

Construction Environmental Management Plan Milk Processing Facility Quarry Road	Rev	Prepared by	Prepared on	Checked by	Checked on	Approval by	Approval on
	1	MR	22.08.13	BC	22.08.13		

Construction Environmental Management Plan

This Construction Environmental Management Plan (CEMP) is a preliminary document that has been prepared to support the Environmental Impact Statement (EIS) for a proposal by Murray Goulburn Co-operative Ltd (MGC). The proposal is to construct and operate a milk processing facility at 111-113 Quarry Road, Erksine Park (the Proposal). This CEMP is a dynamic document in which ongoing revisions will be undertaken following:

- (1) The appointment of the construction contractor(s) who will undertake the construction works;
- (2) The initiation and completion of stages of construction works, and
- (3) The required changes to the nature, timing and location of works.

This CEMP has been developed in accordance with the EIS for the Proposal, in particular, the environmental assessment chapters (**Chapter 6.1 to 6.15**), and the Statement of Commitments in **Chapter 7**. The mitigation measures mentioned in this CEMP are consistent with the Statement of Commitments referred to in Chapter 7 of the EIS.

Scope

The scope of the Construction Environmental Management Plan (CEMP) is as follows:

- Purpose;
- Location;
- Timing;
- Construction hours;
- Key personnel;
- Community, stakeholder and media interaction;
- Construction works, and
- Mitigation measures.

Purpose

A description Purpose of the Construction Environmental Management Plan (CEMP) is to describe the specific environmental management measures to be implemented during the construction of the Milk Processing Facility Quarry Road Project (the Project). This CEMP has been developed in accordance with the Environmental Impact Statement (EIS) for the Project, the Protection of Environment Operations Act 1997 and other relevant legislation and policies.

Location

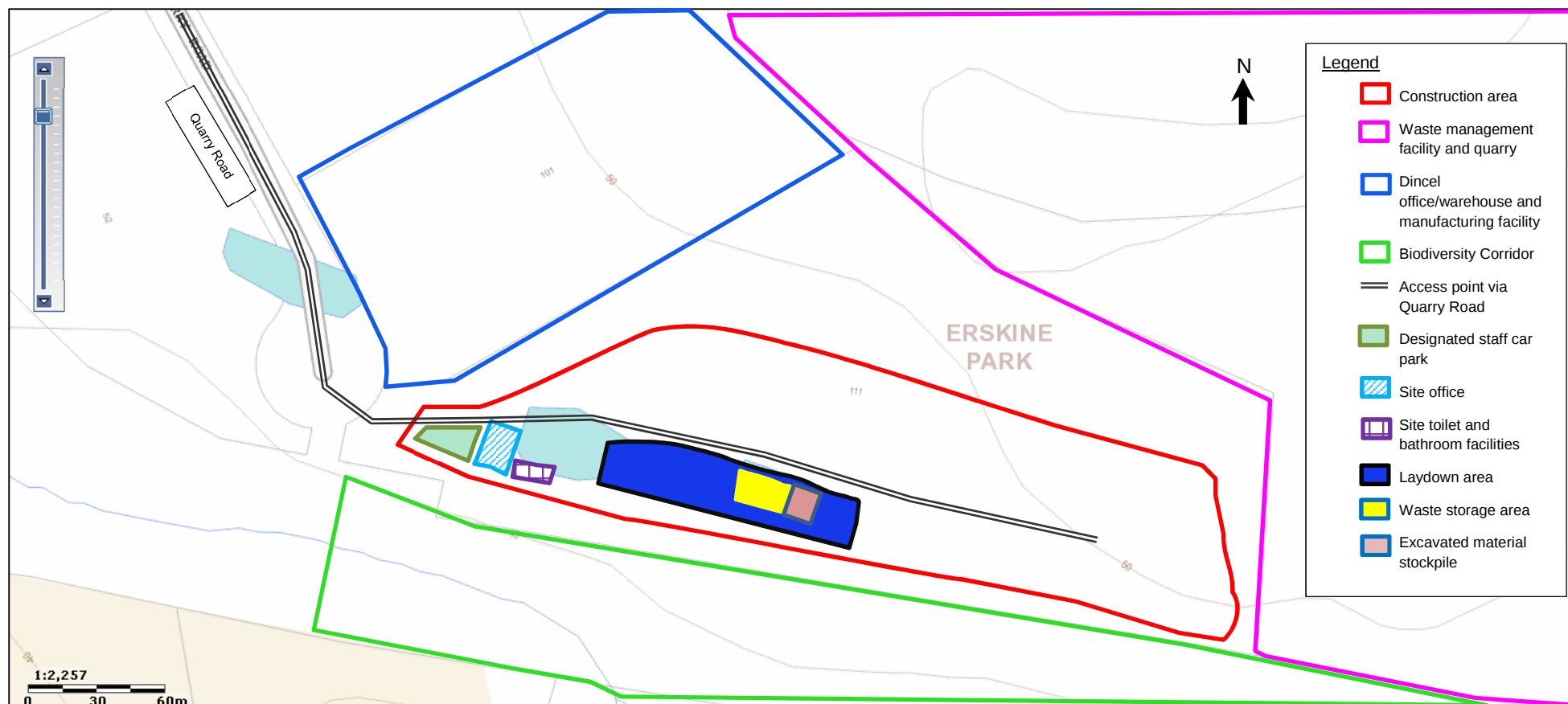
The construction works will be undertaken within a property at 111-113 Quarry Road at Erskine Park. The property is an irregular shaped allotment of approximately 5.077ha situated within a newly constructed industrial subdivision in the Erskine Park Business Area, in the Local Government Area of Penrith. 18km. The site is approximately 11.3km south-east of Penrith.

