

Issue	Clause No	Description of Issue	Authorised By	Date
1	All	First Revision	Lincoln Redgen	3/07/2025

## 1 PURPOSE AND SCOPE

Durack Civil Construction Environmental Management Plan (CEMP) identifies all the appropriate environmental measures to be controlled & documented. Compliance with this CEMP will be checked weekly using the Environmental Checklist, which is incorporated as part of our Project Management Plan (PMP).

## 2 LEGISLATION, LICENSES AND PERMITS

This CEMP has been developed with reference to relevant environmental legislation, regulations and policies, including:

- *Environmental Protection Act, 1994* (and associated legislation);
- *Aboriginal Cultural Heritage Act, 2003*;
- *Environmental Protection and Biodiversity Act, 1999* (and associated legislation);
- *Nature Conservation Act, 1992*;
- *Water Act, 2000*;
- *Sustainable Planning Act, 2009*;
- *Waste Reduction and Recycling Act, 2011*;
- *Vegetation Management Act, 1999*.
- *Weeds Management Act 2001*
- *Toowoomba Regional Council (TRC) Conditions*



## 3 DOCUMENTATION

- Erosion and Sedimentation Control Plan

A copy of the contract documentation must be kept at the site, and be available to be produced upon request from authorised personnel.

## 4 REFERENCES

Appendix I1 – Environmental Policy

## 5 SITE LOCATION

The project is located in Toowoomba, Highfields. A figure showing the works extent is provided in the PMP clause 6.4.

## 6 ORGANIZATION FRAME WORK

Refer to Appendix A of the PMP for detailed organisational framework and management personnel.

Role	Name	Authority and Responsibilities
<b>Project Manager</b>	Lincoln Redgen	<ul style="list-style-type: none"> <li>• Define environmental management policies and objectives, priorities and targets.</li> <li>• Be advised on OHS and Environmental incidents and report to the client.</li> </ul>

<b>IMS Manager</b>	Bianca Durack	<ul style="list-style-type: none"> <li>• Ensures that the requirements of the organisation’s Environmental Management System are implemented and maintained.</li> <li>• Keeping abreast of changes in legislation and regulations.</li> <li>• Developing and implementing procedures.</li> <li>• Monitoring appropriate technology and management practices.</li> <li>• Carry out internal audits.</li> </ul>
<b>Nominated Management Representative (NMR)</b>	Hugh Smith	<ul style="list-style-type: none"> <li>• Prepare Construction Environmental Management Plan (CEMP).</li> <li>• Ensure that work is carried out in accordance with the environmental specifications of the contract.</li> <li>• Defining the responsibilities of personnel for environmental matters.</li> <li>• Acquiring and disseminating environmental management information.</li> <li>• Planning and conducting training in environmental management, including induction for new employees.</li> <li>• Assessing subcontractors’ and suppliers’ abilities to comply with environmental management system requirements.</li> <li>• Ensuring compliance with environmentally sound work practices.</li> <li>• Communication with Main Contractor and DECCW.</li> <li>• Identifying system verification requirements and allocating human, technical and financial resources adequate to meet those requirements.</li> <li>• Ensuring compliance with environmental legislation, regulations and licensing conditions.</li> <li>• Receive comments or complaints from local residents/owners and other government authorities.</li> <li>• Ensure that the EMP is implemented and revised/updated as necessary.</li> <li>• Manage the reporting and resolution of environmental incidents and hazards.</li> <li>• Ensure reporting of environmental incidents/accidents.</li> <li>• Manage, review and evaluate environmental hazards.</li> <li>• Conduct environmental inspection and testing.</li> <li>• Close out weekly environmental checklists.</li> <li>• Close out environmental risk assessment.</li> <li>• Keep a waste disposal register (where required)</li> <li>• Acquiring a copy of the licence of companies that transport &gt;200 kg of the hazardous/industrial waste, or &gt;2000kg of generated, used, rejected or unwanted tyres (where required)</li> <li>• Acquiring a copy of license of the waste disposal facility for general/ hazardous waste (where required).</li> <li>• Acquiring a copy of license of transfer and the waste disposal facility used for disposal of human waste.</li> <li>• Prepare ESCP and implement Control Measures. Revise the ESCP as required.</li> </ul>
<b>Project Supervisor (PS)</b>	John Zink	<ul style="list-style-type: none"> <li>• To inspect all environmental measures to be addressed.</li> <li>• To ensure environmental measures are in place prior to the commencement of works.</li> <li>• Assess effectiveness and safety of environmental controls.</li> <li>• Complete reports as required</li> <li>• To initiate environmental measures and rectification measures.</li> <li>• Maintenance outside normal work hours if required.</li> <li>• Carry out risk assessment and implement remedial measures.</li> <li>• Formulate &amp; conduct appropriate environmental induction for all persons working on the project including cultural heritage issues.</li> <li>• Preparation of environmental checklists, monitoring &amp; completing the checks weekly onsite, weekly record.</li> <li>• Assess and plan rectification for minor environmental incidents.</li> <li>• Record rainfall greater than 10mm in 24 hr period during project.</li> </ul>

	<ul style="list-style-type: none"> <li>• Ensure environmental controls are maintained free of damage for the duration of the works.</li> <li>• Initiate Preventative (PAR) and Corrective Action Request (CAR) and forward to Project Manager immediately.</li> </ul>
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## 7 DEFINITIONS

<b>CEMP</b>	Construction Environmental Management Plan
<b>Durack</b>	Durack Civil
<b>PMP</b>	Project Management Plan
<b>REF</b>	Review of Environmental Factors
<b>OHS</b>	Occupational Health and Safety
<b>TMR</b>	Transport and Main Roads
<b>EMP</b>	Environmental Management Plan
<b>MSDS</b>	Material Safety Data Sheet
<b>SWMS</b>	Safe Work Method Statement

## 8 COMMUNICATION

### 24 Hours Site Contact/Emergency Contact:

<b>EMERGENCY CONTACT PERSONNEL</b>			
<b>Contact in case of Emergency:</b>	<b>Name</b>	<b>Position</b>	<b>Contact Details</b>
<b>Onsite Contact</b>	John Zink	Supervisor	0486 211 725
<b>Onsite Contact</b>	Hugh Smith	Project Engineer	0455 734 028
<b>Offsite Contact</b>	Lincoln Redgen	Project Manager	0457 717 772

For complete detail of Emergency Response Plan, please refer to Appendix T of the PMP.

