## Environmental Activity Register SE4133

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<tr>
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<th>Residual Risk Rating</th>
<th>Monitoring</th>
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</table>
| Adjoining waterways (dewatering, soil erosion and runoff) | NSW - POEO Act 1997 (s 120, 122) NSW - PEO (General) Regulation 1998, cl 55; NSW - Local Government Act 1993, s 638 | Very High | • Temporary drainage systems will be established to divert clean waters around the land development areas as appropriate.  
• Erect silt fences, bunds and construct swale drains.  
• Regularly inspect and maintain and/or replace these controls as required.  
• Inspect control measures after a rain event.  
• Street sweepers will be employed on regular basis, as needed  
• Leave as much vegetation to stabilise soils, where possible.  
• Install temporary fences to define 'no go' areas in those areas that are not to be disturbed.  
• Install sediment controls down slope of the site to catch sediment.  
• Where possible, leave or lay a kerbside turf strip (for example, the nature strip) to slow the speed of water flows and to trap sediment.  
• Limit vehicle entry and exit to one point, and lay geotextile and aggregate to stabilise it for all-weather access.  
• Clearly mark the access point and give an access map to all suppliers.  
• Protect all existing stormwater drains.  
• Save the topsoil and stockpile it for use later in revegetation. Never place it around trees as this will kill them.  
• Store all stockpiles and building materials behind sediment fences. Cover them with plastic to prevent erosion by wind.  
• Get council approval before placing stockpiles or other materials on the nature strip or footpath. | Medium | Visual Inspection Daily Weekly Hazard & Observation Sheet | Site Manager / Site Foreman |
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| Chemicals                   | NSW - POEO Act (Section 116, 142), WHS Act and Regulation 2011 | Very High | • Connect downpipes from the guttering to the stormwater drain as soon as possible once the roof sheeting is installed.  
• Surround the wash-out area with a sediment fence that slows down the water flow. Site this area upslope of another sediment control.  
• Fill in all trenches immediately after services have been laid.  
• Spread the topsoil back when the work is finished and revegetate the site as soon as possible to control erosion.  
• Remove the sediment and erosion controls only after this is done.  
• Sweep the road and footpath as needed each day. Washing down is unacceptable.  
• Never place any materials in the gutter or on the road.  
• Filter or settle-out all water pumped off the site. The water must be clear before it enters the stormwater system or creeks. Gypsum or other flocculent can be applied to muddy or turbid water to assist clay particles to settle.  
| | | | | | Medium | Visual Inspection | Daily | Hazard & Observation Sheet | Site Manager / Site Foreman |

