

Appendix B11 Construction Pollution Incident Response Management Plan

The Northern Road Upgrade Stage 5 and Stage 6 between Eaton Road and Glenmore Parkway

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Document Control

The Project Manager is responsible for ensuring that this document is reviewed and approved.

The CPB Environmental Site Representative is responsible for updating this document to reflect changes to environmental, legal and other requirements, as required.

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

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Glossary and abbreviations

Phrase	Definition	
CAQMP	Construction Air Quality Management Plan	
CCLMP	Construction Contaminated Land Management Plan	
СЕМР	Contractors Construction Environmental Management Plan	
CNVMP	Construction Noise and Vibration Management	
CPB or CPB Contractors	CPB Contractors Pty Ltd	
CSWMP	Construction Soil and Water Management Plan	
СТСР	Construction Traffic Control Plans	
СТМР	Construction Traffic Management Plan	
EM Environment Manager		
EPA	NSW Environment Protection Authority	
EP&A Act	Environmental Planning and Assessment Act 1979	
EPL	Environment Protection Licence	
ESR	Environmental Site Representative (CPB)	
ESRP	Emergency Spill Response Plan	
EWMS	Environmental Work Method Statements	
LGA	Local Government Area	
MTBB	Material to be Bound – The material prior to stabilisation with a binder	



Phrase	Definition	
OEH	NSW Office of Environment and Heritage	
PIRMP	Pollution Incident Response Management Plan (this Plan)	
POELA	Protection of the Environment Legislation Amendment Act, 2011	
POEO Regulations or POEO (Gen) Regs	Protection of the Environment Operations (General) Regulation, 2019	
POEO Act	Protection of the Environment Operations Act, 1997	
Project, the	The Northern Road Upgrade between Eaton Road and Glenmore Parkway, also known as TNR5 and TNR6	
REF	Review of Environmental Factors	
TfNSW	Transport for NSW	
TfNSW	Transport for NSW	
TNR	The Northern Road	
UZF	Upper Zone of Formation	
VOC	Verification of Competency	



1 Introduction

1.1 Context

This CPB Contractors Pty Ltd (CPB) Pollution Incident Response Management Plan (PIRMP) forms part of the CPB Construction Environmental Management Plan (CEMP) for The Northern Road Upgrade between Eaton Road and Glenmore Parkway, also known as TNR5 and TNR6 (the Project) and as included in the Environment Protection Licenses (EPL) numbers 21189 and 21248

This PIRMP has been developed to comply with the *Protection of the Environment Operations Act 1997 (NSW)* (the POEO Act) as amended and in accordance with Environmental guidelines: Preparation of pollution incident response management plans (EPA, 2012). In 2011 amendments introduced several new requirements to improve the way pollution incidents are reported, managed and communicated to the general community. The requirements are specified in Part 5.7 of the *Protection of the Environment Operations Act 1997 (NSW)* (the POEO Act). All environmental incidents will be managed and reported in accordance with the Transport for NSW Environmental Incident Classification and Reporting Procedure (Appendix A7 of the CEMP).

In the event of an environmental incident, the following procedures and plans shall be implemented:

- 1. Transport for NSW Environmental Incident Classification and Reporting Procedure refer to Appendix A7
- 2. CPB Contractors' Manage and Report SHE Incidents Procedure will also be implemented. Refer to Appendix A7
- 3. CPB Pollution Incident Response Management Plan Refer to Appendix B11

This Plan provides a guide for the operations, actions and notifications to be carried out in the event of a notifiable pollution incident, which is defined in Section 4.2.

The PIRMP includes a description and likelihood of hazards on site, including an inventory of potential pollutants, pre-emptive actions to be taken to minimise or prevent risk of pollution incidents and harm to site personnel, safety equipment available, a list of contact details for response or notification and community communication tools. The PIRMP also sets out detailed descriptions of the actions to be undertaken in the event of a pollution incident to reduce or control pollution, and training for staff in the use and implementation of the PIRMP.



1.2 Definitions

Table 1-1 Definitions used in this Plan

Phrase	Definition
Pollution Incident	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.
Notifiable Incident	Where there is a risk of 'material harm to the environment'.
Material Harm	Harm to the environment is material if:
	It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
	It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations) and
	Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.
	Note: It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.
Emergency Control Organisation (ECO)	A group drawn from workers on-site whom have authority to organise and supervise the safe evacuation in an emergency.
Emergency Response Plan	An Emergency Response Plan that applies to all site activities and possible emergencies.
Immediately	Ordinary dictionary meaning, without delay, however, measures to secure the safety of people and the site are of primary concern and should be dealt with as the highest priority.



1.3 Environmental incident classifications

Table 1-2 Environmental incident classifications

Category	Description	Examples	
Category 1	Potential breaches of legislation or failures of process that result in an actual off-site environmental harm, or residual on-site environmental harm;	Pollution Incidents	Discharge of waters from site not in accordance with any approval requirements (e.g. Discharge criteria in a Review of Environmental Factors (REF) safeguard or Environmental Protection Licence (EPL) condition).
	OR		Pollution, or potential pollution, of waters.
	Works undertaken outside approved areas, without required approval or without environmental assessment;		Unmanaged vehicle tracking of materials or emissions of dust, offensive odours or noise beyond the site boundary that are not managed in accordance with approval requirement and/or might impact on nearby land users.
	OR		Pollution incidents that threaten harm to the health or safety of people (e.g. Odours).
	Any Material harm pollution incident as defined by Part 5.7 of the <i>Protection of</i>		A spill or other incident that causes pollution to land.
		Conservation Breaches	Unauthorised harm or damage to native flora and fauna (terrestrial or aquatic/marine).



Category	Description	Examples	
	the Environment Operations Act 1997 (POEO Act).		Unauthorised dredging or reclamation works within a watercourse.
			A fire caused by Transport for NSW activities that travels beyond the boundary causing, or potentially causing, harm to the environment or community.
		Heritage Breaches	Unauthorised harm to Aboriginal objects and Aboriginal places.
			Unauthorised damage to any State or locally significant relic or Heritage item, or item listed on the Transport for NSWSection 170 Register.
		Planning and compliance breaches	Failure to comply with the requirements of: - the Environmental Planning and Assessment Act 1997 (EP&A Act), including exempt activities, Part 5 determinations and Part 5.1 approvals, - an Environmental Protection and Biodiversity Act 1999 (EPBC Act) approval, - an EPL, - a CEMP or environmental work method statement (EWMS),



Category	Description	Examples
Category 2	Failures of process or events that do not	- a permit from a regulator (e.g. under the <i>Fisheries Management Act 1994</i>). A procedural, administrative or technical breach of environmental requirements,
Calegory 2	result in off-site environmental harm, or residual on-site environmental harm. These incidents may result in temporary on-site environmental harm that can be rectified to pre-existing conditions.	 failure to prepare or submit required documents, reports or other correspondence, failure to comply with the requirements of: the Environmental Planning and Assessment Act 1997 (EP&A Act), including exempt activities, Part 5 determinations and Part 5.1 approvals, an Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) approval, an EPL, a CEMP, a permit from a regulator (eg. Under the Fisheries Management Act 1994).
		Spills and discharges that do not leave a site boundary and are cleaned without residual on-site environmental harm, and the area of temporary impact can be restored to pre-existing conditions. A fire that is contained on-site and does not cause or potentially cause impact to the environment or community.



Category	Description	Examples
Reportable Event	An event or unexpected find that occurs outside the scope of reasonable environmental controls and mitigation measures.	Sediment or site water travelling beyond a site boundary, and where it can be demonstrated that: - erosion and sediment controls were installed and maintained in accordance with an erosion sediment control plan, and - the cause of the incident was reasonably unforeseen or the weather (rain, wind, etc.) even exceeded the design capacity of controls. Note: these events are considered to have occurred (and the response should commence in accordance with Section 5 of this Pollution Incident Response Management Plan) when sediment or site water first travels beyond the site boundary (e.g. when an appropriately sized and maintained sediment basin commences overtopping). An unexpected archaeological find that is being managed in accordance with the "Transport for NSW Standard Management Procedure – Unexpected Archaeological Finds". An unexpected threatened species find that is being managed in accordance with the "Transport for NSW Biodiversity Guidelines – unexpected threatened species finds procedure". An unexpected find of contaminated soils, asbestos or other potentially hazardous substances during construction or maintenance works.



Category	Description	Examples	
		Note: Once a contaminant is identified or found for the first time (either during project planning or construction phases) it is then reasonably expected to be found, so additional finds need not be reported in this category.	
Regulatory Action	Formal regulatory action from an environmental regulator (that has not already been reported in conjunction with another incident).	Formal regulatory action from an environmental regulator includes, but is not limited to: - penalty infringement notices (PINs), - clean up notices, - prevention notices, - official cautions / warnings, - EPA show cause notifications.	