### Community Consultation

<b>Type</b>	<b>Details</b>	<b>Records</b>	<b>Responsible Person</b>
Community & Government Authorities Liaison	The Project Manager will liaise with local residents/owners and other government authorities unless otherwise directed in project conditions – refer PMP Appendix F Community Liaison Plan.	<ul style="list-style-type: none"> <li>• Community Contact Report</li> <li>• Emails, letters &amp; faxes</li> </ul>	PM
Complaint Management	The Project Manager will receive comments or complaints from local residents/owners and other government authorities, unless otherwise directed in project conditions. All contact with the general public and Government Authorities will be recorded.	<ul style="list-style-type: none"> <li>• Community Contact Report</li> <li>• Community Contact Register</li> </ul>	PM

A register of all complaints will be maintained for the full duration of the project. Any complaints will be recorded and attended promptly. On receiving a complaint, works must be reviewed to determine whether issues relating to complaint can be avoided or minimised. Feedback must be provided to the complainant explaining what outcomes resulted.

### Notifications

- The Project Manager must notify the client in writing (fax or email) at least 5 working days before works are to commence.

- No activities outside the scope of works described and outlined in the PMP must occur without prior additional impact assessment and approval from the client.
- The Project Manager shall notify the Administrator of meeting with, inspections by, or visits from representatives of any administering authority within 24 hours of the Contractor being advised.

**Working Hours:**

6:30am – 6.30pm Monday to Saturday

Where work is proposed outside standard working hours, the Project Manager shall notify all relevant stakeholders including but not limited to:

- Residents, who are to be informed by letter of the extent, times and duration of the proposed work outside normal working hours at least five working days before commencing work. A contact name and telephone number must be included so residents can notify any concerns about altered working hours.
- Emergency Services
- Relevant Authorities
- Key Stakeholders

**9 PLANNING**

**Initial Risk Assessment:**

Environmental Impact	Mitigation of Environmental Impacts
Traffic and Access	<ol style="list-style-type: none"> <li>1. Where possible, current traffic movements are to be maintained during the works. Any disturbance is to be minimized to prevent unnecessary traffic delays;</li> <li>2. Regard to public safety to be maintained at all times;</li> <li>3. The site facility to be locked when unattended;</li> <li>4. Appropriate signage as required to be utilized;</li> <li>5. All Loads exiting site to be covered;</li> <li>6. Installation of rumble strip as required at exit gate;</li> <li>7. Clean roads of spills immediately and maintain in a clean and tidy state;</li> <li>8. Maintain access roads in good condition and suppress dust with watercart as required.</li> <li>9. Provision to be made for dirt/sand removal from construction vehicles prior to travel on public roads. in the event of rock-shake down being soaked or sediment laden vehicles must be manually washed until the rock shake down is repaired.</li> </ol>
Flora	<ol style="list-style-type: none"> <li>1 Prior to commencement of any clearing or construction works, the extent of the construction footprint and clearing areas at each site to be clearly marked and defined in the field. No works are to extend beyond the described construction footprint.</li> <li>2. Vegetation removal to be minimized where possible;</li> <li>3. All access tracks and disturbed areas created as part of the proposed works will be rehabilitated upon completion of the works. These areas to be managed until approved vegetation cover is sufficient to inhibit significant weed growth;</li> <li>5. Prior to the commencement of works , self-supporting silt fences and staked hay bales are to be established along the interface of the construction area;</li> <li>6. All trees to be removed are to be brought down in a controlled manner to minimize damage to adjacent vegetation;</li> <li>7. Vegetation clearing at all sites to be undertaken in a manner that minimizes root/soil disturbance;</li> </ol>

	<p>8. Removed native vegetation to be mulched and re-used on site if it can be separated from weed material, otherwise it to be disposed of appropriately as per contract requirements;</p> <p>9. A Rehabilitation/Revegetation plan for all disturbed areas may be developed as per contract documentation;</p>
<p>Fauna</p>	<p>1. Water quality, waste management, terrestrial flora, and landform, geology and soils safeguards are to be effectively implemented to prevent any potential associated impacts on local fauna biodiversity.</p> <p>2. No barbed wire to be used in any temporary fencing to reduce the risk of entanglement of local fauna.</p> <p>3. A suitable qualified spotter cater is required to undertake a pre-clearance survey of the area if there is potential impacts on fauna and animal breeding places including all vegetation removal.</p> <p>4. A fauna spotter catcher to be present during clearing of areas with potential breeding locations, including hollow bearing trees / drainage lines, etc.</p> <p>5. Should injured fauna be found on the site, local wildlife care groups and/or local veterinarians are to be contacted immediately and arrangements made for the immediate treatment of the animal.</p> <p>6. If during the course of undertaking the works, the contractor becomes aware of the presence of threatened species, populations or endangered communities, or their habitats, that were not identified in the contract documentation and are likely to be affected by the works, Durack Civil will:</p> <ul style="list-style-type: none"> <li>• Immediately cease all work likely to affect the threatened species, populations or endangered ecological communities or their habitats;</li> <li>• Immediately inform the relevant authority</li> <li>• Not recommence work likely to affect the threatened species, population or endangered ecological communities or their habitats until written advice from relevant authority is received to do so.</li> </ul>
<p>Water Quality</p>	<p>1. Required fuels and other liquids to be stored in small quantities in a bunded area able to contain 120% of the liquid contents;</p> <p>2. Any storage of fuels, lubricants or other compounds and machinery, tools and equipment containing such materials to occur within a bunded or secure/impervious area, in this case within a fenced and locked site compound;</p> <p>3. Refueling of plant and equipment is to occur in impervious bunded areas</p> <p>4. Waste (including septic) to be collected and disposed of or recycled in accordance with relevant authority guidelines;</p> <p>5. Cleaning of tools and equipment to occur within a designated wash-tub to capture particles of concrete and mud, or off site;</p> <p>6. Wash down bays (if required) will be located as marked. The wash-down bay to be situated on higher ground. The wash-down bay to be placed so that water filtered through the geofabric does not flow directly into native habitats areas or any other local watercourses, but is captured within vegetation and allowed to soak into the ground;</p> <p>7. Water utilized for cleaning of tools to be minimized and obtained from a licensed location or town water supply.</p> <p>8. An incident management and emergency response procedure to be prepared detailing procedures to be followed in the event of a spill or release of waste;</p> <p>9. A spill containment kit, including equipment to address both terrestrial and aquatic spills, to be available at all times. Staff to be trained in the effective deployment of the spill containment kit;</p> <p>10. Terrestrial flora and sedimentation and erosion safeguards are to be effectively implemented to prevent any potential associated impacts on water quality.</p> <p>11. Excavated sediment will be immediately removed from site and not stockpiled.</p> <p>12. Excavated material generated from the works will be regularly cleaned up.</p> <p>13. Weather conditions will be monitored and all material removed from the roadway prior to the commencement of heavy rain;</p>

