# Appendix A9
# Pollution Incident Response Management Plan
# M12 Motorway West

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| **Project number:** | N81151 |
| **Document number:** | M12WCO-CPBGGJV-ML1-EV-PLN-000001_App A9 |
| **Revision date:** | 18/11/2025 |
| **Revision:** | 03 |

# Details of Revision Amendments

## Document Control

The Project Director is responsible for ensuring that this plan is reviewed and approved. The Project Director is responsible for updating this plan to reflect changes to construction, legal and other requirements, as required.

## Amendments

Any revisions or amendments must be approved by the Project Director and/or client before being distributed / implemented.

## Revision Details

| Rev | Date | Reviewed By | Details |
|---|---|---|---|
| A | 18/02/2022 | A. Zvirzdinas | First Draft |
| B | 13/05/2022 | A. Zvirzdinas | Second draft following TfNSW/Arcadis review and comments |
| C | 24/06/2022 | A. Zvirzdinas | Update to include contact details of personnel. |
| D | 19/07/2022 | A. Zvirzdinas | Fourth Draft following ER review and comments on Rev C. New document number |
| E | 25/07/2022 | A. Zvirzdinas | Fifth Draft following ER review and comments on Rev D. |
| 00 | 27/07/2022 | A. Zvirzdinas | First Controlled Issue |
| F | 19/01/2023 | K. Purkiss | 6 monthly review and design changes |
| 01 | 16/03/2023 | A. Brajlih | Second Controlled Issue |
| 02 | 22/10/2024 | T. Chezzi | Annual review |
| 03 | 18/11/2025 | S. Keomongkhoun | Annual review |

## Document Review

| Position | Name | Signature | Date |
|---|---|---|---|
| Project Director | Vishal Khosla | | 19/11/2025 |

## Distribution of controlled copies

| Copy no. | Issued to | Version |
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# Acronyms and Abbreviations

| Abbreviation | Definition |
|---|---|
| **ARSR** | Amendment Report to the Submissions Report |
| **CFMP** | Contractor's Flood Management Plan |
| **CCEMP** | Contractor's Construction Environmental Management Plan |
| **CoA** | Condition of Approval |
| **CPBGG JV** | CPB Contractors and Georgiou Group Joint Venture |
| **DPE** | NSW Department of Planning and Environment (formerly DPIE) |
| **DPIE** | NSW Department of Planning, Industry and Environment |
| **EEC** | Endangered Ecological Community |
| **EIS** | Environmental Impact Statement |
| **EPA** | Environment Protection Authority |
| **EP&A Act** | *Environmental Planning and Assessment Act 1979* |
| **EPL** | Environment Protection Licence |
| **ERSED** | Erosion and sedimentation |
| **ESCP** | Erosion and Sediment Control Plan |
| **ESR** | Environmental Site Representative (CPBGG JV) |
| **EWMS** | Environmental Work Method Statements |
| **POEO Act** | *Protection of the Environment Operations Act, 1997* |
| **PIRMP** | Pollution Incident Response Management Plan |
| **Project** | M12 West Motorway Project |
| **RMS / Roads and Maritime** | NSW Roads and Maritime Services (former) |

| | |
|---|---|
| **Secretary** | Secretary of the Department of Planning, Industry and Environment |
| **TfNSW** | Transport for New South Wales (formerly Roads and Maritime Services) |
| **TEC** | Threatened Ecological Community |
| **Work Pack (CPBGG JV)** | A Work Pack is a collective set of documents that provides an integrated and planned method of delivering elements of the work with consideration to all necessary factors including safety, environmental, quality, community, legislative, production and cost. |

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|---|---|
| **VOC** | Verification of Competency |

# 1 Introduction

This Pollution Incidence Response Management Plan (PIRMP or plan) has been prepared for construction of the M12 Motorway Central section (the project). The CPB Contractors and Georgiou Group Joint Venture (CPBGG JV) has been awarded the M12 West stage which is a construct only contract between The Northern Road, Luddenham and about 250 metres east of Badgerys Creek.

The PIRMP has been developed by CPBGG JV in response to amendments to the *Protection of the Environment Legislation Amendment Act 2011* as set out in Part 5.7A of the POEO Act. The plan provides a guide for the operations, actions and notifications to be carried out in the event of a pollution incident and/or emergency as application. Whilst deviation from the plan should be avoided, all events shall be managed according to the specific conditions of the incident.

As part of the development of the PIRMP a workshop shall be held to identify current and future environmental risks associated with the project. As part of the workshop pollution preventative measures currently in place and any further measures shall be discussed, along with the emergency response processes and notification requirements.

# 2 Scope and purpose

The PIRMP provides an easily interpreted reference document that ensues that pollution incidents can be managed and responded to in an appropriate manner.

The PIRMP is applicable to all project activities during the construction phase and describes how the construction project team proposes to manage and control potential hazards associated with the project.

The PIRMP documents the risk assessment process implemented at the project and the activities that create pollution risks. All risks and any subsequent pollution incidents would be managed through the implementation of this plan. The PIRMP also details the pre-emptive actions that shall be implemented on the project. These include:

- Specific measures implemented to minimise the risk of an incident occurring due to spillage, storage of hazardous materials or fire
- Inventory of potential pollutants on site
- Minimum safety equipment requirements
- Communication with the community
- Minimising harm to persons
- Training of personnel
- Testing of the PIRMP.

The PIRMP details the procedures to be used in the event of a pollution incident including notification requirements. The PIRMP links to the existing safety, environmental and emergency systems and documentation already prepared for the project. The existing approved Emergency Response Plan provides the framework of responsibility and implementation for the Project covering both the implementation of that plan and this plan for emergencies should they occur.

# 3 Description and likelihood of hazards

## 3.1 Project hazard and risk assessment

Overall hazards and risks for the project are determined through the Risk/Opportunities Management System and reflected in the Project Risk Management Plan. Work Health and Safety (WH&S) considerations are managed with via the project Safety & Health Management Plan.

### 3.1.1 Hazard and risk assessment procedure

On a work task level, individual risks are managed through Work Packs and associated work method statements. This procedure identifies hazards associated with a work task and develops solutions for each hazard that either eliminates or controls such hazards. The risk assessment process uses the following 3 steps

- Step 1. Consequence criteria are used to determine the most credible consequence rating of the risk identified
- Step 2. Likelihood criteria is used to determine the likelihood of that consequence occurring in the circumstances
- Step 3. From these above two steps, determine the risk level using the matrix.

### 3.1.2 Evaluation criteria

Qualitative measures are used to estimate the consequence or impact of an event, along with the estimate of likelihood, to produce consistent risk rankings across the identified risks. These values are shown in Figure 3-1 and Figure 3-2.

| Step 1 - What is the Most Credible Consequence? | | | | | |
|---|---|---|---|---|---|
| Consequence Rating | 1<br>Negligible | 2<br>Minor | 3<br>Moderate | 4<br>Major | 5<br>Substantial |
| Safety and Health | First Aid Treatment (or No treatment) | Medical Treatment Injury | Lost Time Injury | Permanent Injury (Paraplegia, Amputation) | Fatality (Single or multiple) |
| Environment and Heritage | Small, contained localised impact / Low level repairable damage | Short lived, well contained environmental impact / Minor remedial action required | Medium term, contained impact / Significant remedial action required | Impacts extend off-site / external ecosystem. Considerable remediation required | Lonr Term irreversible damage / Long Term Remediation required |
| Plant Damage | Little or No Damage | Damage less than $15,000 | Damage between $15,000 and $50,000 | Damage between $50,000 and $100, 000 | Damage greater than $100, 000 |
| Reputation | Brief local negative media coverage. | Local negative media coverage. Site or project problem. | Regional/short negative media coverage. Loss of Client / project. | Sustained national negative media coverage. Loss of long term key client. | International negative media coverage. Loss of business from key sector. |
| Time | Delay / Business interruption <1% of program days | Delay / Business interruption between 1%-3% of program days | Delay / Business interruption between 4%-6% of program days | Delay / Business interruption between 7%-10% of program days | Delay / Business interruption >10% of program days |
| Cost | Additional cost to the business / project <1% revenue | Additional cost to the business / project between 1%-3% revenue | Additional cost to the business / project between 4%-6% of revenue | Additional cost to the business / project between 7%-10% of revenue | Additional cost to the business / project >10% of revenue |

*Figure 3-1 Consequence criteria*

| Step 2 - What is the likelihood of that Consequence occurring in the circumstances? | | | | |
|---|---|---|---|---|
| Likelihood Ranking | | | | |
| Score | Description | | Percentage | Expected Frequency |
| 5 | Almost Certain | Common / Frequent Occurrence | Can be expected to occur 75% - 99% | More than 1 event per month |
| 4 | Likely | Is known to occur or "It has happened regularly" | Can quite commonly occur 50% - 75% | More than 1 event per year |
| 3 | Possible | Could occur or "I've heard of it happening" | May occasionally occur 25% - 50% | 1 event per 1 to 10 years |
| 2 | Unlikely | Not likely to occur very often | May infrequently occur 10% - 25% | 1 event per 10 to 100 years |
| 1 | Rare | Conceivable but only in exceptional circumstances | May occur in exceptional circumstances 0% – 10% | Less than 1 event per 100 years |

*Figure 3-2: Likelihood criteria*

### 3.1.3 Risk rating

A Risk Rating Table (Figure 3-3) is used to evaluate the severity of the risk for each environmental aspect. As shown, the matrix axes are those of likelihood and consequence using the measures given above. A scale of consequences from 1 to 5 is used to indicate increasing severity. The consequences are potential outcomes as a result of a hazard occurring. The severity of the risk determines the level of management action required as detailed in Figure 3-1 and Figure 3-2.