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2 Purpose and Objectives

2.1 Purpose

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

The Plan is applicable to all Project activities during the Construction stage and describes how CPB proposes to manage and control potential hazards and risks associated with the Project.

This PIRMP documents the risk assessment process implemented on the Project and the activities that create pollution risks associated with the Project. It also details the pre-emptive actions that have been implemented on the Project. These include:

- specific measures implemented to minimise the risk of a pollution incident occurring due to spillage, utility rupture, storage of hazardous materials and / or fire,
- inventory of potential pollutants on site,
- minimum safety equipment requirements,
- communication with the community,
- minimising harm to persons,
- training of personnel, and
- 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 existing safety, environmental and emergency systems and plans concurrently implemented at the Project.

2.2 Objectives

The objectives of this Plan are to:

- outline how pollution incidents will be communicated,
- minimise and control the risk of a pollution incident by identifying risks and developing actions to minimise and manage risks,
- ensure proper implementation through training personnel, identifying responsibilities, and regularly testing the effectiveness of the PIRMP.

3 Site Details

3.1 Overview

Key features of the Project are described in Table 3-1, and illustrated in Figure 3-1 below.



Table 3-1: Description of Works

Activity / phase	Description of works to be undertaken
Environmental Management System	 preparation of CEMP, apply for any approval, licence, or permit required to lawfully undertake the works, seek approval for CEMP and Sub Plans prior to construction.
Early works environmental work method statement (EWMS)	 preparation and approval of early works EWMS and ancillary facility management plan(s), installation of erosion and sediment controls, installation/improvements of water storages along the alignment, construction of access roads through the Project, construction of access roads via and for adjacent property owners, establishment of site compounds, establishment of stockpile locations, establishment of a workshop, temporary traffic works, utility search and protection, dewater dams and disposal of water.
Service relocation	service search and protection,service relocation.



Activity / phase	Description of works to be undertaken
Site preparation	 installation of fencing, clearing and grubbing, environmental and other surveys (noise, vibration, fauna, flora, etc), geotechnical investigations, installation of nest boxes, if required, mulching, stripping and stockpiling of topsoil (soil improvement undertaken prior to topsoil stripping e.g. with addition of lime or gypsum), establishment of access tracks, establishment of temporary and permanent crossovers, dewater dams and disposal of water.
Drainage (Surface and subsurface)	culverts,catch drains,drainage blankets.



Activity / phase	Description of works to be undertaken
Reclaim/process existing construction materials	reclaim existing concrete/asphalt/granular pavements and stockpile (or recycle or remove from site) for reprocessing and reuse as appropriate. This may include: Select Material, Material to be Bound (MTBB), verge material, general fill, Upper Zone of Formation (UZF) material or temporary access tracks,
	stockpile and reprocess crushed miscellaneous concrete,
	stockpile and reuse all suitable topsoil material,
	 proactively manage the recovery, possible encapsulation and (if necessary) disposal of unsuitable/contaminated materials,
	stockpile and reuse durable rock from excavations. If rock is not durable, reprocess and reuse as select fill, verge material, general fill or UZF,
	 subject to suitability, reuse excavated earth materials from cuttings, cut to fill transitions, shallow embankments and foundation treatments for embankment construction.
Earthworks	clearing and grubbing, topsoil management, stockpile of topsoil,
	 excavation of cuttings, win material for fill areas, separate unsuitable material,
	 offsite disposal of spoil material as required,
	 haulage of material from cut to fill areas including internal movements and external truck and dog movements to site,
	placement of materials,
	batter treatment.
Interchanges	U-Turn facilities,construction of Round-a-bouts,
	install traffic signals and CCTV cameras.



Activity / phase	Description of works to be undertaken
Pavement	 travel base/sub-base layers and asphalt paving, temporary staging – temporary pavements required to move traffic to allow permanent paving to be constructed.
Structures	 widening The Northern Road, U-Turn facilities, extension of existing side roads, relocation and installation of new or upgraded public utilities.
Other Works	 property adjustments and property access, property demolition, local roads, tie-ins, service relocation / improvements.
Finishing works	 safety barriers, safety screens, lighting, line marking, signposting, landscaping, site clean-up.



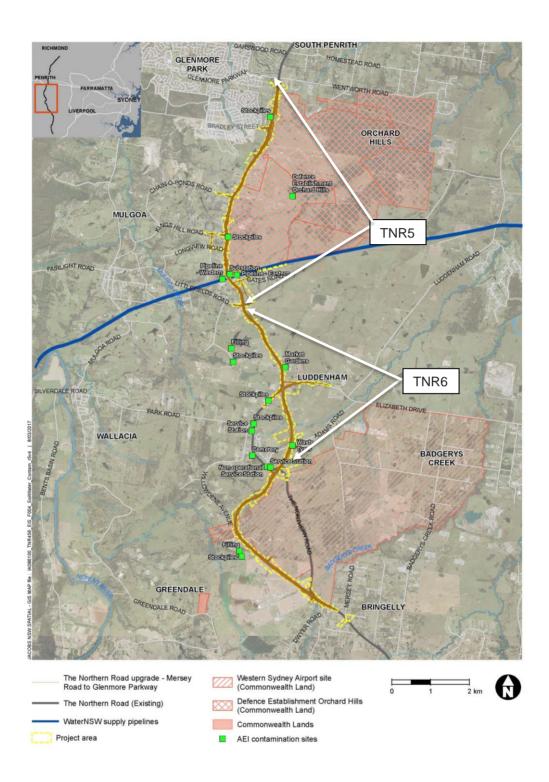


Figure 3-1 The Northern Road Stages 5 and 6

3.2 Major hazards

Potential hazards to human health and the environment that may occur from incidents on the site may include, but are not limited to:



- Explosion / Fire,
- Bushfire,
- Escape, spillage or leakage of hazardous substances,
- Uncontrolled stormwater discharge,
- Truck, plant or vehicle collision / rollover and spill onsite,
- Damage to existing utilities:
 - Warragamba to Prospect Dam pipeline,
 - Electrical Substation,
 - Gas mains,
- Asbestos contamination.

A risk assessment for the major pollution hazards related to the Project was completed and is attached (Annexure A). Possible circumstances or events that could increase the likelihood of major hazards occurring are listed in Table 3-2.

Table 3-2 Major hazards and circumstances that could increase the likelihood of their occurrence

Major hazards	Circumstances or events that could increase the likelihood
Explosion or Fire	storage of explosive/flammable materials,refuelling of plant or vehicles,
Bushfire	 surrounding and onsite vegetation increases bushfire risk via increased fuel load, working in high fire danger periods.
Truck, plant or vehicle collision / rollover causing escape of hydrocarbons (fuel/oil)	 unsafe driving (e.g. speeding), inappropriate traffic management, driver(s) affected by alcohol or other drugs, uneven ground surfaces, adverse weather conditions (hail, heavy rain, high wind, etc)
Escape, spillage or leakage of hazardous substances from storage areas, plant or vehicle	 poor operation of plant or vehicle, infrequent plant or vehicle inspection and / or maintenance regime,



Major hazards	Circumstances or events that could increase the likelihood	
	 failure to capture drilling fluid from geotechnical investigations, poor house-keeping of fuel/chemical storage areas. 	
Damage to existing utilities	 impacts from vibration on existing Warragamba to Prospect Dam Pipeline, penetrating the ground near known utility locations, not referring to utilities plan before digging, overhead electrical service impacting adjacent residents and sub-station. 	
Uncontrolled stormwater discharges	periods of high rainfall,inadequate erosion and sediment controls,poor planning.	
Asbestos contamination	In adherence to the Asbestos Management Plan (located within CEMP Appendix B10 – Construction Contaminated Land Management Plan (CCLMP)).	

3.3 Pre-emptive actions to minimise or prevent any risk of harm

Table 3-3 contains a list of the key pre-emptive actions to be applied onsite to minimise the risk of potential hazards and incidents.

In addition to the controls listed in Table 3-3, all CPB personnel will wear appropriate Personal Protective Equipment (PPE) and undergo appropriate safety and environmental training.

Safety equipment and other devices used to contain or control a pollution incident are listed in Table 3-6.