	<p>14. Water (i.e. pressure washing) will not be used to clean sediment from the roadway.</p> <p>15. Drains are to be banded with controls to filter sediment out of the water prior to it entering the drain (e.g. geotech wrapped clean rock)</p> <p>16. All water collected in sediment basin during the construction phase must be tested and approved for release prior to pump-out to kerb and channel alternatively water may be removed from site and dumped at an approved location.</p>
<p>Landform, Geology and Soils (Erosion and Sedimentation)</p>	<ol style="list-style-type: none"> <li>1. The erosion and sedimentation control plans as shown in the approved development application are to be incorporated into the CEMP.</li> <li>2. Erosion and sedimentation controls to be specifically placed in front of any drainage lines and to be designed to cater for storm events and large volumes of soil;</li> <li>3. Maintenance and checking of the erosion and sedimentation controls to be undertaken on a regular basis and records kept and provided at anytime upon request. Sediment to be cleared from behind barriers on a regular basis and all controls to be managed in order to work effectively at all times;</li> <li>4. Excavated material from the site to be transported to a licensed landfill facility (if required). No permanent stockpiles to be established on site unless agreed with client;</li> <li>5. Any short term stockpiles established at the site to be located in existing cleared areas, away from any drainage lines, not on slopes greater than 2:1 (horizontal to vertical), with erosion and sedimentation controls positioned down slope of the stockpile;</li> <li>6. Imported fill required for the works to be sourced from licensed/registered suppliers within the local area;</li> <li>7. The stripping of topsoil and stockpiling activities are not to be undertaken during or prior to rainfall events;</li> <li>8. Disturbed areas to be rehabilitated and to be undertaken progressively as stages are completed.</li> <li>9. All sediment control devices shall be monitored, cleaned and/or repaired whenever the accumulated sediment reduces the capacity by 50%.</li> <li>10. the sediment basins are to be inspected regularly and cleaned out when sediment storage achieves 50% of the storage volume provided.</li> <li>12. After every significant rainfall event the sediment basins are to be inspected. settled sediments are to be excavated and disposed of. clean water separated from sediment is to be pumped out.</li> </ol>
<p>Noise and Vibration</p>	<ol style="list-style-type: none"> <li>1. Noise impacts are to be minimized;</li> <li>2. Extensive periods of continuous operation of noisy machinery to be avoided;</li> <li>3. All equipment to be well maintained in accordance with the manufacturers specifications;</li> <li>4. All plant to be fitted with appropriate exhaust systems to ensure compliance with pollution and noise emission standards;</li> <li>5. The contractor to be required to minimise noise outputs through the use of best practice and high quality plant and equipment; and</li> </ol>
<p>Air Quality</p>	<ol style="list-style-type: none"> <li>1. Measures (including covering exposed areas) are to be used to minimise or prevent air pollution and dust;</li> <li>2. Works are not to be carried out during strong winds or weather conditions where high levels of dust or airborne particulates are likely;</li> <li>3. Vegetation or other materials are not to be burnt on site;</li> <li>4. Vehicles transporting waste or other materials that may produce dust are to be covered during transportation;</li> <li>5. Stockpiles or areas that may generate dust are to be managed to suppress dust emissions;</li> <li>6. Vehicles, machinery and equipment to be maintained in accordance with manufacture's specifications;</li> <li>7. Vehicles and equipment to be switched off when not operating;</li> <li>8. Debris and waste to be removed from the works area as soon as practical to ensure light-weight material is not dispersed by wind gusts.</li> </ol>

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	9. the contractor is to be responsible for the control of dust emanating from the site at all times, including on weekends and public holidays, for the duration of the construction and maintenance period.
Heritage & Aboriginal	1. Should Indigenous and / or Non-Indigenous heritage items be uncovered during works, all works in the vicinity of the find to cease and the Client to be contacted. Works to not re-commence until appropriate clearance has been received.
Socio-economic	1. Traffic impacts and delays - be mindful of the needs of the local community, schools, freight businesses and commercial operators using the roads around the site; 2. Notification (i.e. road signage) of road works and possible delays during the construction stage to be provided to the community and road users prior to construction works commencing.
Waste	1. No vegetation or other waste is to be burnt on site; 2. No waste or stockpiled material is to be left on site once the works have been completed; 3. Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day; 4. Non-recyclable wastes to be collected and disposed of or recycled in accordance with relevant waste disposal protocols and guidelines; 5. Any contaminated waste generated by the works to be disposed of in accordance with the EPA approved methods of waste disposal; 6. Noxious weeds removed from site must be disposed of at a licensed waste disposal facility as per guidelines. 7. Vegetation or soils awaiting disposal would not be stored within 30m of any drainage lines or waterways. 9. Materials requiring stockpiling for longer than a day to be removed from site.

## Emergency Planning and Response

Refer to Appendix K of the PMP.

## Sensitive Areas

Should the site be identified as an environmentally sensitive area, additional controls and training may be required. Refer contract documentation, relevant guidelines.

### Detail of Controls:

Through site inductions, EWMS and toolbox meetings all employees and subcontractors working on the site will be educated about the environmentally sensitive area we are working within and importance of all contributing to maintaining the site in its existing condition and limiting our impact as much as possible. Through our systems of monitoring and checking our work procedures and environmental controls, we will be able to continually minimize our impact on the surroundings.

Environmental awareness/toolbox training must commence early in the works program and continue as new personnel are engaged.

The nature and location of heritage items and their significance must be included in site inductions.

## Site Compound/ Stockpile Site

Stockpile areas are designated. This area would be used as the primary stockpile area for the works.

The Supervisor will designate an area for the site compound. Care will be taken to avoid traffic hazards and obstructions caused by parking of plant and equipment in the designated area.

All fuels, chemicals and liquids are to be stored in an impervious bunded area a minimum of 30m away from (where possible):

- Rivers, creeks or any areas of concentrate water flow
- Flooded or poorly drained areas.

**Licenses and Authorities**

Approval/ permit/ licence	Authority	Reference Number
Development Approval	DAFF	Not applicable
Minor waterway barrier works	DAFF	Not applicable
Taking water	DNMR	Notification to be undertaken by Durack Civil (if required)

**10 WATER EXTRACTION**

Water extraction points and processes are to comply with DIPL Standard Specification for Environmental Management version 2.0 (2019). Additionally, Durack Civil will comply with the requirements of the AAPA Certificate, C2013/026. Water will only be extracted from approved asset owners; no water will be extracted from the surrounding environment.