**Step 3 – Determine the Risk Level**

Determine the risk score by combining most credilble consequence with likelihood

| Likelihood \ Consequence | Rating | Negligible 1 | Minor 2 | Moderate 3 | Major 4 | Substantial 5 |
|---|---|---|---|---|---|---|
| Almost Certain | 5 | 5 (Low) | 10 (Moderate) | 18 (Very High) | 23 (Extreme) | 25 (Extreme) |
| Likely | 4 | 4 (Low) | 9 (Moderate) | 17 (Very High) | 20 (Very High) | 24 (Extreme) |
| Possible | 3 | 3 (Low) | 8 (Moderate) | 13 (High) | 19 (Very High) | 22 (Very High) |
| Unlikely | 2 | 2 (Low) | 7 (Low) | 12 (High) | 15 (High) | 21 (Very High) |
| Rare | 1 | 1 (Low) | 6 (Low) | 11 (Moderate) | 14 (High) | 16 (High) |

*Figure 3-3: Risk level matrix*

*Table 3-1 Risk severity*

| Risk Severity | Management Required |
|---|---|
| **Extreme** | Approval to work cannot be given. A work method that has a lesser residual risk must be used. |
| **Very High** | Immediate management action required. EWMS approved by the BU Environmental Manager. Supervision must be present whilst the activity is being undertaken. |
| **High** | Priority management action warranted. An EWMS or SEP must be approved by ESR. Daily inspection by Supervisor completed. |
| **Moderate** | Management action warranted. |
| **Low** | Management action should be considered, particularly for low-level impacts that nevertheless occur on a continual basis. |

The hazards and risk assessment uses Table 3-1 to consider the potential consequences, probability and risk of several hazards and allows management of specific risks to be prioritised. The risk rankings were developed further by taking control and mitigation measures into consideration and providing a subsequent risk ranking based on the implementation of these measures.

The results of the initial hazards and risk assessment and the proposed management controls to negate or minimise risks are presented in Appendix A and Appendix A2 of the CEMP, as well as being discussed in more detail in the relevant sub-plans.

# 4 Pre-emptive actions to be taken

## 4.1 Preparedness

The key to effective prevention of incidents is risk assessment, procedure development, monitoring and training. During construction activities, the project's inspections and preventive actions include:

- Activity specific and daily risk assessments
- Development of work procedures and construction method statements in consultation with relevant staff such as work teams, environment team members and senior management
- Daily inspections of active work sites
- Completion of routine environmental checklists
- Issue and quick close-out of non-compliance notices
- Ongoing environmental training
- Environmental management audits of work sites, subcontractors and compliance issues
- Community notification and construction updates
- Environmental Work Method Statements (EWMS)
- Work Packs provide the structure for documenting major areas of the work including risk and quality and align design and constructability early in the process. The Work Packs draw together and/or reference other related documentation (including JSEAs) to demonstrate to all stakeholders that all relevant issues have been considered in planning the works.

Activities associated with potential or major environmental incidents are identified within management plans, such as the Soil and Water Management Plan. Incident management procedures are included in Section 5.2.

In addition, the following specific measures (Table 4-1) are to be implemented to minimise the risk of an incident occurring.

*Table 4-1: Controls measures*

| Category | Hazard | Controls |
|---|---|---|
| **Spills and leaks (chemical, fuel, hazardous liquids)** | • Refuelling<br>• Transport of chemicals, fuel and hazardous liquids<br>• Handling, storage and disposal of chemical, fuel and hazardous materials<br>• Plant and equipment maintenance<br>• Site establishment - site compounds, access points and access routes<br>• Adjustments of existing public utilities<br>• Vehicle wash down<br>• Concreting activities<br>• Watercart operations<br>• Dismantling of existing structures<br>• Concreting activities<br>• Site revegetation<br>• Operation of site compound. | • Plan and implement works to minimise the possibility of pollution<br>• Use and store chemicals and dangerous goods strictly in accordance with relevant legislation, manufacturer instructions and the SDS<br>• Establish transport, handling, storage and application methods (with the relevant method statement) to prevent chemical, fuel and lubricant spillage on or around the site<br>• Keep adequate quantities of emergency response materials, such as oil spill kits, absorbent materials, sand bags, flocculating agents and pH buffer solutions, readily available and in designated compounds. Also keep oilspill kits in emergency response, Superintendents' and the Environmental Site Representative's vehicles and vehicles that carry substantial quantities of chemicals<br>• Provide temporary bunding for refuelling or maintenance of plant and equipment, mixing cutting oil with bitumen or any other activity that could result in spilling a chemical, fuel or lubricant (where the activity occurs in a location with direct drainage to a waterway or environmentally sensitive area). Refer to the Refuelling Protocol<br>• Ensure chemical drums removed from bunded areas are not left unattended<br>• The major response to spills and leaks will involve containing the offending material<br>• Where safe to do so, install containment measures such as sandbags, booms, earth bunds or cut drains to capture and retain spilled material and prevent it from leaving site, entering any watercourse or impacting on vegetation stands. |
| **Storage of liquids (chemicals, fuel, hazardous materials)** | • Site establishment - site compounds, workshop, stores, access points and access routes<br>• Transport of chemicals, fuel and hazardous materials<br>• Dismantling of existing structures<br>• Dewatering<br>• Sediment basin management<br>• Removal, stockpiling and respreading of soil<br>• Operation of site compound<br>• Removal, stockpiling and respreading of soil | • Bund and cover all liquid storage areas – ensure 120% of liquids stored can be captured within the bund<br>• Ensure that storage areas are not within 20 m of a drainage line, flood-prone areas or on slopes steeper than 1:10 or near vegetated areas<br>• Monitor and drain water captured in the bunded storage area (as required) after each rain event to ensure bund capacity is maintained at all times<br>• Arrange appropriate treatment or removal if the water is not suitable for discharge. Any water discharged from site must be prior approved through the Permit to Dewater system. Contact Environment Staff for Permit<br>• Ensure records are kept of water quality checks, discharges and any remedial actions taken. |

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|---|---|---|
| | • Contaminated soils, Acid sulphate soils, contaminated materials. | |

| | | |
|---|---|---|
| **Bushfire** | • Vegetation clearing<br>• Handling, storage and disposal of hazardous materials | • Firefighting equipment will be available on site to facilitate an immediate response to a fire incident and help ensure the safety of public and property |



| Category | Hazard | Controls |
|---|---|---|
| | • Dismantling of existing structures<br>• Construction activities involving hot works (open flame equipment)<br>• Adjustments of existing public utilities. | • Fit spark arrestors to plant that could discharge sparks while being used during proclaimed high fire danger periods<br>• No cutting, welding, grinding and other activities with the potential to generate sparks will take place in the open on total fire ban days<br>• In areas of high risk, fire mats will be placed under areas being used for welding<br>• Provide personnel involved in work where there is a risk of fire being caused by hot work, such as welding or in burning-off operations, with adequate training about fire prevention, safety and basic firefighting skills<br>• Equip personnel and vehicles involved in such activities with firefighting and safety gear. |

| | | |
|---|---|---|
| **Flood** | • Working in or around flood prone areas. | • Ensure plant and equipment is stored above flood level<br>• Monitor weather conditions<br>• Plan and implement works to minimise the possibility of pollution<br>• Flood mitigation equipment will be available on site to facilitate an immediate response to a flood incident and help ensure the safety of public and property<br>• Equip personnel and vehicles involved in such activities with flood mitigation equipment and safety gear. |
| **Construction Occupational Health & Safety** | • Transport<br>• Survey work<br>• Plant and equipment<br>• Noise impacts<br>• Identified and unidentified utilities<br>• Worker safety<br>• Hazardous materials<br>• Manual handling<br>• Electrical hazards<br>• Blasting<br>• Confined spaces<br>• Plant rollover. | • Ensure site safety procedures are implemented.<br>• Note: WHS risks are only covered in a broad sense in this plan but are covered comprehensively through the Safety & Health Management Plan and JSEA processes. |

## 4.2 Communicating with neighbours and local community

Information prepared for distribution to the community will be tailored to the needs of the target group and approved by Transport for New South Wales (TfNSW) before release. It may address progress, traffic disruptions and controls, temporary detours, work outside normal hours and will be provided as:

- A community notice
- Advertisements (e.g. progress updates, road closures, disruption to traffic)
- Newsletters
- Brochures
- Internet updates
- Noticeboard information
- Door-knocking
- In a display / information area.

