Pollution Incident Response Management Plan

Sydney metro City & Southwest Line Wide Works

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Document Approval

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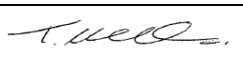
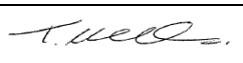
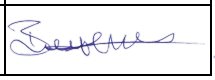
Signature:					

Details of Revision Amendments

Document Control

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

Amendments

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

Revision Details

Revision	Details
A	Issued for information with EPL application (Application retracted)
0	Issued for information with EPL application
1	Peroidic review following test of plan
2	Peroidic review following test of plan
3	Periodic review following test of plan

Contents

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Pollution Incident Response Management Plan

1. Introduction

1.1 Pollution Incident Response Management Plan

This Pollution Incident Response Management Plan (PIRMP) has been prepared for the Sydney City Southwest Line-wide Works (LWW). LWW is being delivered by Systems Connect a joint venture between CPB Contactors Pty Limited and UGL Engineering Pty Limited. This Plan addresses requirements for works under EPL 21423 for Railway Infrastructure Construction between Chatswood and Sydenham, also being delivered under CSSI Planning Approval 7400. The scheduled activity, Railway Infrastructure Construction is trigged by construction activities commencing on 3/8/2020.

1.2 Scope of work

The Sydney Metro City & Southwest (SMCSW) project will extend Sydney Metro Northwest to the CBD and beyond to Bankstown. The project is being delivered through a suite of contracts for the tunnels, stations, Line-wide infrastructure and systems. Line-wide is a key component of the SMCSW, with works taking place over the full length of the project as described in Figure 1

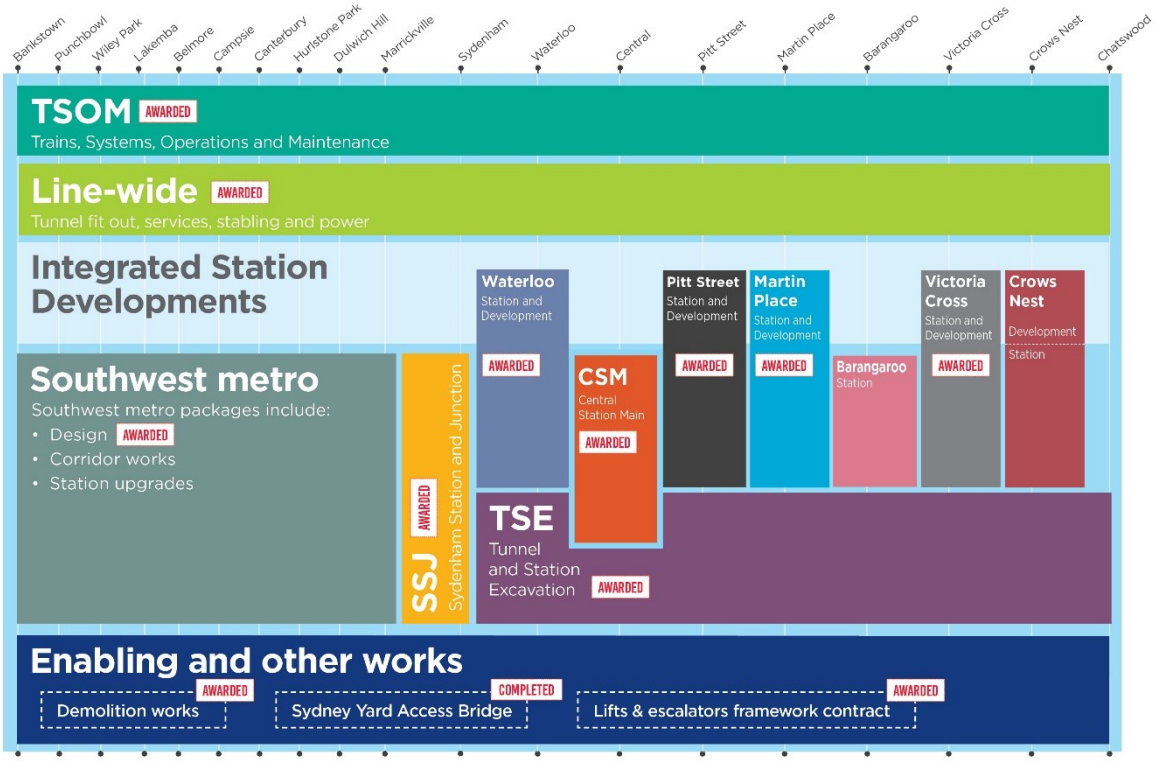

Figure 1 – SMC&S works packages

1.3 Line-wide Works project locations.

Figure 2 shows the locations of works to be delivered by Systems Connect. As noted above, this PIRMP has been developed to address LW construction activities occurring between Chatswood and Sydenham (portions 2 and parts of portion 3 described below).