Durack Civil will have water tankers on site that shall be utilised to alleviate potential drawdowns that impact the surrounding systems. Extraction shall be recorded using document SPF03.29 – Water Extraction Record (Appendix I3)

Procedure	Details / Actions
Gain authority approval	<ul style="list-style-type: none"> <li>Obtain written permission for fill point use</li> <li>Ensure extraction volumes and times are documented</li> </ul>
Site & equipment inspection	<ul style="list-style-type: none"> <li>Verify fill point location and condition</li> <li>Check fill point fittings and signage</li> <li>Confirm backflow prevention device is installed</li> <li>Use clean, approved hoses and fittings</li> </ul>
Extract water for operational use	<ul style="list-style-type: none"> <li>Connect fill hose securely</li> <li>Ensure backflow device is active</li> <li>Supervise filling to prevent spillage or overflow</li> </ul>
Log extraction in Form SPF03.29	<ul style="list-style-type: none"> <li>Record date, time, volume, bore ID, operator, and use type</li> <li>Submit weekly to supervisor</li> <li>Retain for audit or compliance reporting</li> </ul>
Minimise impact and risk	<ul style="list-style-type: none"> <li>Extract only during agreed time windows</li> <li>Ensure extraction amount is in line with quantity agreed to avoid large drawdowns</li> <li>Keep equipment clean to avoid contamination</li> <li>Respect cultural protocols near sensitive or sacred sites</li> </ul>
Respond to extraction issues	<ul style="list-style-type: none"> <li>Stop immediately in case of spill or malfunction</li> <li>Notify supervisor and fill point owner</li> <li>Log the incident and assist in remediation</li> </ul>
Keep procedure up to date	<ul style="list-style-type: none"> <li>Review at project start, after incidents, or when conditions change</li> <li>Update EMP if operational or environmental requirements are modified</li> </ul>

## 11 WATER QUALITY MONITORING

Management Strategy	Details / Actions
<p>Controls</p>	<ul style="list-style-type: none"> <li>• The Contractor shall at all times undertake reasonable and practicable Management Measures to avoid Environmental Harm or Environmental Nuisance within the Site and to Waterways into which the Site Discharges. Specifically, the Contractor shall comply with the Environmental Protection Act 1994, Section 440ZG.</li> <li>• Comply with all relevant legislative requirements and requirements of local water authorities and all other relevant laws and by-laws in force in Queensland.</li> <li>• Provide controls, including soil erosion and sediment controls, to ensure that all water leaving the site complies with any water quality criteria. (This includes streams/waterways, bores, hydrants and standpipes).</li> <li>• Water quality of the downstream environment is to remain as close as possible in quality as those upstream environments above the designated works area.</li> <li>• In the urban environment measures are to be implemented to prevent contaminated water leaving the worksite and entering stormwater infrastructure.</li> <li>• Water quality monitoring is to follow basic scientific methodology and base line measures are to be undertaken prior to commencement of work. During construction monitoring is to occur at the same location upstream and downstream at approximately 100m away from either side of the boundary of the works area and at the same time weekly to ensure consistency</li> <li>• The water testing is to include the upstream and downstream flow rates, turbidity and pH levels.</li> <li>• The natural channel geometry and meander form of perennial and non-perennial streams must not be altered, nor riparian vegetation disturbed except where written approval is given by the DIPL Superintendent.</li> <li>• Temporary hydraulic structures such as open channels, drainage lines, batter chutes, release points into streams, and vehicle crossings, are to be designed to carry flows and remain stable, without causing erosion damage, in at least the 5-year Average Recurrence Interval (ARI) event of critical duration.</li> <li>• Flow in channels and drainage lines must be managed to non-erosive velocities, or channels lined with suitable protective material as necessary to prevent scouring.</li> <li>• Works in waterways and stormwater drainage lines are to be timed to minimise the potential for exposure to rain or flood events, have minimal disruption with disturbed areas and be rehabilitated within 10 days following completion of works in these areas.</li> <li>• Table drains are to be top-dressed with stripped topsoil from the project to promote the re-establishment of grasses along batters. Where specified in the project RFT the batters are to be hydro-mulched with native or exotic species as listed in the document.</li> <li>• Conduct all dewatering activities in a manner that does not pollute the environment.</li> <li>• the contractor is to ensure that no silt reaches the downstream water course and is to provide adequate protection to prevent this occurring</li> <li>• all water collected in sediment basin during the construction phase must be tested by a nata and approved for release prior to pump-out to kerb and channel alternatively water may be removed from site and dumped at an approved location</li> <li>• Water quality is to be adequately and continuously protected through all phases of development/construction of the project. Water discharged from the site is to be of a standard to ensure no detrimental impacts on water quality and the environment occur during the construction phase. An increase in</li> </ul>

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	<p>suspended solids within surface waters discharged from a work site is not to exceed a 10% increase from upstream to downstream of the site.</p> <ul style="list-style-type: none"> <li>• After every significant rainfall event the sediment basins are to be inspected. settled sediments are to be excavated and disposed of. clean water separated from sediment is to be pumped out.</li> </ul>
Performance Indicators / Monitoring	<ul style="list-style-type: none"> <li>• The monthly environmental report shall show water quality monitoring results</li> <li>• Non-conformance or unauthorized discharge will be reported to DLI.</li> </ul>
Reporting / Corrective Actions	<ul style="list-style-type: none"> <li>• Should the water quality not meet the above-mentioned criteria a non-conformance report will be completed along with investigation to determine the root cause and suggest corrective action / preventative action.</li> </ul>

## 12 PRE-CLEARANCE SURVEY

As per the Environmental Risk Assessment (ERA) for the Walermare Subdivision, Fauna Spotter Catchers (FSCs) will conduct pre-clearance surveys to identify and flag trees proposed for retention, with final approval by the project manager prior to works commencing. Trees flagged for retention include those outlined in the ERA for the Milingimbi Remote Subdivision.

Optimal timing for pre-clearance surveys is 1-3 days prior to vegetation clearing. This ensures up-to-date identification and management of fauna present at the time of clearing and allows enough time to conduct the survey prior to work commencing.

During the survey, FSCs will assess arboreal and ground-level fauna habitat features. Trees will be inspected for hollows, nests, loose bark, and signs of small mammals. Bark will be removed where possible to check for microbats and reptiles, and all accessible hollows will be examined with a borescope. Marked trees will be clearly flagged with spray paint or tape.

Ground-level assessments will include searching through leaf litter, grasses, under rocks, logs, and termite mounds. Stones and logs will be overturned, nests in grasses located, and burrows inspected using a borescope. Inhabited burrows may be hand-excavated. All fauna sightings and habitat features will be GPS-recorded for compliance and reporting. A comprehensive flora species list will also be compiled.

Clearing shall only take place where proposed clearing limits have been approved. Survey along with sufficient demarcation in the form of flagging, survey pegs and spray paint shall be undertaken prior to clearing works using GPS.