Access to site is via Quarry Road via James Erskine Drive and Mamre Road.

Figure 1 shows the approximate location of the site, site office and access point.

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Figure 1. Location of the Proposal construction area and access point



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Timing

The Proposal is anticipated to take 40 weeks to complete.

Construction hours

Site construction will be undertaken during the following working hours:

- Monday to Friday, 0700 to 1800;
- Saturday, 0700 to 1300; and
- No works on Sundays or public holidays.

Any work to be undertaken outside the above hours will require approval and notification to affected neighbours.

Key personnel

Table 1 provides a list of key personnel including roles and contact details.

Table 1. Key personnel (to be update prior to construction commencing)

	Project Manager	
Nigel Worne	Senior Site Manager	0419 599 581
	Site Foreman	
	Site Safety Representative	
	Environmental Officer	

Community, stakeholder and media interaction

A Communications Plan will be implemented at all times. This document will provide guidance on dealing with community, stakeholder and media interaction that may occur during construction of the Proposal.

The Communications Plan will include a community engagement process to keep the community informed during the construction, a community engagement process (neighbouring businesses, local regulating authorities).

The Communications Plan will also include as procedure for receiving and responding to complaints, questions and comments made by a member of the community, stakeholders or the media. This procedure will be reviewed and approved by MGC.

The procedure will relate to the registering and handling of all complaints received in terms of:

- Time and date complaint relates to and the time and date complaint received;
- The identity of the complainant and the recorder of the complaint;
- The specific action or activity causing the complaint including the place and time of occurrence
- Whether environmental compliance requirements are being met in relation to the complaint;
- The action taken to address the complaint if necessary;
- A database for tracking of complaints and actions taken in response;
- Immediate communication of the complaint to the contractor's nominated representative;
- Details on how the action taken is to be communicated to the complainant and MGC and if necessary, to the Construction Contractor;

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- Feedback to the complainant and the Proponent and the EPA within a specified time period;
- Any subsequent remedial action required to avoid cause for future complaints if relevant;
- Regular reporting to the EPA and the Proponent on complaints and corrective actions; and
- Monitoring and auditing of the complaint handling system.

Table 2 provides a summary of mitigation measures related to community, stakeholder and media interaction.