Key community groups along the project include:

- Rural landholders and managers
- Interest groups (environmental and commercial)  Adjacent residential communities.

In the event of a pollution incident, affected community members will be notified of any measures they can undertake to minimise the risk of harm. This will be carried out by emergency services or project personnel as relevant. Measures to minimise harm may include but is not limited to the following:  Shutting windows and doors

- Remaining inside
- Avoiding the use of water in creeks
- Evacuate if instructed by emergency services.

## 4.3 Minimising harm to persons on the premises

In the event of an emergency that is likely to cause harm to persons, the Emergency Response Management Plan shall be followed. The PIRMP will support this plan in the event that the incident also results in Risks to the environment.

## 4.4 Safety equipment

The project WHS Manager and Environmental Site Representative (ESR) shall ensure that emergency equipment is available at each site, and appropriately located and maintained in good working order.

A summary of the safety equipment to be kept on site and the location of storage on the premises is provided in

*Table 4-2: Safety Equipment and location to be stored on-site*

| Safety Equipment | Storage Location |
|---|---|
| General purpose fire extinguishers and fire extinguishers suitable for control of electrical/oil/fuel/chemical fires | Site compounds – e.g. AF2 Elizabeth Drive and other compounds as they are developed<br>At active work locations and designated vehicles |

| | |
|---|---|
| Plant and clean–up equipment | Throughout the site |
| **Safety Equipment** | **Storage Location** |
| Spill kits | Site compounds and designated vehicles<br>Plant refuelling areas<br>Onsite when performing high risk activities<br>Marine (hydrophobic) spill kits and floating booms at creek lines |
| Bunding, twin-skinned storage containers, spill pallets and related chemical storage equipment | Site compounds, designated vehicles and hardstand areas |
| Erosion and sediment control supplies and equipment such as, geotextile, gravel socks, silt fence, etc. | Site compounds |
| First aid kits | Site compounds<br>In site vehicles and plant |
| Personal Protective Equipment (PPE) | All personnel will be responsible for storage of their PPE.<br>Additional PPE will be stored at the site compounds for short term use (visitors etc.) |

Specialised equipment available for an emergency response will be maintained in a 'fit for purpose' state. Other equipment available for incident response needs to be identified at each site, for example, specific construction vehicles and other equipment types available on site. On call equipment will be obtained through hire companies.

The WHS Manager, in consultation with the ESR, shall maintain a list of safety and environmental emergency response equipment held in the project store, ensure the ongoing availability of an adequate stock of consumable equipment and ensure all emergency equipment is being inspected, tested and maintained as necessary.

## 4.5 Inventory of pollutants

The primary dangerous goods and chemicals (including fuels) that may be used and stored onsite are shown in Table 4-3. Potential pollutants will be stored in a bunded area, double skinned containers or other suitable areas when not in use within the site compound areas. Safety equipment and Safety Data Sheets (SDS) will be located at suitable locations within the site compound areas.

Prior to arrival on site all dangerous goods are to be included on the dangerous goods register maintained by the Health and Safety Manager, and the required SDS obtained via 'ChemAlert.' Checks of dangerous goods storage areas will be undertaken and recorded as part of the regular site inspections to confirm that materials and associated quantities stored on site are consistent with the active register.

*Table 4-3: Dangerous Goods stored on-site*

| Pollutant | Potential maximum quantity to be stored |
|---|---|
| Accent Ceiling White paint | 50 litres |
| Accent Interior Low Sheen | 20 litres |
| AD blue | 20 litres |
| Bitac Primer | 40 litres |
| Bostik Plumbtec PVC Priming Fluid | 5 litres |
| Bostik PVC Pipe Cement N Blue | 5 litres |
| Bostik PVC Pipe Cement N Clear | 5 litres |
| Bostik PVC Pipe Cement P Clear | 5 litres |
| Bostik PVC Pipe Cement P Green | 5 litres |
| Bostik PVC Priming Fluid - Red & Clear | 5 litres |
| **Pollutant** | **Potential maximum quantity to be stored** |
| BP Kerosene | 60 litres |
| Concure A99 | 100 litres |
| Cummins PGXL Coolant | 10 litres |
| Diesel | 10 litres |
| Dy- Mark Spray Blue | 20 cans |
| Dy - Mark Spray Ink | 50 spray cans |
| Dy- Mark Spray Orange | 20 cans |
| Dy- Mark Spray Pink | 22 cans |
| Dy- Mark Spray Yellow | 10 cans |
| Expanding filler foam | 10 litres |
| Garden 2T 2 Stroke oil | 5 litres |
| Hilti R.E Hit 500 Epoxy | 20 litres |
| Intercrete 4841 Part A & B | 10 litres |

| | |
|---|---|
| Liquid Petroleum Gas (LPG) bottles | 3 bottles |
| Megapoxy P1 Part B | 60 litres |
| Multi-Purpose Grease | 10 litres |
| Petrol | 90 litres |
| Protex (R) | 25 litres |
| Protex Bond Seal | 1 litre |
| Protex PVC Cement | 25 litres |
| PVC Cement N type | 5 litres |
| Render Refresh Low Sheen | 60 litres |
| Rendero C | 60 litres |
| Road marking paint | 50 litres |
| Roof silicone | 300 grams |
| Sika Aqua Primer | 20 litres |
| Solar guard low sheen | 5 litres |
| Thinning cleaning solvent | 20 litres |
| Truck wash | 20 litres |
| Turpentine | 5 litres |
| Turbiclear | 1000 litres |
| Two stroke oil | 5 litres |
| Vinidex Primer Red | 20 litres |
| Vital Bon-Matt HR or Stonewall | 1000 litres |
| Weather Shield | 10 litres |
| Weston oil | 500 grams |
| White road making paint | 50 litres |

The associated work tasks for each potential pollutant are outlined in Table 4-4 below *Table 4-4: Pollutants and associated work tasks*

| Pollutant | Location | Controls |
|---|---|---|

| | | |
|---|---|---|
| Dangerous Goods | Dangerous Goods Register includes location and indication of quantities stored on the site | • The register is maintained by the WHS Manager and will be made available to emergency services as required<br>• Safety data sheets are available in first aid rooms<br>• Hazardous and dangerous substances (including all fuels, oils, lubricants and chemicals) brought onto the worksite are only to be |

| Pollutant | Location | Controls |
|---|---|---|
| | | handled or stored within designated bunded areas to ensure retention of any spills or leaks<br>• Storage and bunding for areas for hazardous liquids is to conform with AS1940 – Storage and Handling of Flammable Liquids and AS/NZS 4452<br>• Storage and Handling of Toxic Substances. Storage of hazardous solids is in accordance with the SDS and where practicable is to be undercover within bunded areas. |
| Waste handling and storage | Waste required to be handled and stored on site prior to on-site reuse or off-site reuse / disposal | • Spoil, topsoil and mulch are to be stockpiled on site in allocated areas, where appropriate, and mitigation measures for dust control and surface water management will be implemented as per the Air Quality Management Sub-Plan and the Soil & Water Management Sub-Plan<br>• Liquid wastes are to be stored in appropriate containers in bunded areas until transported off site. Bunded areas will have the capacity to hold 110% of the liquid waste volume for bulk storage or 120% of the volume of the largest container for smaller packaged storage<br>• Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the Environmentally *Hazardous Chemicals Act 1985* and the EPA waste disposal guidelines<br>• All other recyclable or non-recyclable wastes are to be stored in appropriate covered receptacles (e.g. bins or skips) in appropriate locations on site and contractors commissioned to regularly remove / empty the bins to approved disposal or recycling. |