## 13 VEGETATION MANAGEMENT

Management Strategy	Details / Actions
Controls	<ul style="list-style-type: none"> <li>• Do not destroy, remove or clear vegetation to an extent greater than is necessary for the execution of works and/or identified in the design drawings.</li> <li>• Minimise environmental risks by following vegetation management strategies such as: <ul style="list-style-type: none"> <li>• Excluding access to significant vegetation areas</li> <li>• Selecting appropriately sized clearing machinery and equipment</li> <li>• Minimising worksite area</li> <li>• Protecting vegetation driplines</li> </ul> </li> <li>• Should a threatened species be identified onsite, stop works in the immediate area, notify the DIPL Superintendent, and install a temporary protective barrier to protect the species as mentioned in risk assessment</li> <li>• Prior to clearing any area, it is to be demarcated with fencing, flagging tape, spray paint or other method approved by the DIPL Superintendent.</li> <li>• Ensure the demolition indicators (tapes, spray paint or other) do not go outside of the clearing limits shown on the drawings OR the clearing limits approved in writing by the DIPL Superintendent. Ensure that all site</li> </ul>

personnel observe the limits of clearing and are made aware of the importance of any vegetation of significant value.

- Should works or disturbance be proposed in areas outside the previously approved works boundaries, permission must be obtained in writing from the DIPL Superintendent.
- If any areas of vegetation within the limits of clearing are to be retained, fence off with temporary fencing.
- Clearing will be staged so that land disturbance is confined to minimum areas of manageable size, thereby limiting the extent and duration of exposure. Control measures will be applied progressively as each stage is cleared.
- All areas to be cleared or used as turnaround or laydown areas will be identified on clearing plans, approved by the Superintendent, provided to the personnel undertaking the clearing works, and flagged on the ground prior to any clearing activities commencing.
- Methods and timing of clearing is to be implemented in a manner that minimises the potential for erosion to occur. All machinery operators will be trained in best practises for clearing to minimise erosion.
- Cleared vegetation, excluding weeds, may be stockpiled and reused on site for rehabilitation of disturbed areas such as, extraction areas, vehicle turn around areas, detours etc.
- Cleared vegetation can also be mulched on site and re-used on site where appropriate as ground cover or environmental control measures, if suitable.
- Storage of cleared vegetation and stripped topsoil is not to impact on areas outside of that required for project works.
  - Stockpiles of Erodable materials that has the potential to cause Environmental harm if displaced must be appropriately protected from wind, rain, concentrated surface flow and excessive up-slope stormwater surface flows.
  - located atleast 2m (preferably 5m) from any hazardous area, retained vegetation, roads and concentrated water flow located up-slope of an appropriate sediment control system
  - provided with an appropriate protective cover (synthetic, mulch or vegetative) if the materials are likely to be stockpiled for more than ten days during those months that have high erosion risk.
  - provided with an appropriate protective cover (synthetic, mulch or vegetative) if the materials are likely to be stockpiled for more than five days during those months that have an extreme erosion risk.
- a suitable flow diversion system must be established immediately up-slope of a stockpile of erodable material that has the potential to cause environmental harm if displaced, if the up-slope catchment area draining to the stockpile exceeds 1500m<sup>2</sup>.
- Clearing of native vegetation, particularly within extraction areas is to adhere to the buffer requirements to waterways referenced in the Native Vegetation Clearing Laws in Queensland Act 1999.
- Any variation to the buffers distances outlined in Native Vegetation Clearing Laws in Queensland Act 1999 will require prior written approval from the DIPL Superintendent.
- Remove excess or unwanted material from the site and dispose in accordance with local authority requirements and guidelines.

## 14 SITE FACILITIES

Durack Civil will utilise space from both Stage 1A and Stage 1B areas to establish a site compound, which will include a site shed/ office, storage container, plants, and materials. Existing infrastructure will be used in place of a construction camp.

Existing water and sewerage infrastructure will be utilised, eliminating the need for an on-site effluent disposal system. The existing kitchen facilities will also be used, and as such, no Department of Health kitchen approval will be necessary.

To preserve the visual amenity of the area during the construction phase, every effort will be made to maintain a clean and orderly site. All construction rubbish and debris will be promptly collected and properly disposed of to prevent any unsightly build-up. The site will be managed in a professional manner, with designated areas for material storage and waste, ensuring that these are screened where possible to minimise visual impact. A site office will be located on-site, but it will be kept neat and positioned to reduce its visibility from surrounding areas. Regular inspections will be conducted to ensure the site remains tidy and compliant with agreed standards for visual presentation.

## 15 ENVIRONMENTAL RISK AND INCIDENT MANAGEMENT/REPORT

Requirement	Record & Communication	Time of training	Responsible Person
Identify Hazards and Develop and implement risk controls throughout Environmental Work Method Statements (EWMS)	<ul style="list-style-type: none"> <li>EWMS</li> <li>All persons involved in EWMS activity to be briefed in EWMS prior to commencing activity. Feedback to improve EWMS.</li> <li>Toolbox talks on environmental topics</li> </ul>	Prior to starting task	PM
Review of Environmental Work Method Statements (EWMS).	<ul style="list-style-type: none"> <li>Review EWMS implementation:</li> <li>Review EWMS after changes, additional plant or equipment or after incident/accident/near miss.</li> </ul>	Over project duration	PM
Environmental Incident Report	<ul style="list-style-type: none"> <li>The Project manager must notify the Administrator and the DEHP of incidents causing or threatening material harm to environmental as soon as the person becomes aware of the incident.</li> <li>Incident to be recorded on the Incident Report.</li> </ul>	Immediately	PM
Investigation and Corrective Action	<ul style="list-style-type: none"> <li>Corrective and preventative action is to be implemented as required.</li> </ul>	Within 48 hours	PM
Environmental Inspections/ Compliance with CEMP	<ul style="list-style-type: none"> <li>Daily environmental inspections to be undertaken by the Supervisor and recorded in the daily diary.</li> <li>Weekly Environmental Checklist or after significant rainfall event.</li> </ul>	Over project duration	PM / Supervisor

## 16 SETTING ENVIRONMENTAL OBJECTIVES AND TARGETS

Objective	Target	Indicator
Zero Environmental incidents/accidents and complaints.	Planning Training Supervision Preventive Action	<ul style="list-style-type: none"> <li>Level of Compliance.</li> <li>NCR's and complaints.</li> <li>Near Misses.</li> </ul>
Zero contamination/ Pollution surface water.  Prevention/minimisation of impacts to adjacent water bodies.  Erosion Control	Water Quality	<ul style="list-style-type: none"> <li>Sediment/ contaminated water entering a natural watercourse system from disturbed construction areas.</li> <li>Visual aspects of watercourse and surface running water.</li> <li>Effectiveness of Sediment and Erosion Control measures.</li> <li>Number of NCR's and complaints.</li> <li>Environmental Inspections.</li> <li>Internal and External Audits.</li> <li>Complaints.</li> </ul>
Dust Control	Air quality	<ul style="list-style-type: none"> <li>Visual emissions from earthworks, haul roads and stockpiles.</li> </ul>