**Residual Risk Rating**

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Documentation</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Visual Inspection</td>
<td>Daily</td>
<td>Hazard &amp; Observation Sheet</td>
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**Monitoring**
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<tbody>
<tr>
<td>Community Concerns</td>
<td></td>
<td>High</td>
<td>- Safety Data Sheets (SDS’s) must be provided to the Foreman prior to a chemical being received on site and by subcontractors using chemicals/products.</td>
<td>Low</td>
<td>Visual Inspection, Daily Weekly, Hazard &amp; Observation Sheet, Site Manager / Site Foreman</td>
</tr>
</tbody>
</table>
| Dust Generation Particulate Emissions (General) | NSW - POEO Act (Sections 124-126) | Very High | - Provide information (e.g. Signage, letterbox drops) to community on programmed works.  
- Provide contact name for inquiries.  
- Advice locals of “noisy” work.  
- If required in noise sensitive areas and/or in response to complaints, engage consultants to undertake monitoring at nominated receivers.  
- Vehicles will not be permitted to queue outside the site or in residential areas unless a defined area is established which does not adversely impact on neighbours. | Medium               | Visual Inspection, Daily Weekly, Hazard & Observation Sheet, Site Manager / Site Foreman |
| Dust Generation (Demolition) | NSW - POEO Act (Sections 124-126) | Very High  | - Breakers and crushing equipment to be fitted with dust filtration equipment or water sprays to control dust emissions.                                                                                                                                                        | Low                  | Visual Inspection, Daily Weekly, Hazard & Observation Sheet, Site Manager / Site Foreman |
| Dust Generation (Construction) | NSW - POEO Act 1997 (s 124-126) | Very High | - Minimise areas of site disturbed and stage works where possible.  
- Dust suppression strategies to be used, i.e. water sprays, soil binders, hydro-mulching, controlled speed onsite, roadbase vehicle access, and shaker grids.  
- Stockpiled topsoils and rubble will be restricted to 4m high. Stabilise if in situ for >4-6 months.  
- On site drilling or coring operations will be undertaken by equipment fitted with air filtration and/or dust suppression equipment. | Low                  | Visual Inspection, Daily Weekly, Hazard & Observation Sheet, Site Manager / Site Foreman |
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</tr>
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<tbody>
<tr>
<td>Emergency Preparedness</td>
<td></td>
<td>Very High</td>
<td>• Spill kit available onsite.</td>
<td>Medium</td>
<td>Inspection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Spill kit inspected regularly by site management personnel to ensure sufficient resources available at all times.</td>
<td></td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Site management personnel will refer to the SDS (maintained in the site office) for advice and procedures.</td>
<td></td>
<td>Hazard &amp; Observation Sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• All spills must be reported to the Site Manager and cleaned up.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Site manager to record incidents using AWE SE5101 Incident/Accident Investigation Form.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>• Sediment pond pumped out regularly to maintain capacity in case of emergency</td>
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<td></td>
<td></td>
<td></td>
<td>• Ensure you know where stormwater drains are and have materials to block them in case of a spill or fire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazardous materials (Asbestos)</td>
<td>NSW - POEO Act (Section 142) NSW PEO (Waste) Regulation 2005, cl 42 NSW WHS Regulation 2011, Chapter 8</td>
<td>Low</td>
<td>• Request and review the asbestos register for any buildings where construction works are expected to be undertaken.</td>
<td>Low</td>
<td>Visual Inspection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Should potential ACM be encountered during the works, the following unexpected finds process is to be followed;</td>
<td></td>
<td>Daily Weekly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Stop work if unexpected potential ACM are encountered.</td>
<td></td>
<td>Hazard &amp; Observation Sheet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Seek advice from a licensed asbestos assessor (occupational hygienist)</td>
<td></td>
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<td></td>
<td>If ACM is identified and the RAP/AMP specifies;</td>
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<td></td>
<td></td>
<td></td>
<td>• A licence subcontractor is used to remove, or disturb any ACM.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Where required a Remediation Action Plan/Asbestos Management Plan/Asbestos Removal Control Plan will be developed and implemented.</td>
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<td></td>
<td></td>
<td></td>
<td>• A Class B SafeWork NSW asbestos licenced contractor is engaged to remove 10 square metres or more of non-friable (aka ‘bonded’) asbestos</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• A Class A SafeWork NSW asbestos licenced contractor is engaged to monitor, remove or disturb any friable ACM.</td>
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<td></td>
<td></td>
<td></td>
<td>• Work areas will be signed off by the licensed assessor to validate any clean up works.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land (contaminated soils, imported fill)</td>
<td>NSW - Contaminated Land Management Act 1997, s 60.</td>
<td>High</td>
<td>The following unexpected finds process is to be followed;</td>
<td>Low</td>
<td>Visual Inspection</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Stop work if unexpected potentially contaminated soils (eg. ACM, hydrocarbons) are encountered.</td>
<td></td>
<td>Daily Weekly</td>
</tr>
</tbody>
</table>

**Emergency Preparedness**
- **Legal Requirements**: Various regulations and acts relevant to emergency preparedness.
- **Risk Rating**: Very High
- **Environmental Actions, Controls and Criteria**:
  - Spill kit available onsite.
  - Spill kit inspected regularly by site management personnel to ensure sufficient resources available at all times.
  - Site management personnel will refer to the SDS (maintained in the site office) for advice and procedures.
  - All spills must be reported to the Site Manager and cleaned up.
  - Site manager to record incidents using AWE SE5101 Incident/Accident Investigation Form.
  - Sediment pond pumped out regularly to maintain capacity in case of emergency.
  - Ensure you know where stormwater drains are and have materials to block them in case of a spill or fire.