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| Erosion and sediment | Approved sediment basins and discharge locations (see EPL) | • Erosion and sediment shall be managed in accordance with the Soil and Water Management Sub-Plan (SWMP). This includes the following:<br>– Maximise the diversion of storm water runoff containing suspended solids to sediment basins<br>– Maximise the reuse of captured storm water<br>– Meet project water quality standards prior to release:<br>▪ pH between 6.5-8.5 ▪ Turbidity below 50NTU<br>▪ no visible grease or oil<br>– Obtain an approved water discharge permit prior to release<br>– Floats and other devices including hard (fail safe) controls used at the pump inlet<br>– Basin must be discharged within five days of the cessation of rainfall<br>• All basins are designed to meet the 85th percentile (five day) rainfall depth (mm) average value this equates to 35mm (Penrith 85th percentile) for five day rainfall event, after which over-topping may occur<br>• All basins shall be treated to project water quality standards prior to active discharge from site by project personnel. |
| Air quality | Earthworks, temporary haul roads, batch plants | • All air quality shall be managed in accordance with the Air Quality Management Sub-Plan (AQMSP)<br>• Precautions to minimise the generation of dust will include:<br>– Spraying of earthworks, roads and other surfaces as necessary with water or other suitable liquids<br>– Providing dust suppression equipment to any on-site materials batching plant<br>– Sealing of temporary haul roads<br>– Applying dust block or similar material to exposed surfaces to suppress possible generation of dust during periods of high winds<br>– Compacting exposed surfaces in the event of high winds |
| **Pollutant** | **Location** | **Controls** |
| | | – Modification of operations during high or unfavourable wind conditions. |

## 4.6 Contact details

*Table 4-5 Contact Details*

| Organisation | Name | Number/s | Other Details |
|---|---|---|---|
| CPBGG JV Project Director | Vishal Khosla | 0434 076 927 | |

| | | | |
|---|---|---|---|
| CPBGG JV Environmental Site Representative | Sen Keomongkhoun | 0437 346 835 | |
| CPBGG JV Construction Manager | Noel Kollakompil | 0439 645 597 | |

| | | | |
|---|---|---|---|
| CPBGG JV Safety Manager | Kellie McConnell | 0474 256 067 | |
| CPBGG JV General Superintendent | Ken Rogers | 0434 076 931 | |
| Community Relations Manager | Elise Marley-Wallace | 02 8668 6954 | |
| 24 hour Emergency Contact | Vishal Khosla | 0434 076 927 | Project Director |
| | Sen Keomongkhoun | 0437 346 835 | Environmental Site Representative |
| TfNSW Project Manager | Kandiah Mahendran | 0438 190 969 | |
| TfNSW Senior Manager Environment and Sustainability | Sheila Anderson | 0466 526 045 | Notify for all incidents |
| TfNSW Environment and Sustainability Manager | Daniel Saunders | 0475 605 723 | Notify for all incidents |
| Independent Environmental Representative | George Kollias | 0410 664 122 | Notify for all incidents |
| NSW Police | | 000 | |
| NSW Fire Brigade | | 000 | |
| NSW Ambulance Service | | 000 | |

| | | | |
|---|---|---|---|
| NSW Fire and Rescue | | 000 | For pollution incidents that present an immediate threat to human health or property |
| | | 1300 729 579 | For pollution incidents that do not present an immediate threat to human health or property |
| Nepean Hospital | | 02 4734 2000 | |

| Organisation | Name | Number/s | Other Details |
|---|---|---|---|
| Rural Fire Services | | 000 | |
| SES | | 132 500 | |
| Poisons Information | | 13 11 26 | |
| EPA Pollution Line | | 13 15 55 | Notify in the event of 'material harm' |
| Bushfire Information Line | | 1800 679 737 | |
| NSW DPI (Fisheries) | | 1300 550 474 | Notify in the event of 'material harm' |
| WIRES | | 1300 094 737 | |
| SafeWork NSW | | 13 10 50 | Notify in the event of 'material harm' |
| NSW Public Health Unit | | 02 4734 2000 | Notify in the event of 'material harm' |
| Penrith City Council | Ari Fernando | 02 4732 7569 | Notify in the event of 'material harm' |
| Liverpool City Council | Charles Wiafe | 0417 175 763 | Notify in the event of 'material harm' |
| Sydney Water | | 13 20 92 | Notify in the event of any incidents involving Sydney Water assets |
| Water NSW | | 1300 662 077 | Notify in the event of 'material harm' |

## 4.7 Training of emergency response personnel

The Project Director, in consultation with the WHS Manager and relevant Zone Manager, will determine the specific competencies required to respond to an emergency situation on each site and the training required to achieve the level of expertise required. An example of the kinds of environmental incident response competencies (training requirements) required of key personnel is provided at Table 4-6.

Training will be provided to:

- Provide (or refresh) specific skills such as emergency response drills, evacuations, fire wardens, first aid, etc.
- Enable the proficient use of specialised equipment
- Ensure detailed familiarity with the provisions of this plan and supporting procedures
- Ensure learnings from mock evacuation and other emergency management exercises are communicated
- Ensure knowledge of legislative and statutory requirements.

All project personnel and subcontractors will also receive some training to ensure that they are fully aware of their roles and responsibilities in the event of an emergency situation arising. This training will generally be provided through:

- Site Inductions:
  - Provided to all employees and subcontractors prior to commencement on site − Content includes basic emergency procedures and incident reporting.
- Toolbox Meetings:
  - Mainly covers safety issues but can be used as refresher training on response procedures, dealing with the public, locations and use of response equipment.

Specific training will also be provided to Emergency Response Teams to ensure their roles and responsibilities in relation to construction site significant incidents / emergencies are understood and they are fully trained in responding to construction site emergencies.

*Table 4-6: Example of environmental incident response competencies*

| Position | Training Requirement | | | | |
|---|---|---|---|---|---|
| | Incident Response | Storage and Handling of Chemicals | Oil Spill Clean Up | Concrete Washdown Management | Dealing with Media |
| Project Director | X | | | | X |
| WHS Manager | X | X | X | | |
| Construction Manager | X | | | | |
| Environmental Site Representative | X | X | X | X | |

| | | | | | |
|---|---|---|---|---|---|
| Emergency Response Teams | X | X | X | X | |
| WHS Coordinator | X | X | X | | |
| Environmental Coordinator | X | X | X | X | |
| Project Managers | X | X | X | X | |

## 4.8 Testing plans

Environmental response procedures may be tested in areas where a pollution risk is present, such as in workshops. Personnel involved in emergency response activities will be provided with specific training.

An up-to-date list of emergency response personnel and organisations will be maintained at the main office and compounds. An example of the format that will be used is in Section 4.6. Testing of the plan every 12 months, with the first test to occur within 6 months of contract award, to ensure that information in the plan is accurate and capable of being implemented effectively. The plan will be tested within one month of any pollution incident. The project will maintain all PRIMP implementation and testing records.

Possible testing scenarios may include but are not limited to the following:

- Plant roll over near waterway
- Flood response
- Small spill response.

# 5 Emergency procedures

Clause 4.3 of TfNSW QA Specification G36 requires the development of an Emergency Spill Response Sub-Plan (ESRP). The information to be included in the ESRP has been embedded into this PIRMP for ease of implementation. This stage-specific ESRP has been prepared in accordance with the Code of Practice for Water Management (RTA, 1999) and relevant EPA guidelines. The Plan will:

- detail measures to avoid spillage of fuels, chemicals and liquids, particularly near and/or into waterways,
- detail prompt spill containment and clean-up procedures if any spills occur on land, in surface drains and/or waterways,
- detail onsite locations of emergency wet and dry spill equipment/kits,
- detail procedures for recording and notifying TfNSW of all spills,
- provide a clear outline of when the ESRP will be implemented and who will be responsible for its implementation.

CPBGG JV will ensure emergency spill kits and response material are available onsite at all times during Construction. Spill kits will be located at all ancillary facilities and main construction work areas. All site personnel (including sub-contractors) will be made aware of the location of spill kits and trained in its use. The Emergency Spill Response Plan will be implemented in conjunction with PIRMP and the TfNSW Environmental Incident Classification and Reporting Procedure (Appendix A7 of the CEMP).

The emergency spill response process flow chart (Refer to Figure 5-1) provides an overview of the process to be undertaken to minimise the risk of offsite discharge of pollution from chemicals, dangerous goods or other potential contaminants. Further details are also provided in the sections below.

