavation works the reuse and disposal of material is to be detailed in the Site Environmental Plan.	Environmental Manager	Site Environmental Plan preparation	Site Environmental Plans	
48.	Spoil to be used as fill	Project Requirement	Generally all excavated material will be used in fill.	General Superintendent	Construction planning	Spoil used as fill	
49.	Topsoil reused	Project Requirement	Topsoil suitable for reuse (i.e. free of weeds, uncontaminated) is to be segregated for stockpiling and use in landscaping where practicable.	General Superintendent	Construction planning	Topsoil stockpiled	

Ref	Subject	Reference	Control Activity	Responsibility	Timing	Performance Measure	Audit Check
Demolition waste							
50.	Demolition waste reused / recycled	Project Requirement	Demolition waste shall be reused / recycled where practicable. The demolition contractor is to be instructed to segregate and arrange for collection of demolition waste for reuse / recycling.	General Superintendent	Demolition activities	Waste reused/ recycled	
INCIDENTS							
51.	Potential environmental harm	CEMP incident response procedures	<p>Class 1: <i>An actual adverse effect on the health or safety of human beings that is of a high impact or on a wide scale; an actual adverse effect on the environment that is of a high impact or on a wide scale; an actual loss or property damage of an amount, or amounts in aggregate, exceeding ten times the threshold amount (\$5,000); an environmental nuisance of a high impact or on a wide scale; an actual adverse effect on the health or safety of human beings that is not negligible; an actual adverse effect on the environment that is not negligible - cease relevant activities across all sites until the problem is fully understood and rectified; follow incident response procedures</i></p> <p>Class 2: <i>The emission of a pollutant that unreasonably interferes with, or is likely to unreasonably interfere with, a person's enjoyment of the environment; any emission specified in an environment protection policy to be an environmental nuisance; an actual loss or property damage of an amount, or amounts in aggregate, exceeding the threshold amount (\$5,000) - cease relevant activities at the site of occurrence until the problem is rectified; follow incident response procedures</i></p>	Environmental Manager	Ongoing	Incident response records	

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52.	Potential permit breach	CEMP incident response procedures	<p>Class A: <i>A permit condition has been breached and either the environmental consequences are significant or the breach is due to a wilful or negligent failure to attempt to satisfy the condition</i> – cease relevant activities across all sites until the problem is fully understood and rectified; follow incident response procedures</p> <p>Class B: <i>A permit condition has been technically breached but the intent of the condition has been or will be achieved and environmental consequences of the breach are not significant</i> – cease relevant activities at the site of occurrence until the problem rectified; follow incident response procedures</p> <p>Class C: <i>Compliance with the permit has been raised as an issue but the intent and requirements established by the permit condition have been met</i> – examine the significance and potential for corrective action; follow incident response procedures</p>	Environmental Manager	Ongoing	Incident response records	
EVALUATING PERFORMANCE							
53.	Inspections	CEMP 16	Inspect the condition of protection and control measures and arrange maintenance, as required.	Site Environmental Officer	Daily	Weekly Checklist	
54.	Reporting	CEMP 17	Report on the implementation of this EP in the environmental section of the monthly Project Report.	Environmental Manager	Ongoing	Monthly Report	
55.	Assess monitoring results	CEMP 19	Evaluate and assess monitoring results against specified targets	Environmental Manager	Ongoing	Reports	
56.	Corrective action	CEMP 19	Take corrective action, where required	Project Manager	As required	Action taken	

Definitions

Controlled waste - Controlled waste is the most hazardous category of waste and includes those wastes that exhibit toxicity, chemical or biological reactivity, environmental persistence, or the ability to bio-accumulate or enter the food chain.

Revision Status

Revision	Date	Revision Description	Prepared	Reviewed	Approved
A0	27 April 2007	Draft for BBA review	IW		
A1	9 May 2007	Draft for DTAE review	IW		
B0	22 October 2007	Revised for submission to DTAE following auditor's comments	IW	JD	JC
B3	30 January 2008	Revised to include inspection frequency	JRD	JD	CF