**Hazardous materials (Asbestos)**
- **Legal Requirements**: NSW - POEO Act (Section 142) NSW PEO (Waste) Regulation 2005, cl 42 NSW WHS Regulation 2011, Chapter 8
- **Risk Rating**: Low
- **Environmental Actions, Controls and Criteria**:
  - Request and review the asbestos register for any buildings where construction works are expected to be undertaken.
  - If ACM is identified and the RAP/AMP specifies:
    - A licence subcontractor is used to remove, or disturb any ACM.
    - Where required a Remediation Action Plan/Asbestos Management Plan/Asbestos Removal Control Plan will be developed and implemented.
    - A Class B SafeWork NSW asbestos licenced contractor is engaged to remove 10 square metres or more of non-friable (aka ‘bonded’) asbestos.
    - A Class A SafeWork NSW asbestos licenced contractor is engaged to monitor, remove or disturb any friable ACM.
    - Work areas will be signed off by the licensed assessor to validate any clean up works.
- **Monitoring**
  - Type: Hazard & Observation Sheet
  - Frequency: Daily Weekly
  - Responsibility: Site Manager / Site Foreman
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<td></td>
</tr>
<tr>
<td></td>
<td>NSW - Contaminated Land Management Regulation 1998, cl 3 Acid Sulfate Soils Management Advisory Committee NSW - POEO Act (Section 142) NSW PEO (Waste) Regulation 2005, cl 42 NSW WhS Regulation 2011, Chapter 8.</td>
<td></td>
<td>• Obtain waste classification from consultant in accordance with OEH guidelines Environmental Guidelines: Waste Classification Guidelines (April 2008) • Where required a Remediation Action Plan will be developed and implemented. • Sign off by Site Auditor may be required to validate clean up. Any affected groundwater or ponded rainwater will be tested and classified by consultants prior to disposal. • Check geo-tech requirements. If ACM is identified and the RAP/AMP specifies; • A licence subcontractor is used to remove, or disturb any ACM. • A Class B SafeWork NSW asbestos licenced contractor is engaged to remove 10 square metres or more of non-friable (‘bonded’) asbestos • A Class A SafeWork NSW asbestos licenced contractor is engaged to monitor, remove or disturb any friable ACM.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Landfilling</strong></td>
<td>NSW - POEO Act (Section 116, 142)</td>
<td>Medium</td>
<td>• Reduce, reuse and then dispose • Dispose of hard construction wastes for recycled gravels and sands • Do not send soil to landfill until alternatives for beneficial reuse have been explored as per consultant's advice. • Reuse packaging to protect works</td>
<td>Low</td>
<td>Visual Inspection Daily Weekly Hazard &amp; Observation Sheet</td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td>NSW - POEO Act (Sections 139, 140)</td>
<td>High</td>
<td>• Refer to SSD9491 &amp; AWE CEMP for noise restrictions and working hours. • Use hoarding, or acoustic mats as required. • Situate generators and plant away from sensitive receivers. • Turn off plant/machinery when not in use. • Maintain equipment and stop noisy plant until repaired. • No early or late deliveries outside of working hours (unless by prior arrangement A W Edwards)</td>
<td>Low</td>
<td>Visual Inspection Daily Weekly Hazard &amp; Observation Sheet</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>NSW - POEO Act 1997 s 142</td>
<td>High</td>
<td>• If odorous materials are uncovered, re-cover immediately. • Seek advice from consultant regarding soil /materials management.</td>
<td>Low</td>
<td>Visual Daily Hazard &amp; Observation Sheet</td>
</tr>
<tr>
<td><strong>Resources – water, materials, energy</strong></td>
<td></td>
<td>Medium</td>
<td>• For design and construct jobs, refer to the design specification for Ecologically Sustainable Development (ESD) requirements, where they apply, and product choices.</td>
<td>Low</td>
<td>Visual Daily Hazard &amp; Observation Sheet</td>
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| Sewer (Trade waste)               | Comply with the conditions of the trade waste consent or permit, or the local council approval, including acceptance standards | Very High   | • No paints or other chemicals to be poured down drains (including sewer).  
• If required, obtain trade waste licence for discharge or local council approval | Low       | Visual Inspection, Daily Weekly, Hazard & Observation Sheet | Site Manager / Site Foreman |
  - pH 6.5- 8.5, Turbidity <50NTU, No visible oil and grease  
  - Obtain advice for use of flocculants to settle sediment from water.  
  - Where installed, sedimentation pond to be maintained at low levels to ensure capacity during rainfall event.  
  - Do not discharge water from ponds if contaminants are suspected. Obtain advice. | Low      | Visual Inspection, Daily Weekly, Hazard & Observation Sheet | Site Manager / Site Foreman |
| Traffic                           | Local Government Requirements                                                        | High        | • Develop and implement traffic management plans, and submit to local council as required.  
• Signage and notices regarding disruptions.  
• Use crushed concrete, mulches etc. along site access roads.  
• Install shakers and wheel wash as required.  
• Organise regular street sweeping.  
• Haulage routes and rules will be provided to subcontractors prior to commencing on site.  
• All loads of soil, demolition wastes, general wastes etc. are to be tarped/covered | Low      | Visual Inspection, Daily Weekly, Hazard & Observation Sheet | Site Manager / Site Foreman |
| Vibration                         |                                                                                     | High        | • Conduct dilapidation report prior to working starting.  
• Consultation with the Currie & Brown & LCPS  
• As far as is reasonably practicable, limit the use of vibratory rollers, rock breakers, impact piling etc. adjacent to buildings (>7m).  
• Obtain advice as required | Low      | Visual Inspection, Daily Weekly, Hazard & Observation Sheet | Site Manager / Site Foreman |
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• General site wastes – use one bin system, which is then sorted in the waste contractor’s yard providing a report of quantities for recycling, reuse, disposal etc.  
• Empty drums are to be taken off-site for disposal. Where possible, and safe to do so, empty drums shall be crushed prior to recycling/disposal.  
• Adequate numbers of waste receptacles (e.g. skips and bins) are provided on site.  
• Do not overfill skip bins. Cover where potential for windblown litter. | Low      | Visual Inspection  
Daily Weekly  
Hazard & Observation Sheet | Site Manager / Site Foreman |
RISK MATRIX