Table 3-3: Pre-emptive actions applied onsite to minimise the risk of potential hazards



Hazard	Pre-emptive Action
Explosion or Fire	 staff induction, general purpose fire extinguishers and fire extinguishers suitable for oil/fuel fires will be available in all offices, plant and vehicles, fire-fighting equipment will be maintained regularly, 'dial Before You Dig' to obtain location of utilities to ensure no ground penetration works is done to disturb them. any onsite refuelling would occur in a designated area with impervious surfaces or utilise appropriate measures during refuelling to capture potential spills such as portable drip trays etc.
Escape, Spillage or Leakage of Hazardous Substances	 staff induction, no storage of hazardous substances, volumes of hazardous substances onsite shall be minimised as far as practicable, EWMS(s) will be prepared and implemented for site establishment, geotechnical and barrier placement works as well as works near waterways and other sensitive areas, drilling fluid / slurry from geotechnical investigation activities will be captured and taken offsite for disposal at an authorised
	 facility, spill kits will be kept at site compound areas and onsite during high risk activities, no stockpiles of materials or storage of fuels and chemicals would be located within the 100-year ARI flood zone, vehicles and machinery should be properly maintained to minimise the risk of fuel/oil leaks. Routine inspections of all construction vehicles and equipment should be undertaken for evidence of fuel/oil leaks, any onsite refuelling would occur in a designated area with impervious surfaces or utilise appropriate measures during



Hazard	Pre-emptive Action	
	refuelling activities to capture potential spills such as portable drip trays etc.	
Uncontrolled stormwater discharge	staff induction,Construction Soil and Water Management Sub-Plan (CSWMP),	
	 EWMS will be created for works near waterways and environmentally sensitive areas, 	
	 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, 	
	 ancillary facilities to have appropriate erosion and sediment controls in place. 	
Bushfire	staff induction,	
	limit access to vegetated areas to avoid access to existing fire fuel sources (e.g. protection fencing and exclusion zones),	
	 emergency services will be contacted as necessary. 	



Hazard	Pre-emptive Action	
Truck / plant /	staff induction,	
vehicle collision	 a Construction Traffic Management Plan (CTMP) will be produced for the Project and will include specific Construction Traffic Control Plans (TCP) for work stages and active work areas, 	
	 First Aid kits will be kept in each vehicle and plant as well as at site compounds, 	
	spill kits will be stored at site compounds and other active work areas.	
Damage to utilities	staff induction,	
	utilities will be located and surveyed prior to adjacent work,	
	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,	
	 CPBs Construction Noise and Vibration Management (CNVMP) has been developed for the Project. 	
Asbestos	staff induction,	
contamination	targeted training for relevant staff,	
	 Asbestos Management Plan (located within Appendix B10 – CCLMP). 	

3.4 Pollution inventory

The primary hazardous materials and chemicals (including fuels) that may be used and stored onsite are shown in Table 3-4. 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 hazardous materials are to be included on the hazardous material register maintained by the Safety Manager, and the required SDS obtained via 'ChemAlert.' Checks of hazardous material 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 3-4: Hazardous materials stored onsite

Pollutant	Potential maximum quantity to be stored
AD blue	20 litres
Aluminium Ch	100 litres
Aluminium Chlorohydrate Liquid	100 litres
Automotive Diesel Fuel	100 litres
Automotive Diesel Fuel	100 litres
Bitac Primer	300 litres
Bitumen Class 170	100 litres
Bostik Plumbtec PVC Priming Fluid	40 litres
Bostik PVC Pipe Cement N Blue	40 litres
Bostik PVC Pipe Cement N Clear	40 litres
Bostik PVC Pipe Cement P Clear	40 litres
Bostik PVC Pipe Cement P Green	40 litres
Bostik PVC Priming Fluid - Red & Clear	40 litres
BP Ultimate Diesel fuel	2000 litres
BP Kerosene	60 litres
Castrol Vecton Long Drain 10W-40 E6/E9	100 litres
Christy'S Red Hot Blue Glue Low Voc Pvc	20 litres
Concure A99	80 litres
Cummins PGXL Coolant	10 litres
Dy- Mark Spray Blue	28 cans
Dy - Mark Spray Ink	100 spray cans
Dy- Mark Spray Orange	40 cans
Dy- Mark Spray Pink	48 cans
Dy- Mark Spray Yellow	10 cans
Ennis 'Cold Applied Plastic' Range	40 litres
Ennis Preform Thermoplastic Roadmarking Material	40 litres



Pollutant	Potential maximum quantity to be stored	
Epirez Highway Patch	40 litres	
Expanding filler foam	20 litres	
Fosroc Nitomortar Ap Base	40 litres	
Fosroc Nitomortar Ap Hardener	40 litres	
Galmax 90 Cold Galvanising Paint (Aerosol)	40 litres	
Garrick Soluble Cutting Oil	40 litres	
Garden 2T 2 Stroke oil	10 litres	
Hilti R.E Hit 500 Epoxy	30 litres	
Henkel Loctite 243/243-Sg Threadlocker	20 litres	
Hydrochloric Acid 40 litres		
Intercrete 4841 Part A & B 10 litres		
Kerosene	40 litres	
Liquid Petroleum Gas (LPG) bottles 6 bottles		
BP unleaded petrol	60 litres	
Megapoxy H - Part A	40 litres	
Megapoxy H - Part B	40 litres	
Multi-Purpose Grease	10 litres	
Mineral Turpentine	40 litres	
Protex (R)	25 litres	
Protex Bond Seal	1 litre	
Protex PVC Cement	25 litres	
PVC Cement N type	5 litres	
Redicote 422/60	40 litres	
Render Refresh Low Sheen	60 litres	
Rendero C	100 litres	
Road marking paint	80 litres	
Roof silicone	300 grams	



Pollutant	Potential maximum quantity to be stored	
Sika Aqua Primer	20 litres	
Solar guard low sheen	5 litres	
Tampur 130	40 litres	
Thinning cleaning solvent	20 litres	
Truck wash	40 litres	
Turpentine	5 litres	
Two stroke oil	10litres	
Vinidex Primer Red	40 litres	
Vital Bon-Matt HR	7000 litres	
GP cement	1000 kg	
Weather Shield	10 litres	
Weston oil	500 grams	
Daratard	2500 Litres	
Darex AEA	2500 Litres	
ConCure	40 Litres	
Rugersol	40 litres	
White road making paint	80 litres	

The associated work tasks for each potential pollutant are outlined in Table 3-5 below.

Table 3-5: Pollutants and associated work tasks

Pollutant	Location	Controls
Hazardous substances	Hazardous Substances Register includes location and indication of quantities stored on the site	 register maintained by the CPB Safety Manager and will be made available to Emergency services, as required, Safety Data Sheets (SDS) are available in first aid rooms and other suitable locations, hazardous and dangerous substances (including all fuels, oils, lubricants and chemicals) brought onto the worksite will only be handled or stored within



Pollutant	Location	Controls
		designated bunded areas or other suitable locations to ensure the retention of any potential spills or leaks, storage and bunding areas for hazardous liquids will conform with AS1940 – Storage and Handling of Flammable Liquids and AS/NZS 4452, Storage and Handling of Toxic Substances - Storage of hazardous substances will be in accordance with the SDS and where practicable will be undercover within bunded areas.
Waste handling and storage	Waste required to be handled and stored onsite prior to onsite reuse or offsite reuse/disposal	 spoil, topsoil and mulch will be stockpiled onsite in allocated areas and mitigation measures for dust control and surface water management will be implemented as per the Construction Air Quality Management Plan (CAQMP) and the Construction Soil & Water Management Plan (CSWMP), liquid wastes will be stored in appropriate containers in bunded areas until transported offsite. 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, hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the Environmentally Hazardous Chemicals Act 1985 and NSW EPA waste disposal guidelines, all other wastes will be stored in appropriate covered receptacles (e.g. bins or skips) in appropriate locations onsite and contractors will be commissioned to regularly remove / empty the bins to approved disposal or recycling facilities.
Erosion and Sediment	Condition O4.11 of EPLs 21189 & 21248 for the Project allows for the	Erosion and sediment controls will be managed in accordance with the <i>Construction Soil and Water Management Plan</i> (CSWMP) and CoA E45 including the



Pollutant	Location	Controls
	discharge of water from sediment basins provided water quality monitoring conditions are met.	following principles and pollution control mitigation measures: maximise the diversion of storm water runoff around the site and treat "dirty" runoff via suitable erosion and sediment control structures, maximise the reuse of captured stormwater, meet Project water quality standards prior to release: pH between 6.5-8.5 TSS below 50mg/L and no visible grease or oil obtain an approved water discharge permit prior to release, floats and other devices including hard (fail safe) controls used at the pump inlet and scour protection at outlet, if required.
Air Quality	Earthworks, temporary haul roads, batch plants	All air quality shall be managed in accordance with the Construction Air Quality Management Plan (CAQMP). Precautions to minimise the generation of dust will include: Spraying of earthworks, roads and other surfaces as necessary with water or other suitable liquids, Providing dust suppression equipment to any onsite materials batching plant, Sealing of temporary haul roads, Applying dust block or similar material to exposed surfaces to supress possible generation of dust during periods of high winds, Compacting exposed surfaces in the event of high winds, and Modification of operations during high or unfavourable wind conditions.