The unplanned release of liquid chemicals, dangerous goods and other potential contaminants during storage and handling has the potential to pollute surface water, stormwater and groundwater and for contaminating soil. The following sub-sections identify environmental management practices to eliminate, prevent or minimise the risk of discharging pollutants to soil, surface water, stormwater and groundwater.

The procedure for spill management is detailed below in Figure 5-1.

## 5.1 Locating storage containers / bunds

Chemicals, fuel and lubricants will be stored in suitably located, clearly marked Class 3 dangerous goods storage containers to minimise the impact of any spillage or contamination on the work location or adjoining areas. Class 3 containers are equipped with an internal door release, ventilation, bunded floor and a lockable stainless-steel valve in the bund wall. Chemicals, fuel or lubricants will not be stored within 50 metres of any aquatic habitat, flood prone areas or on steep slopes.

The type and volume of chemicals, fuel and lubricants to be stored do not justify the construction of bunded areas for material storage, however, should a bunded area need to be constructed, it must comply with the requirements of:

- Australian Standard AS 1940B 1993: The Storage and Handling of Flammable and Combustible Liquids,
- Australian Standard AS 4452B 1997: The Storage and Handling of Toxic Substances; and the
- *Dangerous Goods Act 1975*,

The containment system to be adopted should be compatible with the material being stored and provide an impervious barrier to prevent spills from discharging outside the containment system.

The net capacity of a bunded area must be at least 120% of the net capacity of the largest container.

All surface water flows should be diverted around or away from storage areas.

## 5.2 Maintaining storage containers / bund areas

To minimise the potential for spills to occur, the following measures should be implemented by the Foreman responsible for the storage area:

- all storage areas should be secured against unauthorised entry,
- chemicals in storage should be properly labelled and have Safety Data Sheets (SDS) readily available in the work area,
- where possible, all storage areas should be roofed. If this is not possible, any stormwater entering such areas should be observed for contamination before appropriate discharge,
- the drain valve remains in the fully closed position at all times when not in use and can only be opened by the responsible person,
- all containers within a storage area should be sealed,
- the "open" or "closed" positions on the drain valve must be clearly visible and locked when not in use,
- the bund is under close supervision and local water quality will be visually monitored (turbidity, hydrocarbon spills/slicks) on a regular basis to identify potential spills or sediment-laden runoff,
- the drains valve is routinely maintained to ensure it operates as designed,
- the dangerous goods container / bund wall is routinely inspected to ensure it is always impervious to liquids,

- any pipework, valves and other equipment are routinely inspected,
- spillages of solid or liquid material within the dangerous goods container / bunded area is to be cleaned up immediately (Section 5.7); and
- after rainfall, all bunds (if present onsite) are emptied as soon as possible to maintain full capacity. Never allow rainwater to build up to a level where leaking dangerous goods can float over the top of the bund.

## 5.3 Handling materials

To minimise the potential for spills to occur while handling and transferring materials, the following measures should be implemented:

- personnel trained in preventing the risk of spills or leaks should be present during handling or transferring liquid chemicals, dangerous goods and other potential contaminants,
- handling areas and transfer points should be well separated from boundaries and protected places such as residences, public areas, hospitals and schools,
- all surface water flows should be diverted around or away from chemical handling areas,
- all vehicles should be inspected for leaks before and after loading and unloading liquid chemicals, dangerous goods and other potential contaminants,
- hoses, couplings and other equipment should be regularly inspected for failures or leaks,
- transfer points outside a handling area should be provided with suitable spill kits and containment,
- all connections used during the transfer of liquid chemicals, dangerous goods and other potential contaminants between vehicles and storage tanks should have tight fittings,
- all transfer hoses should be protected from vehicles driving over the hose or striking its connection,
- all nozzles and valves used during the transfer of liquid between tankers and storage tanks should be fitted with shut-off valves to prevent overflow,
- transfer pumps should be provided with emergency shut-down devices,
- hoses should be purged before uncoupling,
- overfill protection devices should be regularly inspected, and
- stormwater from handling areas should be tested before discharge to minimise discharge of pollutants.

## 5.4 Spill Kits

Spill kits are to be located at hazardous materials storage locations, in site compounds and in CPB light vehicles. Typical spill kit materials, their application and use are described in Table 5-1.

*Table 5-1: Typical spill kit materials and their application*

| Material | Application |
|---|---|
| **Booms** | Floating booms to be used for spills in waterways to prevent spreading. Deploy booms first to contain spill or divert spill away from waterway.<br>Reduce the size of the spill by gently pushing the booms towards the centre of the spill. |
| **Pillows** | Lay down pads or pillows are best for thickly spread liquids. |

| | |
|---|---|
| **Granules / Particulates** | If the booms alone cannot absorb the spill/leak, then use absorbent granules to soak up spilled liquid. |
| **Pads** | If the booms alone cannot absorb the spill/leak, then use absorbent granules to soak up spilled liquid. |
| **Sorbents** | Sorbents are materials that soak up the spill and are used in waterway spills where spill material will float on the water. Once the absorbent material has been applied to the spill material, the mixture is recovered with the aid of nets, rakes, forks or pike poles. |

## 5.5 Assessment of spill / situation

The assessment of potential spills will be completed via the following process:

- stop all work in the affected area,
- ensure the safety of all workers, visitors and the public in the vicinity of the spill / leak,
- conduct a short assessment of the affected area and notify the Environmental Site Representative (ESR) and / or Supervisor of the results of this assessment, the assessment should include:
  - quantity of the substance spilt,
  - type of substance (i.e. corrosive, poisonous, flammable etc),
  - location, and potential impact on the environment, and the health and safety of personnel
  - whether the spill is manageable by Project Staff of if emergency services needs to be contacted, and
  - the best method of clean up (only after referring to the substance's SDS),
- refer to the container label or SDS for detailed information on the substance spilled and to determine the appropriate Personnel Protective Equipment (PPE) and clean up / storage and disposal requirements,
- where the spill is not manageable and presents an immediate danger to people, property or the environment, the following needs to be determined:
  - whether sufficient spill control equipment and materials, and personal protective equipment exist onsite to deal with the spillage,
  - whether attempts to deal with the spill onsite would pose any risk to personnel safety,
  - whether the site's Waste Management Contractor should be contacted for clean-up, removal and safe disposal of the substance,
- where it is determined that the spill cannot be managed by the resources onsite, efforts shall be made (only where safe to do so) to protect stormwater drains and sensitive areas. The ESR or Project Manager will notify the NSW Fire Brigade (Phone 000) and other relevant organisations in accordance with Section 5 of this PIRMP.

## 5.6 Spill Management

### 5.6.1 Personal Protective Equipment

Prior to any clean-up, appropriate PPE is to be worn as per the SDS. No clean-up should occur without the correct PPE.

### 5.6.2 Control the Source

If there is a possibility that the spill / leak will either contaminate a greater area or move offsite, protect drains, channels or any other pathways that would lead to further spread or release offsite.

Geo-fabric, absorbent materials, booms and sandbags should be placed around drains and grates, as required, to prevent the material spreading or leaving the site.

Stop the spill/leak from spreading by:

- putting the lid on,
- turning container up right,
- turning off machinery,
- plugging the hole if possible,
- using absorbent materials from spill kit (i.e. booms, pads, pillows, granules, etc.),
- digging a hole to collect the spill,
- using sand bagging or silt sausages,
- making use of any handy physical barrier; and
- Pacing booms around the outside edges of spilled liquid, overlapping them to prevent leakage, and ensuring there are no gaps between the boom and the affected surface.

### 5.6.3 Protect drains and other pathways for contaminant escape

In order to minimise risk of offsite spread and/or discharge the following steps will be undertaken:

- stop the spill / leak from spreading by using:
- absorbent materials from the spill kit (i.e. booms, pads, pillows, granules etc.), sand bagging, spoil or impermeable material; and any handy physical barrier.
- place booms downslope and around outside edges of spilled / leaked substance. Ensure booms are overlapped to prevent leakage,
- ensure there are no gaps between the boom and the affected surface.

## 5.7 Spill clean up

Clean-up measures will be undertaken as required and may include any combination of the following, depending on spill type and location:

- if required, deploy booms to contain and soak up spill,
- utilise pads or pillows to soak up spill,
- utilise granular sweep (remedial if possible) and work into spill. Use sufficient sweep to adequately absorb all spilt liquid,
- the ESR is to consider if onsite remediation of the spill can be effectively completed (i.e. bio-remedial treatment),
- if, in the ESRs opinion, the spill cannot be dealt with using the onsite remediation, the contaminated soils and spill response products are to be collected up in bags or bins and disposed of at a waste facility appropriately licensed and approved to accept such waste

### 5.7.1 Replace spill kit components

The ESR is to arrange replacement of the used components as soon as possible considering the risk of future spills and their resultant impacts at that location.