		<ul style="list-style-type: none"> <li>• Visual emissions from plant operating onsite.</li> <li>• Complaints</li> </ul>
Minimal noise & vibration	Control of noise and vibration	<ul style="list-style-type: none"> <li>• Complaints.</li> </ul>
Minimal clearing of construction site/ keep within the boundaries.	Avoid damage to flora & fauna	<ul style="list-style-type: none"> <li>• Visual impact within the limits of planned work area.</li> <li>• Complaints.</li> </ul>
Zero Environmental incidents/accidents and complaints using hazardous substances.	Prevent Spills/ Pollution	<ul style="list-style-type: none"> <li>• Level of Compliance.</li> <li>• Complaints.</li> <li>• Near Misses.</li> <li>• Housekeeping.</li> </ul>
Permits acquired	Up to date with Legal obligations.	<ul style="list-style-type: none"> <li>• NCR's and complaints.</li> </ul>
Community Consultation	Two way communication between community and Project Staff	<ul style="list-style-type: none"> <li>• Community Contact Report</li> <li>• Community Contact Register</li> </ul>

## 17 TRAINING & INDUCTION

All Durack direct staff & subcontractors working on this project must be aware of their environmental responsibilities and control measures in place to minimise the environmental impacts involved in this project. This requirement will be accomplished by means of:

- Site Induction prior to starting onsite.
- Emergency Plan, Appendix K PMP
- Environmental Work Method Statement briefing.
- Environmental Toolbox Talks.
- Daily pre-start meetings.
- Supervision.

### Induction and task training

The Durack induction will cover the Environmental procedures to be followed. The induction will also cover the use of plant & materials on site, notification requirements for environmental incidents of serious or material environmental harm, methods in which the employees are to be efficient and to minimise all potential environmental impacts.

A meeting between site staff and Client will be held on site before commence of the works to discuss relevant environmental aspects and any Heritage significance of the site, and to identify environmental awareness training and Toolbox talks required.

### Training records

All records related to the implementation of the Project Training Plan will be kept in accordance with PMP Appendix J Project Record Management Plan (RMP).

## 18 MONITORING AND REPORTING

### Reporting Incidents and Non-Conformances

<b>Incident Type</b>	<b>Reporting requirements</b>
Breach of license conditions or material or serious environmental harm	<ul style="list-style-type: none"> <li>• Immediately notify the Administrator and the DEHP, in accordance with the licence conditions and the <i>Environmental Protection Act</i>.</li> </ul>
Environmental nuisance and non-conformance with the CEMP	<ul style="list-style-type: none"> <li>• Report to the Administrator on a monthly basis.</li> </ul>

**Monthly Reporting**

Environmental records are to be submitted to the Administrator on a monthly basis, including:

- Daily/Weekly inspections of all environmental elements;
- Monitoring results, analysis and corrective actions;
- Environmental nuisance and non-conformances;
- Any results of discharge monitoring (if applicable);
- Any results of waterway monitoring (if applicable);
- Key activities to be undertaken within the next month, the controls in place and the actions that will be taken to mitigate the potential environmental risks associated with those activities.

**Additional Reporting**

- Records of any animal breeding places cleared under the Species Management Program must be submitted to the DEHP.
- Fauna management including date of inspections, name and qualifications of person and any actions taken regarding any wildlife.

**19 ENVIRONMENTAL PROCEDURES****List of Environmental Plans**

1. Soil and Water Management Plan (Erosion and Sediment Control).
2. Waste Management Plan.
3. Air Quality Management Plan.
4. Hazardous Materials Control Plan.
5. Noise and Vibration Plan.
6. Flora and Fauna Plan
7. Weed and Pest Plan

**19.1.1 Soil and Water Management Plan (SWMP), including sediment and erosion control measures.**

Activity
<ul style="list-style-type: none"> <li>• Installation of the main erosion and sediment control measures.</li> <li>• Installation of temporary stabilization measures.</li> <li>• Installation of diversion water run-off.</li> <li>• Provision of water for cleaning tools on site.</li> <li>• Location of designated storage area.</li> <li>• Location of designated stock pile area.</li> <li>• Final Stabilization.</li> </ul>
Description
a) Installation of silt fence in all disturbed areas where practical and at stockpile location/s. b) Coir Logs or similar will be installed to filter surface running water from site before entering drainage. c) Maintain passages of uncontaminated water through the site no mixing with dirty runoff. d) Runoff from heavily disturbed areas, such as the stockpile site, will be directed to sedimentation basins or to areas with adequate sediment trapping/filtering devices. e) Filtering or treating of runoff prior to discharge as required; f) Exposed area of pile and batter to be covered with geotextile fabric when not in use. g) Drains to be protected; h) Storage areas as per plans attached. i) Upon completion of works, constructed area and disturbed areas will be stabilized. Sediment control measures will be removed after areas have been stabilized.
Monitoring & Reporting Procedures

- Visual checks.
- Inspection before and after rain fall event.
- Monitoring of weather conditions and preparation for rainfall events
- Durack Site Supervision.
- Daily inspection and maintenance of turbidity barrier/silt fences.
- Weekly Environmental Checklist.
- Audit Report.
- NCR's
- External Audit Reports.
- Prestart Meetings.
- Site Progress Photograph.

**Inspection and Maintenance Requirements:**

- All permanent & temporary erosion/sedimentation control works will be inspected <24hrs of the start of rainfall events >10mm in a 24hr period & during prolonged rainfall periods.
- Sediment traps will be cleaned when less than 50% of their design capacity remains.
- Clear sediment basins when accumulated sediment has reached 60% of the basin capacity.

**12.1.2 Waste Management Plan**

**Activity**

Activities that are likely to produce waste are:

- Clearing and Grubbing.
- Office, Canteen & Ablutions.
- Spills.
- Packaging of Construction Materials.
- Sewer and Watermain reticulation.
- Culverts and concrete structures.
- Concrete works.

**Description**

1. a) If practicable, surplus fill to be reused onsite as part of rehabilitation and landscaping works. Any surplus spoil disposed of in this manner to be seeded to minimise the likelihood of it being transported offsite through wind or water action.
- b) Cleared vegetation, devoid of weeds, may either be mulched and utilised on site for landscaping if possible, or disposed of in an appropriate manner (such as in adjoining forested areas to provide habitat).
- c) Weed materials should be disposed of off-site at an appropriate facility.
  
2. a) Construction/ Demolition waste will be segregated from general waste.
- b) Demolition material may be re-used to any construction purpose authorized by the client.
- c) If demolition material cannot be re-used, it will be taken off site by Durack or an authorized contractor to be disposed to a licensed facility.
- d) Spoil will be stockpiled at the nominated stockpile location off site prior to being taken to the nominated facility. Demolition material will be kept on site in a designated area before taken off site.
- e) Previous contact to be made with licensed facility before moving material. Quantity and content of the load must be reported to the disposal facility.
- f) A copy of received note from the disposal facility must be kept on site
  
3. a) Office and Canteen waste will be segregated from construction waste.
- b) A general waste skip will be hired for the disposal of waste.

c) Regular collection service or on call service will be agreed with an authorized contractor that will dispose the waste in a licensed facility.