3.5 Safety equipment and storage location

A summary of the safety equipment to be kept onsite and the location of storage on the premises is provided in Table 3-6.

Table 3-6: Safety equipment and storage location onsite

Safety Equipment	Storage Location of Safety Equipment	
General purpose fire extinguishers and fire	Site compounds and other compounds as they are	
extinguishers suitable for control of	developed.	
electrical/oil/fuel/chemical fires	At active work locations and in designated vehicles.	
Plant and clean-up equipment	Throughout the site.	
Spill kits	Site compounds and designated vehicles.	
	Plant refuelling areas.	
	Onsite when performing high risk activities.	
Bunding, twin-skinned storage containers, spill	Site compounds, designated vehicles and	
pallets and related chemical storage equipment	hardstand areas.	
Erosion and sediment control supplies and	Site compounds.	
equipment such as geotextile, gravel socks, silt		
fence, etc.		
First aid kits	Site compounds.	
	In site vehicles and plant.	
Personal Protective Equipment (PPE)	All personnel will be responsible for storage	
	of their PPE.	
	Additional PPE will be stored at the site	
	compounds for short term use (visitors	
	etc.).	

3.6 Minimising harm to persons on the premises

This PIRMP is an Emergency Action Plan for the Project to control harm to persons and the environment on and off the premises. Emergency response personnel names and phone numbers are provided in Section 4 of this Plan (Table 4-2 and Figure 4-1).

4 Emergency Procedures

Section 1.2 of this PIRMP provides relevant processes for managing the following:

- Incident Management (Section 4.1),
- Material Harm (Section 4.2),
- Notifiable Incident (Section 4.3),
- Critical Incidents (Section 4.4),

4.1 Incident management

A 'pollution incident' that triggers implementation of this Plan is defined in the POEO Act, as:

"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."

Potential pollution incidents (i.e. hazards) for the Project are described in Section 3.2.

In accordance with NSW-CoA A40, Transport for NSW will notify the Secretary of any incident (other than those relating to the POEO Act) as soon as practicable and within 24 hours of the incident. The notification will include the time and date of the incident, details of the incident and must identify any non-compliance with the Infrastructure Approval.

All environmental incidents will be managed and reported in accordance with the Transport for NSW Environmental Incident Classification and Reporting Procedure (the Procedure), also found in Appendix A7 of the CEMP.

4.2 Material harm

A pollution incident is required to be notified to the EPA if there is a risk of 'material harm to the environment', which is defined in section 147 of the POEO Act as:

"(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and



(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment."

Note: It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

As per Section 4.1, in accordance with NSW-CoA A40, Transport for NSW will notify the Secretary of any incident (other than those relating to the POEO Act) as soon as practicable and within 24 hours of the incident. The notification will include the time and date of the incident, details of the incident and must identify any non-compliance with the Infrastructure Approval.

4.3 Duty to notify management personnel

For a notifiable pollution incident, all CPB employees, TfNSW and contractor staff will immediately alert Project Site Management who must immediately advise the TfNSW Representative.

Should a pollution incident occur, all workers and/or visitors (including TfNSW, contractor and CPB staff) shall immediately report the incident to the CPB Site Management Team.

In the event of an environmental incident that would be, or has the potential to be, classified as Category 1 under the Transport for NSW Environmental Classification and Reporting Procedure (the Procedure), the Transport for NSW Representative and Transport for NSW Environmental Manager (or delegate) will be immediately notified verbally by the CPB Site Management Team. Incident reports will be provided to Transport for NSW Project Manager and the ER in accordance with the Procedure, including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident

CPB Contractors will notify the EPA of any pollution incident that occurs during the Construction of the project via the EPA Environment Line (131 555) in accordance with Part 5.7 of the Protection of the Environment Operations Act 1997 (NSW) (POEO Act).

Where an incident involves a potential impact to an Aboriginal site, relevant Registered Aboriginal Parties will be notified, and their input sought in closing the incident.

In accordance with NSW-CoA A42, CPB notify the Secretary as soon as possible and in any even within 24 hours of any incident, and; meet the requirements of the Secretary or relevant government authority (as determined by the Secretary) to address the cause or impact of



any incident reported in accordance with NSW-CoA A40, within such period as the Secretary may require.

All other environmental incidents, reportable events and regulatory action will be reported to Transport for NSW and the ER as outlined in Section 4.1.

An environmental incident response workflow from the Transport for NSW Environmental Classification and Reporting Procedure (the Procedure) is summarised in Table 4-1 and Figure 4-1.

CPB will provide all records of incidents and regulatory action to the Transport for NSW Project team.

4.4 Critical Incidents

Some Category 1 incidents require escalation so relevant members of the Transport for NSW Executive are aware of the incident and ready to respond as necessary. Category 1 incidents will be deemed 'Critical Incidents' for escalation to the Executive when they have the potential for:

- regulatory action (eg. EPA Penalty Infringement Notice), and/or
- reputational damage (eg. Media coverage), and/or
- significant environmental harm.

Guiding factors that will be considered when determining whether there has been 'significant' environmental harm include:

- when there has been actual or potential harm to the health or safety of people or to the environment that is not trivial
- actions required to prevent, mitigate or make good the actual or potential environmental harm are likely to exceed \$10,000

When a potential 'Critical Incident' is reported, the Transport for NSW Director Environmental Operations (DEO) will immediately brief the Transport for NSW Director Environment (DE) who will make a determination on whether it will be considered a 'Critical Incident'.

The DE will the brief the Transport for NSW Chief Executive and relevant Executive Director, as well as any other members of the Executive as appropriate. When the DE cannot be contacted, the DEO will make the determination and make the relevant Executive briefings.





Table 4-1 Environmental incident response - activities by contractors (Source: TfNSW Environmental Incident Classification and Reporting Procedure)

	Action	Responsibility for completing action	Timeframe	
Step			Category 1 incidents	Category 2 incidents / Reportable Events
1	Stop work in relevant area (if necessary) and take actions to prevent adverse impact to human health or the environment Note: human health and safety is the primary concern, and no action should be taken if it is not safe to do so	Person who identifies incident	Immediate	Immediate
2	Advise the CPB Site Management Team	Person who identifies incident	Immediate	Immediate
3	Advise the Transport for NSW project management team and the relevant Transport for NSW Environment Manager	CPB Site Management Team	Immediate	Day of the incident
4	Consider if the incident is a pollution that constitutes Material Harm in accordance with Part 5.7 of the POEO Act. For Material Harm pollution incidents, notify relevant agencies Implementation of this PIRMP	CPB Site Management Team	Immediate	Immediate





			Time	irame
Step	Action	Responsibility for completing action	Category 1 incidents	Category 2 incidents / Reportable Events
5	Advise DEO by phone. The DEO may request photographs and a brief summary of known information via email. The following Transport for NSW managers should also be notified by phone.	Transport for NSW Environment Manager	Immediately following advice of the incident	N/A
6	Where relevant, notify incident to appropriate regulatory agency Note: this does not refer to the requirement to notify Material harm pollutions incidents (see Step 4)	CPB Site Management Team	As required by legislation	As required by legislation
7	Complete the incident report form, including sign-off from Transport for NSW Project Manager, and submit to Transport for NSW Environment Manager and the ER.	CPB Site Management	Within 3 business days of the incident	Within 3 business days of the incident
8	Sign and submit incident report form to envops@transport.nsw.gov.au	Transport for NSW Environment Manager	One the day of receipt of the form	On the day of receipt of the form