Any risk classified as being either EXXTREME, VERY HIGH or HIGH must be reduced to the lowest level possible by the development and implementation of effective controls. The aim is to eliminate or reduce risks to MEDIUM or LOW levels for all activities.

RISK CLASS CALCULATOR (RISK CLASS = LIKELIHOOD X CONSEQUENCE)

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Almost Certain</th>
<th>Likely</th>
<th>Possible</th>
<th>Unlikely</th>
<th>Rare</th>
</tr>
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<tbody>
<tr>
<td>Catastrophic</td>
<td>EXTREME</td>
<td>EXTREME</td>
<td>EXTREME</td>
<td>VERY HIGH</td>
<td>HIGH</td>
</tr>
<tr>
<td>Major</td>
<td>EXTREME</td>
<td>EXTREME</td>
<td>VERY HIGH</td>
<td>HIGH</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>Moderate</td>
<td>VERY HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>MEDIUM</td>
<td>LOW</td>
</tr>
<tr>
<td>Minor</td>
<td>MEDIUM</td>
<td>HIGH</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>LOW</td>
</tr>
<tr>
<td>Insignificant</td>
<td>MEDIUM</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
</tr>
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HIERARCHY OF CONTROLS

When deciding on the best way to control a risk, consideration should be given to the Hierarchy of Controls. The Hierarchy of Controls gives an ordered mitigation strategy to remove or reduce the hazard.

Start at the top of the hierarchy of controls, check to see if the risk can be eliminated first. This may not be practicable however by changing the way work is done it could reduce or eliminate the hazard. If the risk cannot be eliminated proceed to the next stage and check for any substitutes available and so on.

- **Elimination** - Removing the hazard at source of the risk.
- **Substitution** - Finding and replacing the problem less hazardous one, e.g. replacing solvent based paints with water-based paint.
- **Isolation** - Separation of the process can be by distance from the rest of the workplace or by a physical barrier between the process and any person, e.g. providing a locked cage area for hazardous substances.
- **Engineering** - Protecting the element at risk, usually human, by installing protective barriers or guards. An example would be hand railing on stairs or an automatic shield on a saw.
- **Administration** - Implementing a procedure or business management system when working in a particular fashion or environment.
- **Personal Protective Equipment** - Safety Glasses, earplugs, protective clothing etc.

CONSEQUENCE

- **Catastrophic** - The hazard has the potential to:
  - Permanently disable or kill
  - Cause severe damage to the structure
  - Have significant impact on the surrounding population and environment

- **Major** - The hazard has the potential to:
  - Temporarily disable or very serious injury
  - Cause major damage to the structure
  - Breach the site boundary and pollution of the local environment

- **Moderate** - The hazard has the potential to:
  - Temporarily disable or serious injury
  - Cause moderate damage to the structure
  - Breach the site boundary and minor pollution to the local environment

- **Minor** - The hazard has the potential to:
  - Moderate injury
  - Cause minor damage to the structure
  - Be contained within the site boundary

- **Insignificant** - The hazard has the potential to:
  - Cause minor injury (first aid)
  - Insignificant impact contained within the site boundary

LIKELIHOOD

- **Almost Certain** 75% - 100% Expected to occur in most circumstances
- **Likely** 60% - 75% Will probably occur in most circumstances
- **Possible** 40% - 60% Might occur at some time in the future
- **Unlikely** 20% - 40% Could occur but doubtful
- **Rare** 0% - 20% May occur but only in exceptional circumstances

RISK CLASS LEGEND

- **EXTREME** - Extreme Risk; No work to proceed
- **VERY HIGH** - Very High Risk; No work to proceed
- **HIGH** - High Risk; Additional task review required
- **MEDIUM** - Medium Risk; Manage by routine procedures
- **LOW** - Low Risk; Manage by routine procedures