Table 2. Mitigation measures for community, stakeholder and media interaction

Mitigation measures
Consider neighbours' privacy and amenity at all times.
Do not access land unless absolutely necessary and until permission is granted.
Ensure access/egress for surrounding properties is maintained and not impacted by works.
Ensure no swearing, shouting and use of amplified music in close proximity to neighbours.
Do not leave vehicles and plant idling.
Minimise reversing of vehicles for safety and to limit noise from alarms.
Position lights on site to prevent light spill from neighbours.
Implement appropriate dust management measures, particularly during high wind or when dust plumes are visible.
Any work that will be undertaken outside construction hours will require approval prior to the undertaking of these works. Affected neighbours will be notified at least 5 working days before these works occur.

Construction works

The Proposal will comprise of the following stages:

- Stage 1: Detailed earthworks
- Stage 2: Installation of drainage systems
- Stage 3: Assembly of structures and external cladding
- Stage 4: Internal factory space/room construction
- Stage 5: Reticulation of utility services
- Stage 6: Installation of passive services
- Stage 7: External works
- Stage 8: Landscaping and fencing

Table 3 summarises the construction works for each stage of construction.

Table 3. Construction works

Description	Plant and equipment	Timing
Stake 1: Detailed earthworks		
This would involve precise contouring of the site from the initial bulk excavation levels to produce the final shape of the site, suitable for the placement of drainage systems (both civil and sewer), concrete (internal and external) and	• Excavators • Trucks • Graders • Rollers	

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asphalt (external).		
Stake 2: Installation of drainage systems		
This would involve the establishment of the extensive in ground drainage systems located under the buildings. This includes a new pit and in ground pipe network to a common location on site.	- Excavators - Trucks	
Stage 3: Assembly of structures and external cladding		
This would involve the assembly of approximately 400 tonnes of structural steel comprising individual columns, beams and trusses to form the building superstructure. The columns would be established on the piles which were constructed during the Early Works. These piles are modified to include capped concrete pads into which bolts have been cast. The columns would be locked down onto these bolts. The building roof is then laid in order to stabilize the structure and also provide a protected working environment. Architectural fascia cladding is also added to further weather proof the building. The ground and mezzanine levels would feature in situ concrete floors, which form the working platforms on which future equipment is installed.	- Cranes - Concrete pumps - Excavators - Access equipment	
Stage 4: Internal factory space/room construction		
This would involve the establishment of internal walls within the main factory building. The building would be divided up internally with walls, creating separate work spaces. Wall construction generally comprises preformed insulated interlockable panels and perimeter concrete walls. The food production and storage rooms are capped with the same material which forms the ceilings. This panel is suspended by means of cabling from the steel superstructure above. This internal ceiling also forms a pedestrian trafficable workspace above the rooms below. Service droppers will be penetrating the ceilings to service the work areas.	- Forklifts - Cranes - Access equipment	
Stage 5: Reticulation of utility services		
This would involve the reticulation of utility services including electricity, telecommunications, gas and water. As such these primary utility services are brought into the site underground to central points from where they are distributed to the wide variety of end user requirements. Most services are hidden in the space between the main structural roof and work space ceiling below. They are distributed neatly along predesigned cable tray routes and	Access equipment	

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pipe gantry systems.		
Stage 6: Installation of passive services		
This would involve the installation of passive services such as fire detection and prevention systems and secondary services reticulation. These include fire early detection and suppression systems such as smoke detectors, factory exhaust, sprinklers, fire hydrants and hose reels.	• Trucks • Concrete pumps	
Stage 7: External works		
This would involve developing the areas external to the factory buildings to allow operation of the facility including access for vehicles, refrigerated trucks and milk tankers. A network of concrete pits with underground interconnected pipe work is constructed to convey rain water away from the buildings and trafficable areas. This water is deemed clean and can be safely discharged to the local municipal storm water drainage system. Internal roadways and small vehicle parking zones are bounded by concrete kerbing with asphalt wearing courses. Areas where heavy or large vehicle park or turn require a more durable pavement type which is constructed from concrete. Light duty pedestrian access only walkways are constructed from concrete.	• Pumps • Excavators • Haulage Trucks • Asphalt paving machines.	
Stage 8: Landscaping and fencing		
The final building works phase of construction is to make good to the rest of the unimproved site and secure the whole premises for traffic management and general public access control. Internal soft and hard landscaping materials are placed to infill unused areas of the site and to architecturally conceal and soften the general appearance of the facility. A whole perimeter chain mesh fence incorporating segregated in and out bound drive ways complete with gated access control locations are constructed adjacent to the road accessible boundary in Quarry Road.	• Excavators • Trucks • Asphalt paving machines.	