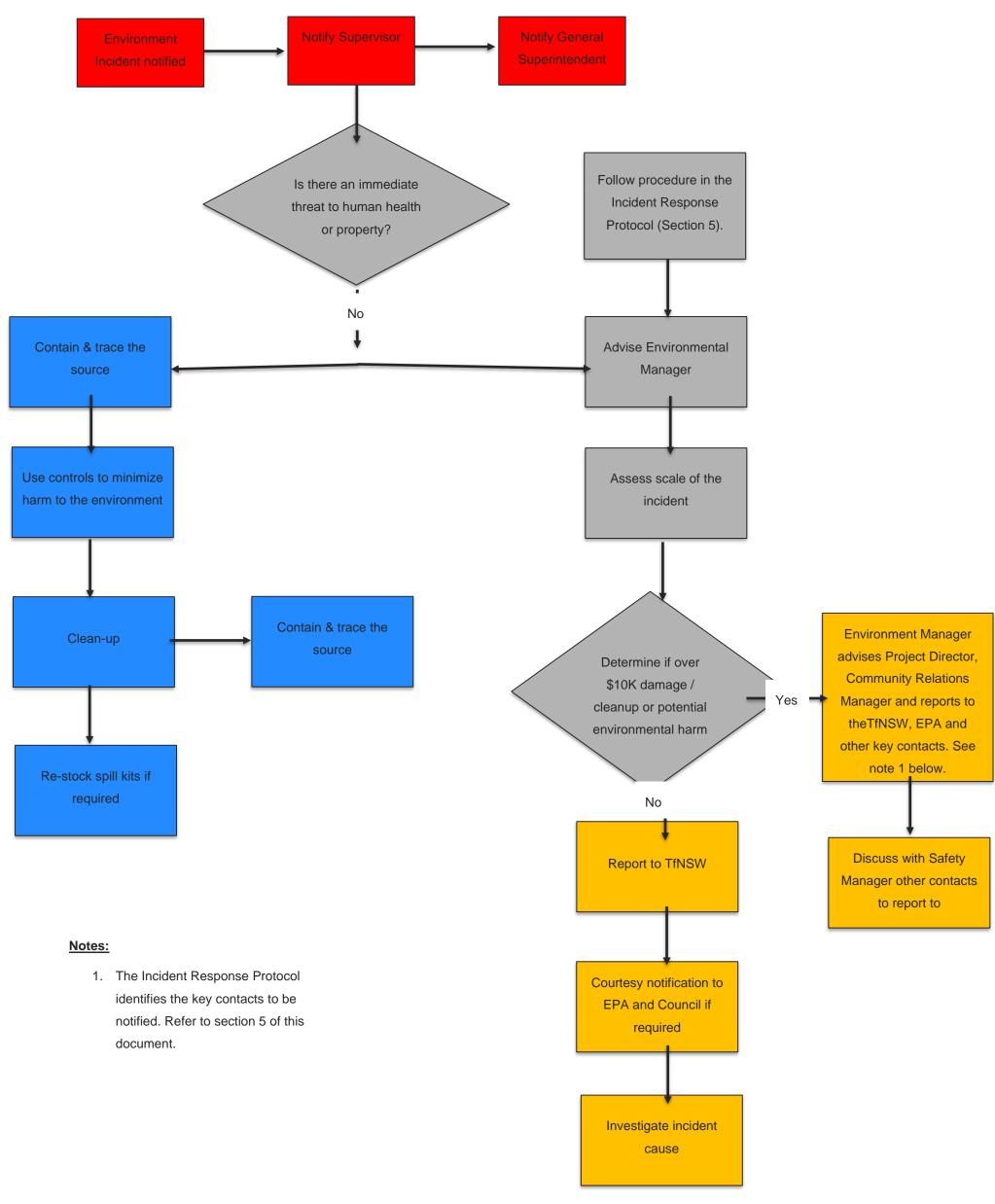


			Time	irame
Step	Action	Responsibility for completing action	Category 1 incidents	Category 2 incidents / Reportable Events
9	For Material Harm pollution incidents, provide a written report to each relevant authority	CPB Site Management	Within 7 days of the incident	N/A
10	Undertake incident investigation (level of investigation to be appropriate to the severity of the incident) to determine root cause and any necessary corrective actions. Summarise findings in 'Incident Lessons Learnt' template and submit to Environment Manager for review.	CPB Site Management	Within 1 week of receipt	N/A
11	Submit final Incident Lessons Learnt to envops@transport.nsw.gov.au	Transport for NSW Environment Manager	Within 1 week of receipt	N/A
12	Consider the need for any required corrective actions to be addressed through a management system (eg. Corrective action request)	Transport for NSW Environment Manager	As appropriate	As appropriate





Figure 4-1 Pollution Incident Response Flowchart





4.5 Contacts

The contact details for key CPB individuals who are responsible for activating this Plan, including notifying authorities and managing the response to a pollution incident are provided in Table 4-2 and Table 4-3. The sequential order of authorities to contact, and their numbers, are provided in Table 5-1 and Table 5-2.

Table 4-2 Key Project contact details

Organisation	Name	Position (TNR 5 and 6)	Phone number
CPB Contractors Pty Ltd		NSW/ACT Environment Manager	
CPB Contractors Pty Ltd		Project Manager	
CPB Contractors Pty Ltd		Construction Manager	
CPB Contractors Pty Ltd		Environment Site Representative	
CPB Contractors Pty Ltd		Superintendent	
CPB Contractors Pty Ltd		Safety Manager	
CPB Contractors Pty Ltd		Community Relations Manager	
CPB Contractors Pty Ltd		Traffic Manager	
Transport for NSW		Transport for NSW Senior Project Manager	
Transport for NSW		Transport for NSW Resident Engineer / TfNSW Representative	
Transport for NSW		Transport for NSW Senior Environment Officer	



Organisation	Name	Position (TNR 5 and 6)	Phone number
Transport for NSW		Transport for NSW Environment Officer	
Transport for NSW		Transport for NSW Community and Stakeholder Engagement Advisor	
Transport for NSW		Independent Environmental Representative (ER)	
TNR5 & 6 Emergency		Project Manager	
Controllers		Superintendent	
24-hour emergency		Project Manager	
contact		Environment Site Representative	

Table 4-3 Key External Contact Details

Organisation	Name	Phone number	Notes
Transport for NSW	-	13 22 13	-
NSW Police	Penrith Police Station	4721 9444	-
NSW Fire and Rescue	-	000	for pollution incidents that present an immediate threat to human health or property



Organisation	Name	Phone number	Notes
		1300 729 579	for pollution incidents that do not present an immediate threat to human health or property
Rural Fire Services	-	000	-
Bushfire Information Line	-	1800 679 737	-
NSW Ambulance Service	-	000	-
Nepean Hospital	-	4734 2000	-
State Emergency Service (SES)	-	132 500	-
Poisons Information	-	131 126	-
WIRES	-	1300 094 737	-
EPA Pollution Line	-	131 555	Notify in the event of 'material harm'
Department of Planning and Environment	-	1300 305 695	Notify in the event of 'Pollution Incident' (See section 4.1)
NSW DPI (Fisheries)	-	1300 550 474	-



Organisation	Name	Phone number	Notes
Safe Work NSW / Work cover	-	131050	Notify in the event of 'material harm'
Public Health Unit	Nepean Blue Mountains Local Health District	02 4734 2000	Notify in the event of 'material harm'
Penrith City Council		02 4732 7777	Notify in the event of 'material harm'
Liverpool City Council		02 8711 7000	Notify in the event of 'material harm'
Department of Defence	Department of Defence Establishment Orchard Hills (DEOH)	02 4728 0222	Notify in the event of 'material harm'



5 Incident response protocol

5.1 Response protocol

As discussed in Section 4.3, it is the responsibility of all project personnel to notify the CPB Site Management Team of an environmental incident. In the event of an incident, the response protocol outlined in Figure 4-1 must be implemented in conjunction with Table 3-1. This is in accordance with the TfNSW Environmental Incident Classification and Reporting Procedure (Appendix A7 of the CEMP).

As soon as a worker becomes aware of a pollution incident, they must immediately notify the CPB Site Management Team. If there is an immediate threat to human health or property, the Site Manager must immediately contact emergency services and any persons who may be in danger. In consultation with the TfNSW Representative, the nominated TfNSW Environmental Officer would determine if the incident is likely to cause material harm to the environment. If material harm is likely, external contacts must be notified immediately.

If no assistance can be obtained within a reasonable time, the Site Manager are required to notify the relevant authorities in the order of notification outlined in Table 5-1 and Table 5-2 (below).

In circumstances where there is doubt about the need to notify or the relevance of a particular agency, CPB and Transport for NSW should always proceed with notification.

When in doubt, communicate!

Table 5-1 Authorities to notify for Material Harm pollution incidents that present an immediate threat to human health or property

Order	Authority	Contact Number
1	Fire and Rescue NSW	000
2	NSW EPA environmental line	131 555
3	Department of Planning and Environment	1300 305 695
4	Ministry of Health	4734 2022 (Penrith)
	(via the local Public Health Unit)	4734 2000 (After Hours)



Order	Authority	Contact Number
5	SafeWork NSW	13 10 50
6	Local Council (Penrith)	4732 7777

Table 5-2 Authorities to notify for Material Harm pollution incidents that do not present an immediate threat to human health or property

Order	Authority	Contact Number
1	NSW EPA environmental line	131 555
2	Local Council (Penrith)	4732 7777
3	Ministry of Health	4734 2022 (Penrith)
	(via the local Public Health Unit)	4734 2000 (After Hours)
4	SafeWork NSW	13 10 50
5	Fire and Rescue NSW	1300 729 579

All of the above authorities (whether considered relevant or not) must be contacted for each material harm pollution incident to satisfy notification obligations.

5.2 The relevant information to provide

Section 150 of the POEO Act outlines the information that needs to be notified to the relevant authorities. It is important to avoid speculation on origin, causes or outcomes of a pollution incident in discussions with the authorities. While it is important not to speculate on the causes of an incident, s150 (1) (c) of the POEO Act requires notification of the circumstances in which the incident occurred (including the cause of the incident, if known) and there is an ongoing duty to ensure that relevant information be notified after it becomes known.