## 5.8 Disposal of contaminated material

Spilled waste and materials used to control the spill must be stored temporarily in an impermeable and covered container while being classified in accordance with the Waste Classification Guidelines (EPA, 2014). The waste classification will determine how the waste must be disposed of.

It is important to note that it is an offense:

- under section 120 of the *Protection of the Environment Operations Act 1997* (POEO Act) to pollute waters,
- under Part 5.6 of the POEO Act to unlawfully transport waste or to permit land to be used unlawfully as a waste facility.

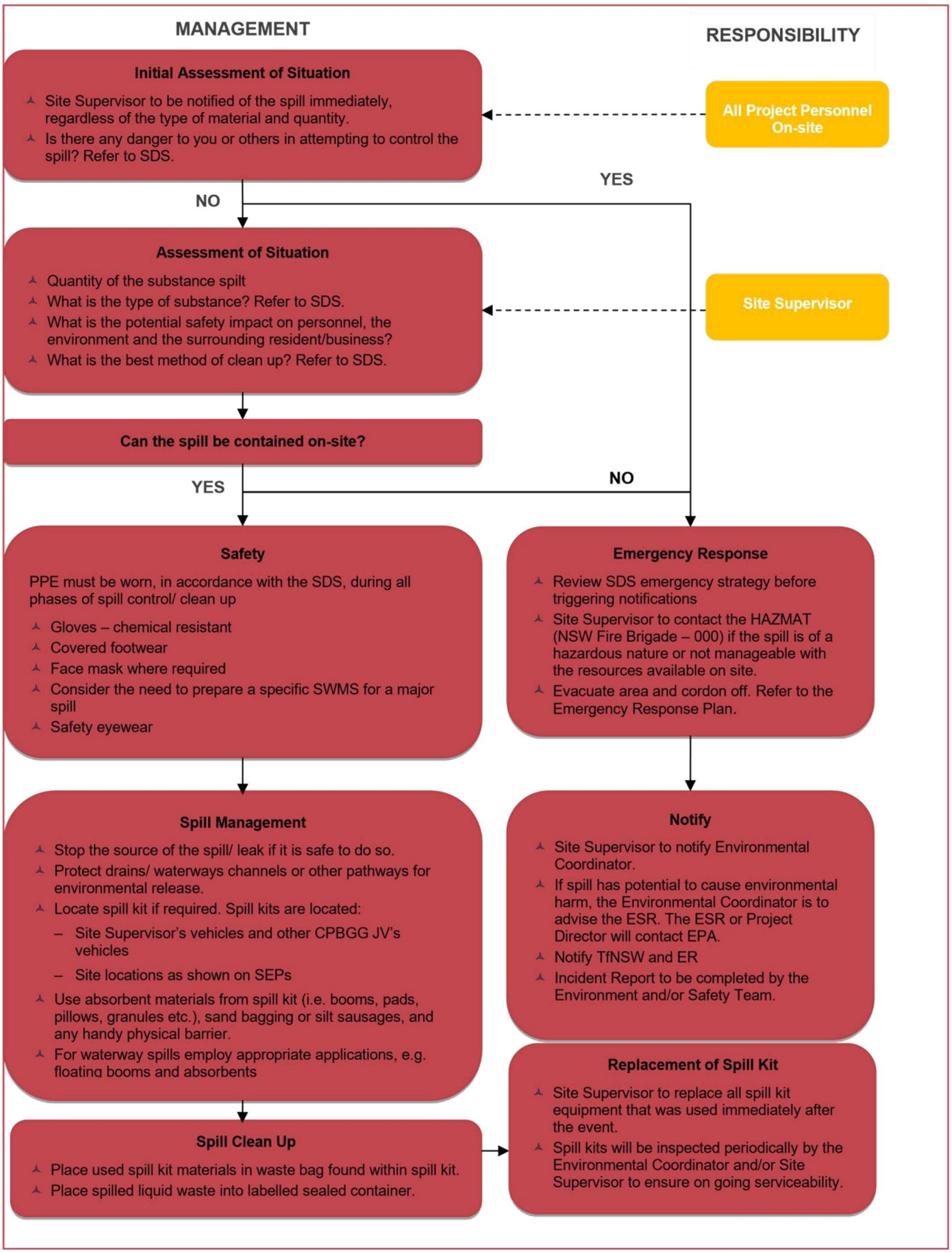



*Figure 5-1: Emergency spill response procedure*

## 5.9 Pollution Incident Notification

The definition of a pollution incident is:

*A pollution incident is an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.*

The ESR will notify the EPA Regional Manager (and/or EPA Pollution Line on 131 555) immediately (i.e. promptly and without delay) of pollution incidents which have occurred during the project's activities, in the following circumstances (i.e. incident which cause or threaten material harm):

- If the actual or potential harm to the health or safety of human beings or ecosystems is not minor
- If actual or potential loss or property damage (including clean-up costs) associated with a pollution incident exceeds $10,000.

Pollution incidents that could constitute material harm include:

- Sediment basin discharge that does not meet project water quality standards
- Sediment laden water going off-site
- Chemical spill into a waterway for example:
  - Curing compounds
  - Fuels and oils
  - Batch plant overflow
  - Bitumen
  - Concrete
- Dust plume from batching plant  Sewerage leak  Fire.

Furthermore, the following parties shall also be notified;

1. Ministry of Health (via the local Public Health Unit (PHU)) (P: 02 4734 2000)
2. SafeWork NSW - 13 10 50
3. Local Councils
4. Fire and Rescue NSW - 1300 729 579

The TfNSW representative will be notified verbally within two hours and in writing within 24 hours of any pollution incidents involving the EPA.

All incidents shall be notified to the ESR and TfNSW (i.e. Environment and Sustainability Manager) via the Alliance incident reporting system (e.g. Synergy reporting system) in accordance with TfNSW Incident Management and Reporting Procedure and CPBGG JV HSE system (Synergy). All incidents shall be recorded within the project's Monthly Environment Report.

Notification to the community will be conducted using methods outlined in Section 4.5.

## 5.10 Pollution incident response procedures

In the event of a pollution incident follow emergency response and notification procedures show in Figure 5-2 and Figure 5-3 respectively. A pollution incident notification form will be included in Appendix G.