4. a) Spill kits to be kept on site for the event of a fuel spillage.

b) Any materials that are spilled to be immediately cleaned up.

c) Used spill kits will be placed inside a plastic bag and clearly marked as contaminated material. The site supervisor will be informed and will organise to dispose of it at a licensed facility.

5. Any human wastes generated to be disposed of offsite to an appropriate waste disposal facility.

6. a) Hazardous Material container e.g. resins, epoxy, paint will be disposed as per MSDS or as manufacture instructions.

b) Hazardous waste will be segregated and disposed by a licensed contractor.

7. Concrete waste will be either be taken back to the concrete plant or disposed of in skip bin. If required a bunded and lined area will be located at the stockpile location.

#### **Monitoring and report**

- Waste Disposal Register
- Visual checks.
- Durack Site Supervision.
- Weekly Environmental Checklist.
- Audit Reports
- Meeting Minutes.
- Prestart Meetings.
- NCR's.

#### **Inspection and Maintenance Requirements:**

- The Waste Disposal Register will be kept up to date.
- The Register should include quantity and type of waste, name of the transporter and transporters' licence number, date of transportation, name and location and license of the waste facility that receives the waste.
- Hazardous or industrial waste must be stored in an environmentally safe manner, refer to MSDS's, and must not come into contact with any incompatible waste.
- Where required Durack must provide the EPA with information on the generation, storage, treatment or disposal of hazardous or industrial waste & keep that information for >3yrs.
- Durack must keep records of the amount and type of hazardous waste transported. Records are kept for greater than three years from the date of transportation, of any hazardous or industrial waste for treatment or disposal.
- Hazardous or industrial waste can only be transported by someone who holds a licence and Durack needs to indicate what type of waste they are transporting.
- Hazardous or industrial waste can only be transported to a controlled waste facility or to a waste facility that can otherwise lawfully receive the waste. Evidence to be kept.
- If hazardous or industrial waste is transported interstate, the transporter must follow the National Manifest and Classification System.
- Durack must report to EPA if it is suspected that a transporter may have breached the Act or Regulation when transporting waste from the project site.
- The Project Manager (PM) is responsible for keeping records and must present to EPA on request. PM to check that companies that transport >200 kg of the hazardous/industrial waste, or >2000kg of generated used, rejected or unwanted tyres, have a licence.



**Appendix I – Construction Environmental Management Plan**

Project: Walermare Subdivision

Project No: DC-25-20

**12.1.3 – Air Quality Management Plan**

<b>AIR QUALITY MANAGEMENT PLAN</b>	
<b>ACTIVITY</b>	Monitoring air quality throughout the duration of the works to ensure minimal environmental impact.
<b>DESCRIPTION</b>	Environmental Inspections. <ul style="list-style-type: none"><li>• Internal and External Audits.</li><li>• Number NCR's.</li><li>• Target and Objectives.</li><li>• Compliance with SWMS.</li></ul>
<b>MONITORING AND REPORTING</b>	<ul style="list-style-type: none"><li>• Visual checks.</li><li>• Durack Site Supervision.</li><li>• Weekly Environmental Checklist.</li><li>• Audit Reports</li><li>• Meeting Minutes.</li><li>• Prestart Meetings.</li><li>• NCR's</li></ul>
<b>MITIGATION STRATEGIES</b>	<ul style="list-style-type: none"><li>• Dust suppression may take place with a water cart onsite as required.</li><li>• Construction plant &amp; vehicles to travel at reasonable speed to avoid the generation of dust on dry conditions.</li><li>• No work will take place out of authorized working hours.</li><li>• All plant &amp; equipment to be maintained in good working order to limit emission of smoke &amp; dust.</li><li>• Load to be secured prior to leaving site to prevent loss of materials.</li><li>• Trucks transporting loose materials should be covered.</li><li>• Burning of materials not permitted.</li><li>• Work will cease or be re-programmed if dust control measures are not adequate.</li></ul>

**12.1.4 – Hazardous Materials and Chemical Management Plan**

**HAZARDOUS MATERIALS AND CHEMICAL MANAGEMENT PLAN**

**OBJECTIVES**

Avoid contamination.  
Avoid Incident/accidents/ complaints.

**PERFORMANCE INDICATORS**

- Weekly Inspections.
- Results of environmental audits and checks.
- Visual condition of storage areas.
- Housekeeping.
- NCR's.

**MONITORING AND REPORTING**

- Durack Site Supervision
- Hazardous Substance Register and MSDS
- Weekly Environmental Checklist
- Waste Disposal Register.
- Meeting Minutes.
- Prestart Meetings.
- Visual checks.
- Audit Report.
- NCR's.

**MITIGATION STRATEGIES**

- No storage near the water ways to avoid contamination.
- MSDS's will be available at point of use of all hazardous materials and chemicals onsite.
- Hazardous materials and chemicals will only be used for their intended purpose.
- Hazardous substances to be stored on site as per MSDS.
- Sediment basins and traps will be inspected regularly.
- Storage of Oil/Fuel in bunded or contained storage facilities with 120% capacity of stored liquids away from water course/ surface water to prevent contamination from spills.
- Refuelling in designated area and bunded containment controls if required;
- Spill kits to be available.
- Plant and equipment will be inspected daily through pre-startup checklists to ensure there are no leakages of fuel, oil and hydraulic fluid;

**CORRECTIVE ACTION/CONTINGENCY PLAN**

**Spillage of petrol oils or other contaminants**

1. Contain any spillage of contaminates by temporary bund constructed of fill material, a row of straw bales or absorption boom.
2. Control spillage spill kits (absorbent material).
3. Durack will dispose of spill contaminant and residual absorbents to a licensed facility.
4. Report any contaminated spill on land or in water immediately to Site Supervisor. Advice to include location, type and source of spill, weather conditions, time and date of occurrence.
5. The Site Supervisor will contact the competent authorities.
6. Site supervisor will assess if a sample of the affected area is required to determine the extent of significance of the events.
7. Carry out other remedial action as appropriate and as determined by the Durack PM in consultation with the Clients Environmental Advisor and the Superintendent or representatives of the relevant agencies.
8. The contaminants respective MSDS is also to be followed in the event of an environmental incident involving hazardous substances and chemicals.

**12.1.5 – Flora and Fauna Management Plan****FLORA AND FAUNA MANAGEMENT PLAN****OBJECTIVES**

Minimize damage to flora and fauna in the vicinity of the works.

**PERFORMANCE INDICATORS**

- Visual impact.
- Environmental Inspections.
- Internal and External Audits.
- Number NCR's.
- Target and Objectives.
- Compliance SWMS.