Section 150 POEO Act - Relevant information to be provided

- The relevant information about a pollution incident required under section 148 consists of the following:
 - a. the time, date, nature, duration and location of the incident,
 - b. the location of the place where pollution is occurring or is likely to occur,
 - c. the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known,
 - d. the circumstances in which the incident occurred (including the cause of the incident, if known),
 - e. the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known,
 - f. other information prescribed by the regulations.
- 2. The information required by this section is the information known to the person notifying the incident when the notification is required to be given..
- 3. If the information required to be included in a notice of a pollution incident by subsection (1) (c), (d) or (e) is not known to that person when the initial notification is made but becomes known afterwards, that information must be notified in accordance with section 148 immediately after it becomes known.

Note: if a pollution incident occurs, the above information is to be initially communicated verbally to each relevant authority and is to be followed by written notification within 7 days of the date on which the incident occurred (Clause 101 of the POEO (General) Regulations 2009).

5.3 Post incident-notification procedures

The following general clean up procedure is to be followed:

 Assessment - assess best clean up procedures for each incident based on the pollutant and site issues.



- Remedial Action remove contaminated soil, wastewater and used spill equipment to an appropriate place within the licensed premises for licensed waste disposal and/or remediation.
- Ongoing Actions following an incident the following must be undertaken:
 - undertake further monitoring/ testing if required.
 - complete Transport for NSWs Incident Report form (within three days of incident).
 - organise restocking of spill equipment.
 - complete reports to Authorities, as necessary.
 - implement corrective actions to avoid reoccurrence.

5.4 Incident reporting to the Environment Protection Authority (EPA)

The EPA must be notified immediately of any pollution incidents.

Within 7 days from the date on which the incident occurred, a detailed report must be submitted to the EPA including the following information:

- describe the date, time, and nature of the incident.
- identify the cause (or likely cause) of the incident.
- describe what action has been taken to-date.
- describe the proposed measures to address the incident.

If any of the information was not known at the time of initial reporting of the pollution incident by CPB to any of the Authorities outlined in Section 5.1, that information should be notified immediately after it becomes known.

All communications with any of the Authorities following the incident are to be made through the Transport for NSW management staff. Following the initial notification of the incident, TfNSW project personnel (such as the TfNSW Project Manager, or TfNSW Environmental Manager) will ensure that regular contact is made with all Authorities, and persons who have been notified of the incident, in relation to ongoing actions taken to combat the pollution caused by the incident.

These Transport for NSW management personnel will:

- liaise with the EPA regarding appropriate actions to be taken to control, manage and mitigate the pollution,
- work co-operatively with the EPA and any other relevant authorities to clean-up any pollution,



- notify the community of the results of ongoing monitoring of the pollution,
- consult any owners or occupiers in the vicinity of the site regarding any offsite actions to be taken which may impact on their properties.

A summary of requirements can be found in Section 5.7.

5.5 Notification of pollution incident to community / local landholders

The site is located within the Penrith City Council Local Government Area (LGA). Notification of notifiable pollution incidents would be focused on the residents located adjacent to the site.

CPB will contact people affected by a pollution incident either by telephone, letterbox drop or 'door-knocking'. The method and content of any communication will depend on the pollution incident and the actions required to reduce human health and environmental impacts. For example, advice may be given to the community to avoid the use of water in creeks affected by the discharge of a pollutant.

5.6 Transport for NSW Environmental Incident Report form

The Transport for NSW Environmental Incident Report form is available from the Transport for NSW website and must be completed for:

- Category 1 incidents,
- Category 2 incidents and
- Reportable Events.

All parts of the Incident Report Form must be completed electronically (never printed) in accordance with the Procedure and following the instructions within the form. The form must only include information and not include speculation about the causes and outcomes of incidences.

5.7 Summary of requirements for incident notification and reporting

The requirements for incident reporting under the POEO Act, Transport for NSW Procedure (refer to Section 4.1) and the Infrastructure approval are summarised in Table 5-3.





Table 5-3 Summary of requirements for incident notification and reporting

Incident type	Notify	Notification timeframe	Notification responsibility	Written report	Written report timeframe	Written report responsibility
Regulatory action (material harm under the POEO Act)	 EPA environment line Fire and Rescue NSW Ministry of health SafeWork NSW Local council 	Immediately	CPB Contractors	In accordance with S5.1.4 of the TfNSW Environmental Incident Classification and Reporting Procedure as required by NSW- CoA A43	Within 7 days of the date on which the incident occurred	CPB Contractors
	Secretary of DP&EMinister for DoEE	Within 24 hours of notification given to EPA	Transport for NSW as required by CoA A41	In accordance with CoA A41		Transport for NSW /CPB Contactors





Incident type	Notify	Notification timeframe	Notification responsibility	Written report	Written report timeframe	Written report responsibility
Regulatory action (other than material harm under the POEO Act):						
discovery of Human remains	 NSW Office of Environment and Heritage (OEH) Minister of DoEE NSW Police 	Immediately	CPB Contractors/ Transport for NSW	In accordance with directions from agencies	As directed or requested	CPB Contractors/ Transport for NSW
if Transport for NSW activities have contaminated land or if Transport for NSW owns land that has been contaminated	EPA	ASAP, at least within 24 hours of the incident	CPB Contractors/ Transport for NSW	In accordance with directions from agencies	As directed or requested	CPB Contractors/ Transport for NSW





Incident type	Notify	Notification timeframe	Notification responsibility	Written report	Written report timeframe	Written report responsibility
 the location of a relic once a relic has been discovered or located 	OEH (Heritage Council)	ASAP, at least within 24 hours of the incident	CPB Contractors/ Transport for NSW	In accordance with directions from agencies	As directed or requested	CPB Contractors/ Transport for NSW
the inability to extinguish any fire burning during a bush fire danger period applicable to the land	An appropriate officer of the NSW Rural Fire Service	Immediately	CPB Contractors/ Transport for NSW	In accordance with directions from agencies	As directed or requested	CPB Contractors/ Transport for NSW
environmental incident with the potential for unapproved impacts	Local water supply authority	Immediately	CPB Contractors/ Transport for NSW	In accordance with directions from agencies	As directed or requested	CPB Contractors/ Transport for NSW





Incident type	Notify	Notification timeframe	Notification responsibility	Written report	Written report timeframe	Written report responsibility
on a drinking water supply						
TfNSW Category 1 Incident (excluding material harm)	Transport for NSW Project Manager and Environmental Manager (or delegate)	Immediately	CPB Contractors	Incident form	Within 3 business days of the incident	CPB Contractors/ Transport for NSW
Critical Incident - Category 1 incidents with potential for: regulatory action (e.g. EPA Penalty Infringement Notice) and/or reputational damage (e.g. media coverage) and/or	Transport for NSW Director Environment Transport for NSW Chief Executive and relevant Executive Director	Immediately	Transport for NSW Director Environment Operation	Incident form	Within 3 business days of the incident	CPB Contractors/ Transport for NSW





Incident type	Notify	Notification timeframe	Notification responsibility	Written report	Written report timeframe	Written report responsibility
significant environmental harm.						
TfNSW Category 2 Incident / Reportable Events	Transport for NSW PM and Environmental Manager (or delegate)	Day of incident	CPB Contractors	Incident form	Within 3 business days of the incident	CPB Contractors
Any incident (as defined in the Infrastructure approval)	Secretary DP&E Minister for DoEE	ASAP, at least within 24 hours of the incident	Transport for NSW	In accordance with CoA A41	As directed or requested	Transport for NSW / CPB Contractors
Any incident that affects or could affect the Warragamba Pipelines, including the pipeline corridor	WaterNSW	ASAP, at least within 24 hours of the incident	Transport for NSW	In accordance with directions from agencies	As directed or requested	Transport for NSW



6 Emergency Spill Response Plan

Clause 4.3 of Transport for NSW Specification G36 requires the development of an Emergency Spill Response Plan (ESRP). The information to be included in the ESRP has been embedded into this PIRMP for ease of implementation. The 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 Transport for NSW and relevant authorities of spills,
- provide a clear outline of when the ESRP will be implemented and who will be responsible for its implementation.

CPB will ensure emergency spill kits 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 Transport for NSW Environmental Incident Classification and Reporting Procedure (Appendix A7 of the CEMP).

The emergency spill response process flow chart (Refer to Figure 6-1) 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 and in Figure 6-1.



6.1 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 1940B1993: The Storage and Handling of Flammable and Combustible Liquids,
- Australian Standard AS 4452B1997: 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.

6.2 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 6.7); 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.

6.3 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.

6.4 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 6-1.