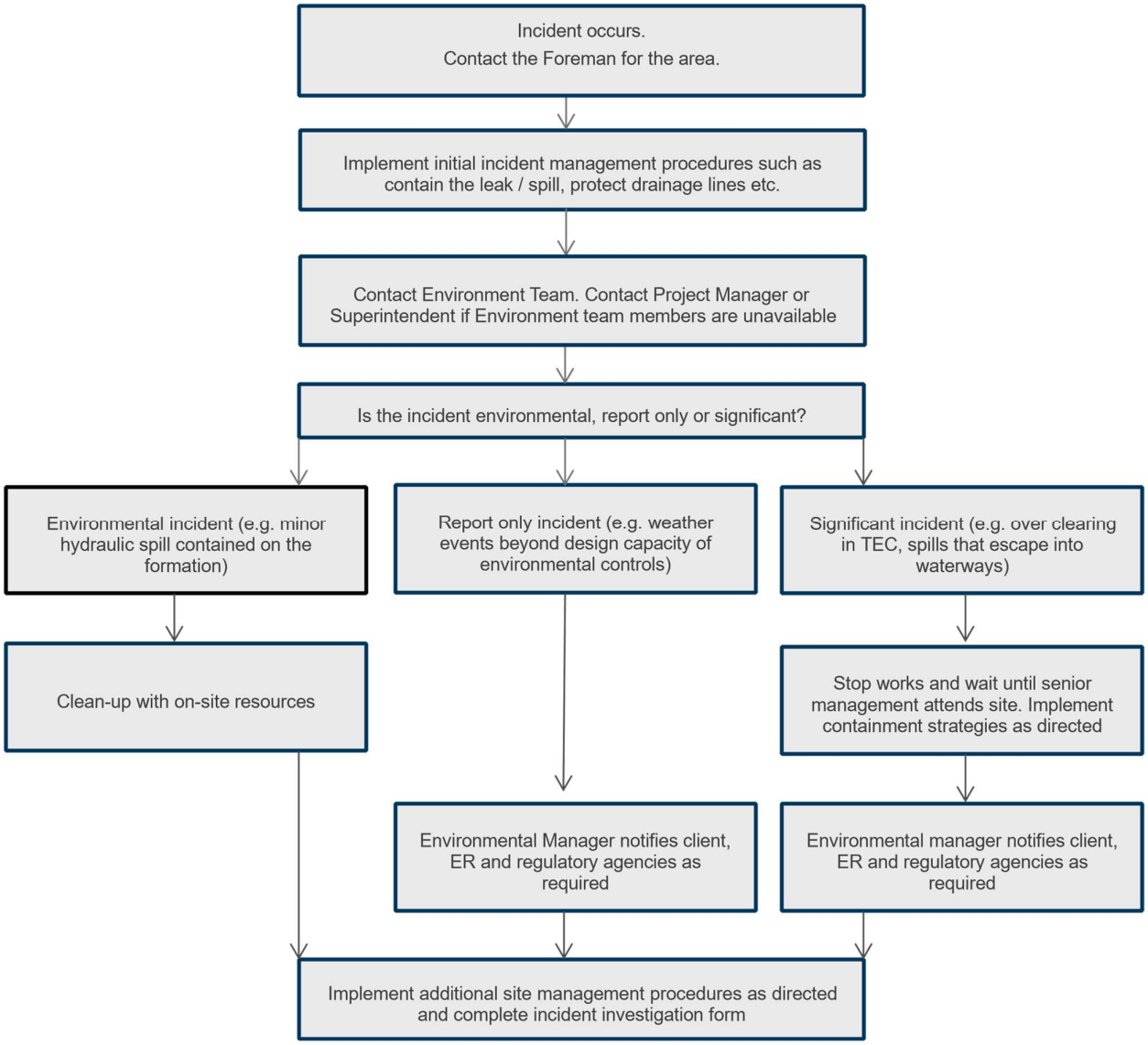
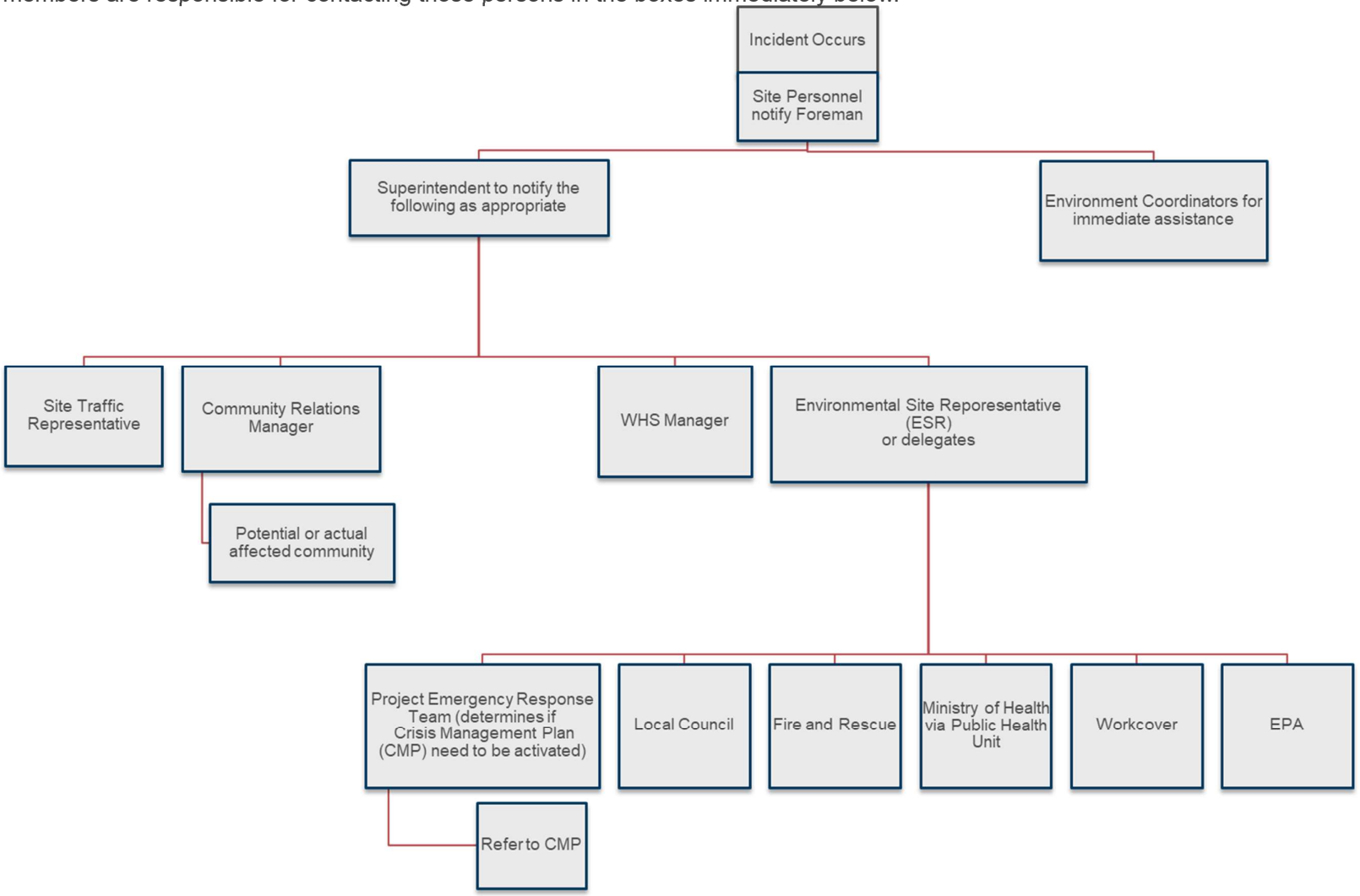



*Figure 5-2: Emergency response procedure*

*Figure 5-3: Notification Process*

Team members are responsible for contacting those persons in the boxes immediately below.



The following flow charts relate to management procedures for spills, remediation of sediment controls and major chemical spills in Table 5-2, Table 5-3, and Figure 5-4.

**PRIOR TO ANY ACTION, IDENTIFY MATERIALS INVOLVED & OBTAIN PERSONAL PROTECTIVE EQUIPMENT**

*Table 5-2 Environmental management procedure for spills*

| Step | Action | Responsibilities | Comments |
|---|---|---|---|
| 1 | Stop further leak | Person causing / finding leak | If leak from oil drum, roll drum so that leak area is uppermost. If leak from pipe, close valve etc |
| 2 | Inform supervisor | Supervisor / Person | Stop human and vehicular traffic and isolate area |
| 3 | Determine the of the leak | Supervisor | For major leaks notify superintendent. If spill has escaped off site / into creek notify Environmental Site Representative immediately |
| 4 | Form barrier around leak / spill | Foreman / Superintendent | Use foam barrier material in kit. Use soil / sand if kit not available |
| 5 | Stop the spreading of leak | Foreman / Superintendent | Transfer fuel / oil from spilled drum into another drum etc |
| 6 | Put barrier around drains / outlets | Foreman / Superintendent | Seal drain grates by putting sand bags etc. around them |
| 7 | Obtain oil spill kit and apply oil absorbent on spill | Foreman / Superintendent | Use absorbent material or equivalent |
| 8 | Clean-up / remove absorbent material to bin | Foreman / Superintendent | Use Chem oil away or equivalent for clean-up of area. Use brush and pan provided in kit |
| 9 | Clean-up hard surface by excavating contaminated soil | Foreman / Superintendent | Stockpile contaminated material in designated area |

| | | | |
|---|---|---|---|
| 10 | Clean-up soft surface by excavating contaminated soil | Foreman / Superintendent | Stockpile contaminated material in designated area |
| 11 | Inform Environmental Site Representative and fill in incident form | Environmental Site Representative | Record incident and review procedures |
| 12 | Re-stock used spill response materials | ESR | All materials used in spill response to be re-stocked in preparation for any future spills. |