**MONITORING AND REPORTING**

- Visual checks.
- Durack Site Supervision.
- Daily inspection and maintenance of silt traps.
- Weekly Environmental Checklist.
- Audit Report.
- SPF04.8 Meeting Minutes.
- Prestart Meetings.
- NCR's.

**MITIGATION STRATEGIES**

- Environmental Aspects will be covered during the Site Specific Induction.
- Durack will produce EWMS when cleaning and grubbing is required and personnel will be briefed.
- Prior to commencement of any clearing or construction works, the extent of the construction footprint and clearing areas at each site to be clearly marked and defined in the field. No works are to extend beyond the described construction footprint.
- Prior to the removal of any forest habitat pre-clearing surveys are to be undertaken by a suitably qualified and experienced ecologist
- All trees to be removed are to be brought down in a controlled manner to minimize damage to adjacent vegetation;
- Vegetation clearing at all sites to be undertaken in a manner that minimizes root/soil disturbance

**CORRECTIVE ACTION/CONTINGENCY PLAN**

- Where flora or fauna is identified as being at risk due to the project works, the project works will be stopped and the Superintendent will be notified.
- If fauna are injured or injured fauna are found on the site, local wildlife care groups and/or local veterinarians are to be contacted immediately and arrangements made for the immediate treatment of the animal.
- Contact details for emergency wildlife carers:
  - RSPCA Hotline: 1300
  - Toowoomba Koala and Wildlife Rescue: 1300 264 625

**12.1.6 – Noise and Vibration Management Plan****NOISE AND VIBRATION MANAGEMENT PLAN****OBJECTIVES**

Reduce the risk of these potential impacts on the workforce including:

- Noise-induced hearing loss, tinnitus, etc.;
- Communication problems including safety instructions;
- Stress.

Reduce the risk of these potential impacts on the adjacent sensitive receivers including:

- Disruption to daily activities and loss of sleep.

To avoid and/or minimise adverse noise/vibration impacts associated with the operation of any plant, machinery or other equipment on site at all times through implementation of construction methodology and appropriate management measures

**PERFORMANCE INDICATORS**

- Audial impact.
- Environmental Inspections.
- Internal and External Audits.
- Number NCR's.
- Target and Objectives.
- Compliance SWMS.

**MONITORING AND REPORTING**

- Audial checks.
- Durack Site Supervision.
- Weekly Environmental Checklist.
- Audit Report.
- Meeting Minutes.
- Prestart Meetings.
- NCR's.
- Record noise meter results.

**MITIGATION STRATEGIES**

- Conduct monitoring as required during
  - Identified high noise or vibration generation activities
  - Periodically by project staff as required using a hand held noise or vibration meter.
- Staging of site works to maximise use of the existing site features/facilities as acoustic barriers where possible.
- All site personnel to wear personal protective equipment (PPE) when operating, or in the vicinity of noise generating plant/equipment
- Noise and vibration awareness training for all site staff including subcontractors as part of general site induction and tool-box talk activities.
- Strict adherence to approved works times.
- Schedule works to minimise simultaneous noisy activities.
- Vehicles may not be left turned on or idling at the site for longer than minimum amount of time required completing site activities.
- Machines/equipment used intermittently during construction activities (i.e. cranes, excavators, bobcats, lifting equipment, etc.) will be shut down as practicably achievable or allowed to idle.
- Minimise duration of noise-intensive works through a regular review of the program and construction methodologies.
- Use existing features for noise screening capability.
- The site layout (including plant, equipment, waste, materials etc. loading/unloading areas, location of fixed noise generating equipment including generators, etc.) design process has considered the potential for minimisation of movement of plant and equipment within the construction site where possible

- Vibration noise assessment to be conducted prior to commencing works. If there is potential for sensitive receivers to be affected by the works, a pre-condition survey is to be conducted.

**12.1.7 – Weed and Pest Management Plan**

**WEED AND PEST / ANIMAL MANAGEMENT PLAN**

**OBJECTIVES**

Avoid introduction or spread of declared pests (animals and weeds) into new areas.

**MANAGEMENT STRATEGY**

- Ensure that all necessary measures are undertaken to prevent and minimise the risk of the introduction and spread of pest animals. No domestic pets, including dogs, are to be brought to the construction site by construction personnel without written approval from the DIPL Superintendent. If approved, pets must be under control and safely secured at all times.
- All necessary measures are to be implemented to prevent the establishment of suitable environments for mosquito breeding habitat. Where works are undertaken in areas known for biting insects, personal protective measures are to be made available to workers and visitors.
- All waste bins will have lids to prevent the attraction of pests and vermin. Where skips are used for food waste, covers are to be utilised to reduce the risk of attracting pests.
- Provide evidence that the area is weed free or provide advice of the weeds present in the areas of the works (WITNESS POINT).
- Provide weed and seed declaration as evidence to show that the vehicles and plant brought on to the site of the works are free of weeds and their seeds and are soil free (WITNESS POINT).
- Provide evidence that organic matter transported to site is free of weeds and/or their seeds (WITNESS POINT).
- Provide the Superintendent with a signed statement certifying that cleaning took place (WITNESS POINT).
- The reuse of weed contaminated topsoil by surface spreading is not permitted.
- Topsoil that is contaminated with weed seeds will be quarantined with visible barriers and a notice, then treated appropriately. Alternatively, it will be buried under 300mm depth of clean, weed seed free fill.
- The main methods to ensure that weeds are not spread are:
  - a) Clean machines before moving between sites
  - b) Don't use or move materials contaminated with weed seeds
  - c) Avoid travelling through weeds that are seeding.
- Collection and disposal of the removed earth and organic material will be conducted in a method that will ensure that it does not infest any river, stream, wetland or property.

**PERFORMANCE INDICATORS**

- Weekly Inspections.
- Results of environmental audits / checks.
- Housekeeping.

**MONITORING AND REPORTING**

- Durack Site Supervision
- Weed and Seed Declaration
- Hazardous Substance Register and MSDS
- Weekly Environmental Checklist
- Meeting Minutes and prestart Meetings.
- Visual checks.
- Audit Report.
- NCR's.

**MITIGATION STRATEGIES**

- Treat infestations prior to the disturbance of the natural surface.
- Conserve weed free topsoil for reuse in site rehabilitation.
- Wash down vehicles and infrastructure operating in contaminated areas prior to movement to other areas.
- Vendors / subcontractors to provide declarations to certify that imported materials (i.e. topsoils and mulches) are weed free, where applicable.
- Vendors / subcontractors to provide weed hygiene declarations to certify that plant and vehicles used on site are weed free.
- Isolate and avoid infested areas, where possible.
- Fire ant restricted area movement controls to be adhered to.
- Bury or isolate infested soil material.
- Implement chemical control methods for plant species.