Table 6-1 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.
	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 /	If the booms alone cannot absorb the spill/leak, then use absorbent
Particulate	granules to soak up spilled liquid.
Pads	Best for thinly spread liquids. Reduce the size of the spill/ leak by gently
	pushing the pads towards the centre of the spill.
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.



6.5 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.



6.6 Spill management

Personal protective equipment (PPE)

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

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.

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.

6.7 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 (refer to Section 6.8 below).

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.

6.8 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 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.





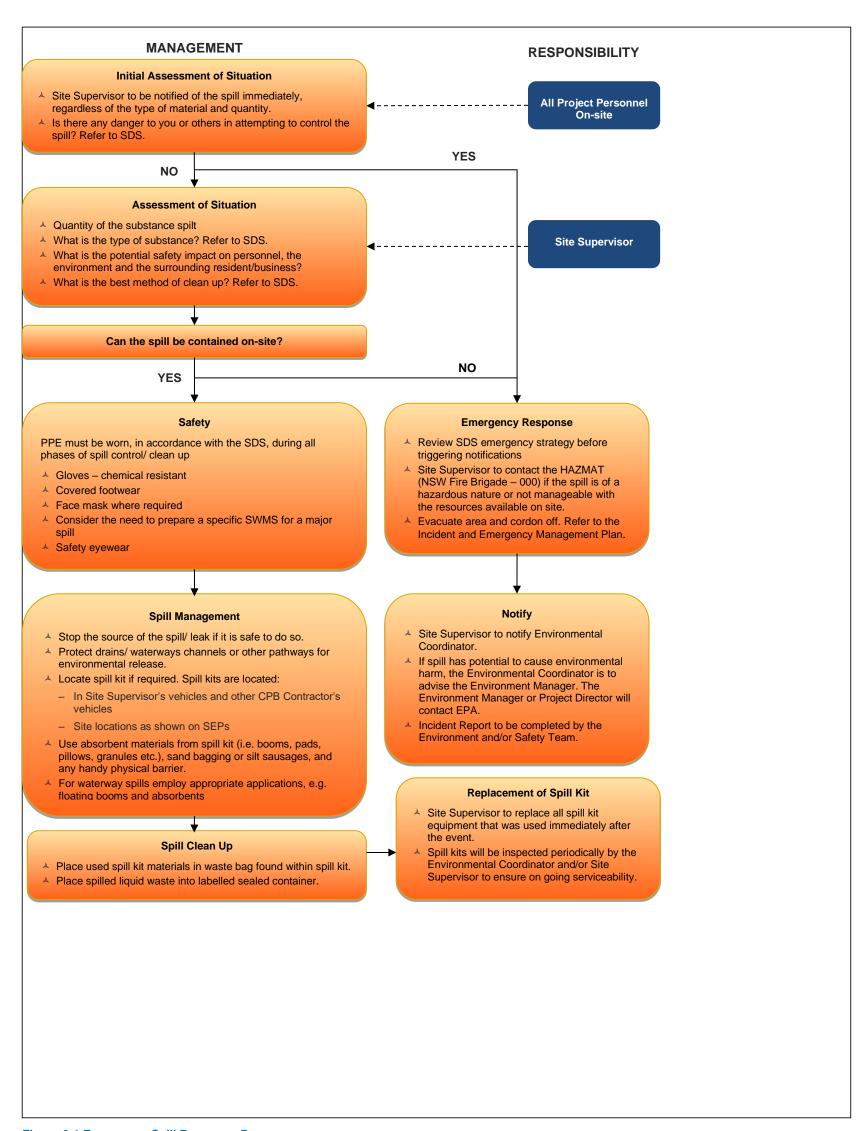


Figure 6-1 Emergency Spill Response Process



7 Reporting, review and training

7.1 Training

All new staff, contractors and visitors to the premises will undergo a site induction. The induction will serve as the training for the PIRMP and will ensure all personnel are aware of this PIRMP and the response procedure to a pollution incident.

Annual training of the requirements of the PIRMP are mandatory under the POEO Act.

Records of training, including the frequency of training, will be maintained.

Refresher inductions on this PIRMP will also be provided to all staff and contractors if there are any amendments, in addition to periodic refresher training on an annual basis.

The training may include toolbox talks, formal staff training on incident management and simulated incident exercises, including with emergency services. The training will be suitable for the level of risk and likelihood of incidents for the Project.

7.2 Testing, review and update

Testing of this PIRMP will be coordinated by the CPB Environment Manager to ensure the information is accurate and current and that the Plan is capable of being implemented in a workable and effective manner. Test results and corrective actions will be reviewed.

Testing is taken to be either a desktop test or an environmental emergency drill. Testing will include all components of this Plan, including training requirements.

Records of testing will be provided in the table presented in Annexure C of this Plan.

A review of the PIRMP will occur in the following circumstances:

- every 12 months. Contact details in this document will be kept current at all times,
- a review of the Plan should be conducted if a training exercise proves the Plan is inadequate, or improvements are recommended,
- within one month of the date of any pollution incident that occurs in the course of an activity to which the EPL relates. This review will be undertaken in light of the incident, to determine if the information included in the Plan is accurate and up to date and the Plan is still capable of being implemented in a workable and effective manner.

The review of the PIRMP will include the following information:

date of the review,



- the name of the person who reviewed the Plan,
- a summary of changes made to the Plan.

Where there are lessons learned from the review or current procedures are identified as being ineffective, the PIRMP and/or CEMP will be revised by the CPB ESR to include improved procedures or requirements.



7.3 Plan availability

CPB will arrange with Transport for NSW to make the necessary parts of this PIRMP publicly available on their website (www.transport.nsw.gov.au) within 14 days of the Plan being prepared. This would include:

- the procedures for contacting the relevant authorities including the EPA, local council, NSW Ministry of Health, SafeWork NSW, and Fire and Rescue NSW,
- the procedures for communicating with the community.

On completion of the annual testing and review process (Section 7.2), or following a test in response to an incident, CPB will review and if necessary amend the PIRMP and make the reviewed or amended version available on the Transport for NSW website.

A hard copy of the PIRMP will be at the site office and will be available to all personnel responsible for implementing the PIRMP. The Plan is to be made available to all subcontractors and utilities onsite. Figure 4-1 will be printed and posted on the wall of all site offices. The PIRMP will be made available to any EPA Authorised Officer on request.



8 Roles and responsibilities

Role Responsibility	
TfNSW Project Manager	 IMMEDIATELY implement this PIRMP when notified that a pollution incident has occurred onsite,
	 must immediately notify (where required) emergency services, key internal contacts, and external contacts as per Figure 4-1,
	 must approve the incident report and submit to the TfNSW Regional Environment Manager who will sign off as concurrence of receipt and submit to PMEO and the Environment Operations mailbox by email on the same day of receipt,
	provide adequate resources for the implementation of this PIRMP.
CPB Project Manager	 IMMEDIATELY implement this PIRMP when notified that a pollution incident has occurred onsite,
	 for Category 1 incidents, immediately advise the TfNSW Site Representative,
	notify and update neighbours as per Figure 4-1, if required,
	undertake post-incident investigation,
	 provide a written pollution incident report to EPA within 7 days of an incident occurring,
	 ensure that sub-contractors and utilities onsite have access to copies of the Plan,
	 monitor that works activities are being undertaken in accordance with the pre-emptive measures in this Plan,
	ensure that work areas have spill kits available,
	 ensure that all employees and contractors are given adequate training in identifying and responding to pollution incidents and ensure they are aware of the penalties for failing to comply.



CPB Environment Site Representative (ESR)

- IMMEDIATELY implement this PIRMP when notified that a pollution incident has occurred onsite,
- in the event of a Category 1 incident, the CBP ESR must immediately advise TfNSW Environmental Representative, TfNSW Project Manager, Nick Fryday (CPB TNR5 and TNR 6 Project Manager) and Tracey Doczy (Business Unit Manager, Environment),
- notifying Transport for NSW and relevant authorities in the event of an environmental incident, reporting on the incidents and managing the close-out of incidents.
- stopping activities where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformities, and advising the Contractor Project Manager, Contractor Construction Manager and Contractor Superintendent
- undertake weekly inspections to assess storage facilities and safety and pollution control equipment,
- review and update this PIRMP within 30 days of the pollution incident,
- provide advice to site staff where required,
- ensure this PIRMP and contact details are kept up to date,
- ensure the emergency incident response procedure is displayed on the noticeboard(s) at crib sheds and site offices.
- testing of the PIRMP.
- must complete the Transport for NSW Environmental Incident Report form 624 and submit to Regional Environment Manager and the Environment Operations mailbox within 3 days of the date of the incident,





9 References

Environment Protection Authority 2012, Environmental guidelines: Preparation of pollution incident response management plans.