*Table 5-3 Procedure for the remediation of sediment control devices*

| Step | Action | Responsibilities | Comments |
|---|---|---|---|
| 1 | Inform area supervisor of problem / exact location and the magnitude | Person causing / discovering the problem | Assess whether the problem can be promptly rectified |
| 2 | If uncontrollable, notify sediment control crews | Foreman / Superintendent | State the magnitude of the problem and the materials required |
| 3. | Divert flow away from existing waterways | Foreman / Superintendent and available machinery | Stop vehicular traffic and construct an earth bund or diversion drain |
| 4 | Form a barrier around the affected area. Establish emergency berm (earth or sandbags) to trap sediment or reduce flow | Emergency response unit | - |
| 5 | Work on the restoration of original control device | Foreman / Superintendent / Operator | Stem the flow and replace damaged control device |
| 6 | Assess impact and devise remedial action for affected waterway and embankment | Environmental Site Representative | Proceed with water quality monitoring |
| 7 | Apply buffering solutions / agents if required | Emergency response unit | Monitor effects of this application |

| | | | |
|---|---|---|---|
| 8 | Clean away sediment build-up deposits before leaving area | Foreman / Superintendent / Operator | Use available machinery |
| 9 | Record all stages of event on Environmental Incident Report form and investigate causes | Environmental Site Representative / Foreman / Superintendent | Witness accounts / photographs/ monitoring results |
| 10 | Review remedial actions and find out if response process can be improved | Environmental Site Representative / Foreman / Superintendent | Initiate change in the process if required |
| 11 | Review incident to determine if environmental system failure. Improve system if required | Environmental Site Representative / Foreman / Superintendent | Initiate change in system if required |

In the event of a major chemical spill or exposure, the following procedure should be implemented:

- Safety first

  STOP WORK IN THE SPILL AREA; AND

  EVACUATE THE AREA IF NECESSARY

- Notify the Environmental Site Representative and Project Director
- Notify the relevant emergency services - Dial 000 and provide as much detail as possible including:
  - location of emergency
  - nature and size of spill
  - UN numbers and/or chemicals involved
- Control the spill

  ATTEMPT TO CONTROL THE SPILL OR EXPOSURE IF IT IS SAFE TO DO SO,

  e.g. SHUTTING OFF VALVES ETC

  DO NOT ATTEMPT TO CONTROL THE SPILL IF IT IS NOT SAFE TO DO SO
- Environmental Site Representative to ensure appropriate internal management are notified
- Environmental Site Representative to ensure appropriate external environment authorities are notified
- Environmental Site Representative to ensure that the appropriate investigation and reporting processes are put in place.
- Re-stock used spill response material

*Figure 5-4: Responses to major chemical spill or exposure*

## 5.11 Pollution Incident Clean up

In the event of pollution incident, clean up actions will be established. This may involve the removal of used spill kits and disposal in appropriate bins, and the removal of sediment. If a pollution incident occurs resulting in material harm the clean-up process will be managed by appropriately qualified and licensed

contractors as necessary (e.g. liquid wastes / asbestos waste) and in accordance with the requirements of the EPA waste disposal guidelines.

The ESR is to arrange replacement of the used components as soon as possible considering the risk of future spills and their resultant impacts at that location.

# Appendix A: Site Risk Assessment

| Hazards | Potential Impact | Risk level prior to mitigation | Indicative Mitigation Measures | Risk level following mitigation | Management Documents / Training Required |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Fire, Explosion, Bushfire | Potential to start bushfire<br>Injury to Personnel<br>Damage to the Environment | L-3<br>C-4<br>19 (Very High) | Prepare and implement a WHSMP that incorporate measure to manage and mitigate bushfire risk<br>All site personnel are inducted on bushfire hazards and how they are to be managed<br>Flammable materials will be appropriately stored in accordance with AS1940 and the SDS.<br>Hazardous materials will be appropriately bunded with a volume of 110 per cent of the largest receptacle<br>All works involving a fire source will have a hot works permit in place with specific controls to prevent fire risk<br>No smoking (including e-cigarettes) will be allowed on site except at designated areas.<br>Dedicated butt disposals will be located in all designated smoking areas<br>Cutting, welding or grinding will not be undertaken on total fire ban days, unless the works takes place in an area at least 50 metres away from an ignition source and appropriate fire controls are in place.<br>Vehicles will not be driven or idled in areas of long grass on fire ban days or after prolonged periods of dry weather.<br>Mulch stockpiles will be monitored and turned over as required to avoid spontaneous combustion.<br>General purpose fire extinguishers and fire extinguishers suitable for oil/fuel fires will be available in all offices, plant and vehicles.<br>Personnel on site will be familiar with the use of fire-fighting equipment.<br>Fire-fighting equipment will be maintained regularly. | L-1<br>C-4<br>14 (High) | WHSMP<br>ERP<br>EWMS<br>Project Induction |

| Hazards | Potential Impact | Risk level prior to mitigation | Indicative Mitigation Measures | Risk level following mitigation | Management Documents / Training Required |
|---|---|---|---|---|---|
| Truck, plant or vehicle collision / rollover | Release of hydrocarbon (Fuel/Oil) | L-3<br>C-3<br>13 (High) | Staff induction,<br>Construction Traffic and Transportation Management Plan (CTTMP) has been produced for the Project and will include specific Traffic Control Plans (TCPs) for work stages and active work areas,<br>First Aid kits will be kept in each vehicle and plant as well as at site compounds,<br>Spill kits will be stored at site compounds and other active work areas.<br>Experienced operators of plant and machinery (VOC as required) Weather condition monitoring Spill kits available | L-3<br>C-1<br>3 (Low) | CEMP and Sub-Plans<br>Project Induction<br>Spill Kit Training |

| | | | | | |
|---|---|---|---|---|---|
| Escape, Spillage or Leakage of Hazardous Substance | Contamination of soil, water, air | L-3<br>C-3<br>13 (High) | Staff induction.<br>Spill kits will be kept at site compound areas and on site.<br>All plant will be inspected before delivery to site and regularly during operation for leaks.<br>All SDS for will be kept on site and will be readily accessible<br>Disposal of waste material appropriately at authorised facilities licenced to accept the waste material<br>Asbestos identification training for key staff<br>Construction Contaminated Land Management Sub-Plan (CCLMP)<br>Asbestos Management Sub-Plan (part of the CCLMP)<br>Construction Soil and Water Management Sub-Plan (CSWMP)<br>EWMS and checklist prepared for grouting of redundant pipes | L-3<br>C-2<br>8 (Moderate) | CEMP and Sub-Plans<br>Project Induction<br>Spill Kit Training<br>SDS Register |
| Damage to existing utilities | Release of large quantities of water in a short period of time (eg. water mains) | L-3<br>C-3<br>13 (High | Staff induction,<br>Utilities will be located and surveyed prior to adjacent work, | L-3<br>C-2<br>8 (Moderate) | Manage Work Permits<br>Project Induction<br>CEMP and Sub-Plans |

| Hazards | Potential Impact | Risk level prior to mitigation | Indicative Mitigation Measures | Risk level following mitigation | Management Documents / Training Required |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| | Damage to other overhead and underground services | | Where required by the asset owner, an asset owner representative will be onsite, Spill kits will be stored at site compounds and other active work areas, CPBGG JV Construction Noise and Vibration Management (CNVMP) has been developed for the Project.<br>Vibration monitoring as required, and reassess vibration causing activities when working within safe distance of sensitive areas<br>Permit to Excavate or Penetrate to be obtained | | Manage Work Permits<br>Project Induction<br>Spill Kit Training |
| Uncontrolled release of stormwater | Breach of EPL conditions, and pollution of environment | L-4<br>C-3<br>17 (Very High) | Staff induction,<br>Construction Soil and Water Management Sub-Plan (CSWMP),<br>EWMS will be created for works near waterways and environmentally sensitive areas,<br>Onsite sediment basins and other suitable and appropriate erosion and sediment controls will be implemented to manage stormwater prior to it leaving the site, as required,<br>Ancillary facilities to have appropriate erosion and sediment controls in place.<br>Implement the project CSWMP, Regularly review and update erosion and sediment control plans<br>Monitor weather conditions and prepare the site for predicted wet weather events as far as practicable | L-4<br>C-2<br>9 (Moderate) | SWMP<br>EWMS<br>Basin management procedure Project induction<br>Targeted ERSED training |

| | | | | | |
|---|---|---|---|---|---|
| Discovery of contaminated soils/ asbestos | Contamination of land and /or waterways from spills/ asbestos/ land contamination | L-4<br>C-3<br>13 (Very High | Targeted training for relevant staff,<br>Implementation of CCLMP, AMP, CSWMP and CEMP<br>Implementation of Unexpected Finds Process | L-4<br>C-2<br>9 (Moderate) | CCLMP<br>Unexpected Finds Procedure<br>EPA guidelines |

# Appendix B

## : Sensitive Area Plans

# Appendix C

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## : PIRMP Training Register

| Date | Trainer Name | Trainee Name | Content Covered |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

# Appendix D

| | | | |
|---|---|---|---|

# Appendix E

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## : PIRMP Review and Testing Register

| Date | Manner of Testing | Tested By | Testing Outcomes |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

# Appendix F

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| | | | |

# Appendix G

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