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Mitigation measures

Table 4 summarises the mitigation measures to be implemented during construction.

Table 4. Mitigation measures

Mitigation measures	Responsibility	Reference document
Air quality		
Construction dust impacts would be managed through implementation of the following mitigation measures: - Spoil handling, storage and loading will be undertaken in a manner that will minimise the generation of dust. - Maintaining active road surfaces and application of water as a suppressant; - Damping exposed areas where there is any visible dust lift off; - Limit vehicle speeds; - Limit vehicle movement on site to defined roads; - Regular maintenance of vehicles, plant and equipment as per manufacturer's recommendations; - Minimising mud/soil tracking on public roads; - Regularly monitoring (visual observations) of dust generation during construction works (particularly earthworks); and - Establishing suitable groundcover at completed sections of the site as soon as practicable.	All personnel	EIS
Bushfire		
The storage of flammable or dangerous chemicals will be located at least 40m from the Biodiversity Corridor.	All personnel	EIS
During hot, dry periods or periods where there is a high potential for bushfire, regular monitoring of bush fire prone vegetation (such as in the Biodiversity Corridor) will be undertaken.	All personnel	EIS
Ecology		
The boundaries of the construction area will be cleared defined on the ground. Areas outside this boundary are considered 'No Go' areas in which no works, activities, vehicle access, parking or laydown of any material will be undertaken.	All personnel	EIS
A weed control procedure will be developed and implemented to control any noxious weed infestations onsite, and prevent weed spreading to the Biodiversity Corridor.	All personnel	EIS
When accessing the construction site, all personnel are to use designated access tracks.	All personnel	EIS
All equipment, vehicles and machinery will be cleaned prior to leaving the site.	All personnel	EIS
All fauna incidents during working hours including spotting fauna	All personnel	EIS

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onsite will be recorded and the Senior Site Manager will be advised.		
No fill or any material of indeterminate origin will be imported or used onsite. Any imported VENM material will require a certificate the signifies that it is VENM.	All personnel	EIS
Ground conditions and surface water		
Undertake an erosion risk assessment that identifies surface drainage, flow paths, suitable stockpile locations, soil cover type and soil stability. Progressive ERSED Control Plans will be developed in accordance with the outcomes of this erosion risk assessment, the EIS and the <i>Blue Book; Managing Stormwater: Soils and Construction</i> (Landcom, 2006) and implemented. The Progressive ERSED Control Plans will be regularly updated with relevant controls as the stages of construction are progressed.	All personnel	EIS
Erosion and sediment controls will be implemented to ensure dirty surface water (sediment laden) from the construction site are contained onsite until settling of sediment has occurred.	All personnel	EIS
Erosion and sediment controls will be undertaken in accordance with the Progressive ERSED Control Plans and the <i>Blue Book; Managing Stormwater: Soils and Construction</i> (Landcom, 2006).	All personnel	EIS
Sediment and erosion controls will be implemented prior to commencement of works. Regular routine maintenance of all ERSED controls will be undertaken.	All personnel	EIS
Site inspections will be undertaken regularly (at minimum, weekly or fortnightly). These site inspections will involve assessing the effectiveness of existing ERSED controls, assessing the need for additional ERSED controls and providing recommendations for updating/changing/adding ERSED controls as relevant to the current and planned construction works.	All personnel	EIS
Where groundwater is observed during construction works, all works will be stopped immediately and the Senior Site Manager will be notified immediately. Management measures will be identified and implemented to ensure avoidance of groundwater contamination.	All personnel	EIS
If temporary stockpiles are required they will be located above the 10 year ARI flood level, more than 40m away from a waterway or concentrated flow path, and on slopes less than 10 per cent.	All personnel	EIS
The waste storage area will be properly bunded to protect the surrounding area, particularly the Biodiversity Corridor.	All personnel	EIS
Monitoring of mud/soil tracking on Quarry Road and Mamre Road will be undertaken regularly. Any tracking as a result of construction works will be cleaned up via street sweeper as necessary.	All personnel	EIS
Vehicle washdowns and cement washout areas will occur within bunded areas.	All personnel	EIS
All trucks will be covered, and if necessary, treated via spraying,	All personnel	EIS