Transport for NSW 2015, Environmental Incident Classification and Reporting Procedure



Annexure A Site Risk Assessment





The risk assessment of major hazards for the Project was undertaken according to Regional Maintenance Delivery's Operational Control

	120 1	28	38		2	152	%	- ES - Y		gs	How likely?	5.2	8
	Туре	Health & Safety	Environment	Journey management	Customer, reputational	Service delivery	Legal, compliance, regulatory	Finance, profit	5 Almost certain	4 Likely	3 Possible	2 Unlikely	1 Rare
	5 Catastrophic	Fatality, debilitating or multiple injuries	Persistent long term >10 years impacts, large group of people affected, OEH/EPA involved, widespread media attention, requires extensive remedial action	Main road or freeway closure for multiple peak periods. Unable to meet ROL conditions for >60 min.	Major news headlines; continuous negative media coverage for days/weeks; major outcry.	>75% over project schedule. Project not able to continue, potential cancellation.	Substantial breach of legal or regulatory requirement, Tier 1 / Cat 1 prosecution. Jail term for staff.	Gross margin negative	10 Extreme	9 Extreme	8 Extreme	7 High	6 HIGH
	4 Major	Severe permanently debilitating or life- threatening injury	Long term 1–10 year impacts, complaint to OEH, likely to attract media attention, requires considerable remedial action and notification to EPA.	Main road or freeway closure for one peak period. Unable to meet ROL conditions for period > 30 min.	Adverse publicity in main media; multiple complaints from wider community	40–75% over project schedule. Project not able to continue without redefin- ition of scope, functionality or quality.	Substantial breach of legal or regulatory requirement, Tier 2 /Cat 2 prosecution.	Gross margin 0–50% of adjusted target gross margin amount	9 Extreme	8 Extreme	7 High	6 High	5 Medium
How severe?	3 Moderate	Lost time injury; non-life threatening injury with treatment off site	Medium, up to 1 yr impacts, complaint from community, remedial action required, pollutant within vicinity of site and can be managed with routine procedures	Road disrupted for >30 min outside of peak periods. Unable to meet ROL conditions > 15 < 30 min	Adverse publicity in local media; multiple, repeat complaints from the local community	10–40% over project schedule. Reduction in scope, functionality or quality requiring Client approval.	Breach of legal or regulatory requirement; enforcement action or regul- atory notices, Tier 3 / Cat 3 prosecution	Gross margin 50–70% of adjusted target gross margin amount	8 Extreme	7 High	6 High	5 Medium	4 LOW
	2 Minor	Medical treatment injury	Short term <6 month impacts, mild affect on community, requires some action with minor resources readily available on site	Road network delays experienced up to 30 min outside peak periods. Unable to meet ROL conditions up to 15 min	Minor nuisance that may generate a few complaints from the affected individuals	<10% over project schedule. Minor reduction in schedule, functionality or quality.	Minor non- compliance against legal or regulatory requirement; investigation or report to regul- atory authority.	Gross margin 70% to 90% of adjusted target gross margin amount	7 High	6 нісн	5 MEDIUM	4 LOW	3 LOW
	1 Negligible	First aid treatment injury	Short term <1 week impacts, community not affected, on site incident immediately contained.	Single minor delay on a low network cate- gory road out- side peak period	No adverse publicity; unlikely to attract attention of local community	Insignificant schedule slip- page. Barely noticeable red- uction in sched- ule, functionality or quality.	Low level non- compliance, no infringement, no penalty or prosecution.	Gross margin 90% to 100% of adjusted target gross margin amount	6 HIGH	5 MEDIUM	4 LOW	10W	2 LOW





Procedures – Risk assessment (2013). The matrix used for the assessment is reproduced below.

Hazard	Risk	Consequence	Likelihood	Risk Rating		Mitigation measures	Residual	consequence	Residual likelihood	Residual Risk	
Fire, Explosion, Bushfire	Injury to Personnel Damage to the Environment	4	2	6	HIGH	staff induction, limit access to vegetated areas to avoid access to existing fire fuel sources (e.g. protection fencing and exclusion zones), emergency services will be contacted as necessary No-go area mapped in EWMS for early works. No entry of works off hard stand area on total fire ban days. General purpose fire extinguishers and fire extinguishers suitable for oil/fuel fires will be available in all offices, plant and vehicles.	4		1	5	MODERATE





Hazard	Risk	Consequence	Likelihood	Risk Rating	Mitigation measures	Residual	consequence	Residual likelihood	Residual Risk	
					Personnel onsite will be familiar with the use of fire-fighting equipment. Fire-fighting equipment will be maintained					
					regularly. Hot Works Permits as required					
					Hazardous materials to be stored in accordance with Safework requirements and the requirements of the SDS					
Truck, plant or vehicle collision / rollover	Release of hydrocarbon (Fuel/Oil)	3	3	6	 staff induction, a Construction Traffic Management Plan (CTMP) will be produced for the Project and will include specific Construction Traffic Control Plans (CTCP) for work stages and active work areas,	3		1	4	LOW





Hazard	Risk	Consequence	Likelihood	Risk Rating	Mitigation measur	·es	Residual	consednence	Residual likelihood	Residual Risk	
					First Aid kits will be as well as at site co	kept in each vehicle and plant pmpounds,					
					spill kits will be store active work areas.	red at site compounds and other					
					Experienced operat (VOC as required)	tors of plant and machinery					
					Weather condition r	monitoring					
					Spill kits available						





Hazard	Risk	Consequence	Likelihood	Risk Rating		Mitigation measures	Residual	consequence	Residual likelihood	Residual Risk	
Escape, Spillage or Leakage of Hazardous Substance	Contamination of soil, water, air	3	3	6	HIGH	Staff induction. Spill kits will be kept at site compound areas and onsite. Refuelling in designated areas only All plant will be inspected before delivery to site and regularly during operation for leaks. All SDS will be kept onsite and will be readily accessible. Drilling slurry from geotechnical investigation activities will be captured and taken offsite for disposal at authorised facility. Regular inspections of fuel and chemical storage areas	3		1	4	LOW





Hazard	Risk	Consequence	Likelihood	Risk Rating		Mitigation measures	Residual	consequence	Residual likelihood	Residual Risk	
						Asbestos identification training for key staff. CPB Construction Contaminated Land Management Plan (CCLMP) and comprised Asbestos Management Plan. CPB Construction Soil and Water Management Plan (CSWMP).					
Damage to existing utilities	Release of large quantities of water in a short period of time (Warragamba pipeline) Damage to other overhead and underground services	3	3	6	HIGH	staff induction, utilities will be located and surveyed prior to adjacent work, 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,	3		1	4	LOW





Hazard	Risk	Consequence	Likelihood	Risk Rating	Mitigation measures	Residual	consequence	Residual likelihood	Residual Risk	
					CPBs Construction Noise and Vibration Management (CNVMP) has been developed for the Project. Vibration monitoring as required, and re-assess vibration causing activities when working within safe distance of sensitive areas					
Uncontrolled release of stormwater	Breach of EPL conditions, and pollution of environment	3	3	6	 staff induction, Construction Soil and Water Management Sub- Plan, EWMS will be created for works near waterways and environmentally sensitive areas, onsite sediment basins and other suitable and appropriate erosion and sediment controls will be					





Hazard	Risk	Consequence	Likelihood	Risk Rating	Mitigation measures	Residual	consequence	Residual likelihood	Residual Risk	
					implemented to manage stormwater prior to it leaving the site, as required,					
					ancillary facilities to have appropriate erosion and sediment controls in place.					
					Implement the project Construction soil and water Management Plan,					
					Regularly review and update erosion and sediment control plans					
					Monitor weather conditions and prepare the site for predicted wet weather events as far as practicable					





Hazard	Risk	Consequence	Likelihood	Risk Rating	Mitigation measures	Residual	consednence	Residual likelihood	Residual Risk	
Asbestos	Unexpected contamination, and risk to health	3	3	6	 targeted training for relevant staff, Asbestos Management Plan (located within Appendix B10 – CCLMP). CPB Construction Contaminated Land Management Plan (CCLMP) and comprised Asbestos Management Plan. CPB Construction Soil and Water Management Plan (CSWMP).	5		3	2	MEDIUM





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Annexure B PIRMP Training Register

Date	Trainer Name	Trainee Name	Content Covered					
9/9/2020			Getting personnel trained on what to do in the event of an emergency – (Prepare & Prevent)					





Annexure C PIRMP Review and Testing Register

Manner of Testing	Tested by	Testing Outcomes
Desktop Test	·	All components of PIRMP reviewed to ensure information is accurate and current and that the Plan is capable of being implemented in a workable and effective manner.
Desktop Test	Simon Lendrum	Updated contact details
Desktop Test	Simon Lendrum	Updated contact details
	Testing Desktop Test Desktop Test	Testing Desktop Test Vincent Chaplin Desktop Test Simon Lendrum