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prior to leaving/entering the site.		
Wastewater from a bunded area will be pumped out using a sucker truck and disposed of properly by a licenced waste management facility.	All personnel	EIS
Contingency plans will be developed and implemented during inclement or severe weather.	All personnel	EIS
Procedures for site close out for weekends or extended periods of no construction work will be developed and implemented.	All personnel	EIS
Erosion and sediment controls will not be removed until disturbed areas have at least 70% ground cover and no active soil erosion is visible.	All personnel	EIS
Disturbed areas and permanent stockpiles will be progressively stabilised through the use of vegetation/seeding, jute mesh, bitum or a combination of methods. The preferred method is establishment of vegetation.	All personnel	EIS
Ground disturbance will be minimised as much as possible.	All personnel	EIS
Clearing of topsoil will be limited to the designated footprint required for all the works.	All personnel	EIS
Material stockpiles will be formed in a manner that reduces the impact of wind and water erosion. Slopes of 2:1 max and less than 2m in height.	All personnel	EIS
Hazards		
An Incident and Emergency Response Procedure will be developed and implemented to ensure proper incident response from personnel will occur during a spill or leak incident. This procedure will be communicated to all personnel to ensure they are trained. The procedure will be readily accessible and displayed in the site office and kitchen/meal areas.	All personnel	EIS
An Emergency Response Plan will be developed and implemented. This plan will include a map clearly defining the access routes for pedestrians, vehicles and emergency vehicles; evacuation points, evacuation assembly areas and the location of any fire fighting equipment such as fire extinguishers.	All personnel	EIS
Staff will be trained to respond to any incidents related to spills or leaks including the use of spill kits.	All personnel	EIS
An appropriate number of spill kits will be located throughout the site. All spill kits will be located at close proximity to storage and handling areas. All spill kits will be regularly checked and re-stocked if necessary.	All personnel	EIS
All potentially hazardous materials and dangerous goods will be stored in approved internally bunded storage containers (with impervious flooring) and MSDS records maintained onsite. Storage containers will comply with Australian Standards including AS1940:	All personnel	EIS

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Storage and Handling of Flammable and Combustible Liquids, and AS3780: The Storage and Handling of Corrosive Substances. Storage containers will have capacity to capture 110% of the volume of the largest container being stored.		
A register will be maintained for all potentially hazardous materials and dangerous goods. The register will include the names, classifications and MSDS reference of these materials/goods.	All personnel	EIS
No storing of hazardous materials and dangerous goods including diesel/fuel containers at drainage lines or within 40m from a waterway.	All personnel	EIS
No refuelling to be undertaken at drainage lines or within 40m from a waterway.	All personnel	EIS
During excavation, all workers will monitor for the following indicators of contamination: • Asbestos • Discolouration or odour of soil • Discarded exploded material • Presence or storage of bulk liquid dangerous goods onsite • Illegal and/or controlled landfills Should any of these be observed, sampling and analysis of the soil will be required.	All personnel	EIS
Should any contaminated material (including asbestos) be observed, all works will stop immediately and the Senior Site Manager will be notified immediately. No personnel are to handle contaminated material. If necessary, the Senior Site Manager or delegate will notified the EPA.	All personnel	EIS
In the event that excavated material is to be removed from site, this material will need to be sampled, analysed and classified for proper disposal.	All personnel	EIS
Contaminated soil will be separately stockpiled.	All personnel	EIS
Any beneficial reuse of spoil will be in accordance with the National Environment Protection Measure.	All personnel	EIS
Only licenced contractors for contamination and asbestos removal will be used and site personnel will be restricted from clean up areas during removal works.	All personnel	EIS
A copy of the consignment note and receipts for all waste disposed will be maintained.	All personnel	EIS
All spills and incidents will be reported to the Senior Site Manager.	All personnel	EIS
Clean up and remediation will be undertaken as soon as possible following identification, assessment and confirmation of material. Any impacted soil will be removed from site and disposed of by an	All personnel	EIS

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approved facility.		
Noise and vibration		
Where practicable, simultaneous operations of high noise generating equipment such as excavators,) will be undertaken after 9am on weekdays and Saturdays.	All personnel	EIS
Where possible, trucks associated with the work will not be left standing with their engine running in a street adjacent to a residential area.	All personnel	EIS
Plant, equipment and vehicles that are not in use will be shut down.	All personnel	EIS
Noise monitoring will be undertaken upon receiving a complaint to identify and quantify the issue and determine options to minimise impact.	All personnel	EIS
A community liaison phone number and permanent site contact will be signposted at the front of the site.	All personnel	EIS
Traffic and transport		
The Traffic Management Plan (TMP) will be developed in accordance with recommendations from the Traffic Impact Assessment and standards and policies of Penrith City Council and the NSW Roads and Maritime Services. The TMP will be developed and implemented to control high volume truck movements and mitigate and manage the potential impacts of construction traffic on the road network.	All personnel	EIS
All personnel will be briefed and trained on appropriate access and egress to site and within site on a daily basis.	All personnel	EIS
Maintain safe and efficient access to sites for emergency vehicles.	All personnel	EIS
Access for vehicles and pedestrians will be clearly defined.	All personnel	EIS
Truck deliveries for the site will be undertaken during construction hours only. As much as possible, deliveries will not be undertaken during peak traffic periods.	All personnel	EIS
Trucks will use established truck routes and arterial roads for the haulage of construction materials.	All personnel	EIS
Adequate signage will be installed to signify designated parking areas and to manage vehicle and pedestrian movements.	All personnel	EIS
Visual		
All work sites and offices will be kept in a tidy condition and maintained within clearly defined boundaries.	All personnel	EIS
Installation of screening around work site boundaries to ensure safety for pedestrians and cyclists, and discourage sightseeing and congestion to roadways and footpaths.	All personnel	EIS
Disturbed areas will be rehabilitated as soon as possible.	All personnel	EIS

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All rubbish will be picked up and thrown in appropriate bins or designated stockpile areas at the end of each working day.	All personnel	EIS
Waste management		
Waste will be managed in accordance with the resource management hierarchy principles in the <i>Waste Avoidance and Resource Recovery Act 2001</i> , the Waste Classification Guidelines: Parts 1 and 2 (DECC 2008) and the Waste Management Plan.	All personnel	EIS
In the first instance, all waste materials will be re-used or recycled before being disposed of.	All personnel	EIS
Consideration of the procurement of materials and products that have recycled content.	All personnel	EIS
The use of packaging materials will be minimised and where possible packaging products will be recycled or returned to the manufacturer.	All personnel	EIS
All personnel will be trained to efficiently use resources. This will be promoted and will form part of inductions.	All personnel	EIS
All personnel will be trained of the proper disposal and recycling of waste material in correct bins, stockpiles and bunded areas. Material segregation will be highlighted in inductions.	All personnel	EIS
All waste materials will be disposed of by a licenced waste management facility. All records of waste disposal and recycling will be tracked (docket system) and recorded, and reported.	All personnel	EIS
Waste storage and segregation bins will be located away from neighbours.	All personnel	EIS
Portable toilet and bathroom facilities will be provided on site and will be maintained by an appropriate licensed contractor.	All personnel	EIS
Concrete washouts (if required) will be located and built in consultation with the Senior Site Manager. Concrete washouts will be built prior to the concrete arriving on-site.	All personnel	EIS
Good housekeeping (cleanliness) will be employed on a daily basis. All worksites will be kept neat and tidy and free of rubbish. Cigarette butts will be put out and appropriately disposed of in bins provided.	All personnel	EIS
Heritage		
A suitable Unexpected Finds Protocol will be developed and implemented. The protocol will contain steps to be taken when a discovery of human remains occurs.	All personnel	EIS
A suitable Unexpected Finds Protocol will be developed and implemented. The protocol will contain steps to be taken when a discovery of potential heritage items and artefacts occurs.	All personnel	EIS