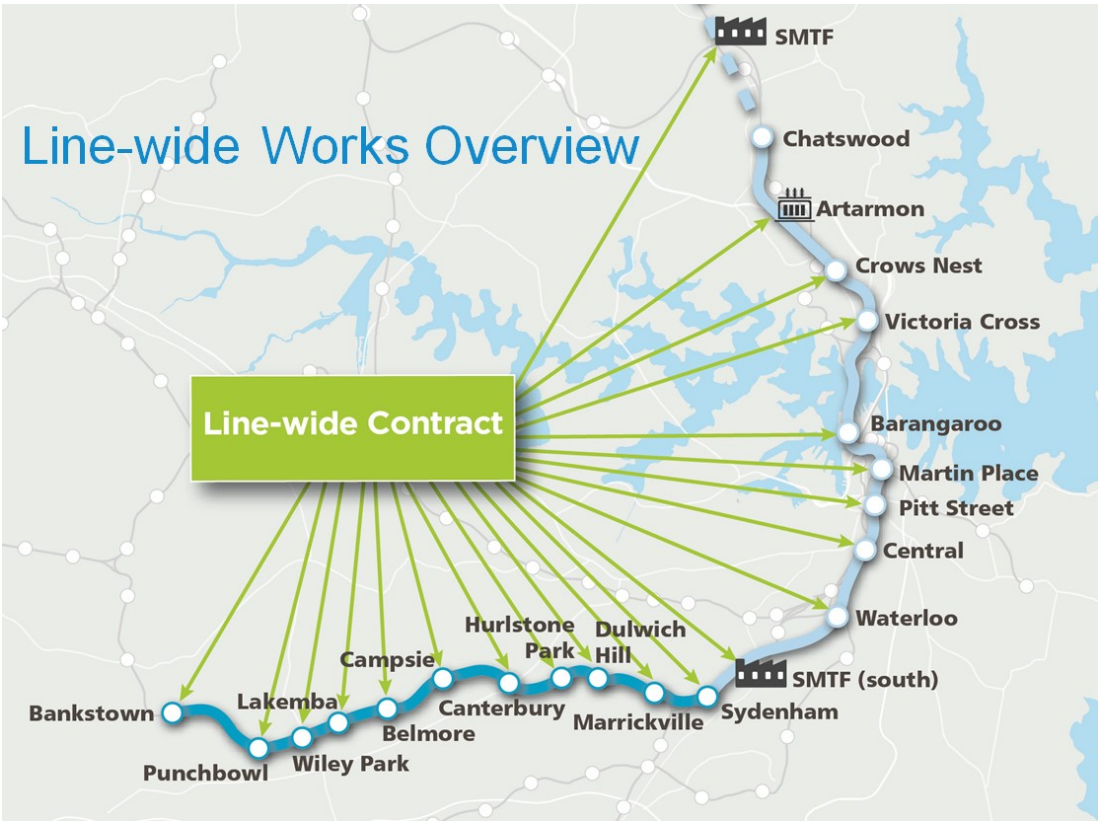

Figure 2 - LW Location

1.4 Line-wide Scope of Works

LW includes design and construction of permanent systems, services and building works within, adjacent, or required for rolling stock to travel through the SMCSW Tunnels and Trackway. The scope of work being delivered by Systems Connect is defined in Schedule C1 Scope of Works and Technical Criteria (SWTC) of ITCC 600 and summarized below:

- 31 kilometres of underground railway track to be laid in the twin railway tunnels from Chatswood to Sydenham;
- 31 kilometres of overhead power equipment and 11 new substations to power the metro from Chatswood to Bankstown;
- Installation of over 350km of high voltage, low voltage and tunnel services cables;
- The expansion of the Sydney Metro Trains Facility at Rouse Hill to accommodate 37 new six car Sydney Metro trains for Sydney Metro City & Southwest;
- The construction of the Sydney Metro Trains Facility South at Marrickville to provide stabling for 16 six car Sydney Metro trains;
- Installation of tunnel equipment such as track systems, overhead wiring, ventilation, drainage and emergency evacuation and monitoring equipment; as well as the fit out of the tunnel ventilation and high voltage equipment in the seven new underground stations.
- Delivery of bulk power feeds to meet the Sydney Metro City & Southwest high voltage reticulation and traction power requirements between Chatswood and Bankstown
- The open northern dive works to tie Sydney Metro City & Southwest into the Sydney Metro Northwest at Chatswood
- The Southern dive works at Sydenham

The above works will be delivered in 4 distinct Portions. This plan addresses obligations associated with delivery of Portions 2 & 3. An overview of the scope of each Portion is provided in the below sections.

1.4.1 Portion 2 – SMTF South Works

Portion 2 is delivered under CSSI 7400. SMTF South, at Marrickville, caters for the operation of the Sydney Metro for SMCSW and includes:

- Civil works
- Track system comprising stabling, shunting and maintenance roads
- Infrastructure maintenance facilities including a maintenance workshop, siding, materials storage facilities and parking
- Train maintenance facilities
- Overhead wiring for new track systems
- Mechanical, hydraulic and electrical services for the facility
- Administration buildings
- Access to the groundwater treatment plant located within SMTF South.

Construction of Portion 2 will occur between Q3 2020 to Q3 2023. Works expected to start in August 2020.

1.4.2 Portion 3 – Chatswood to Sydenham Tunnels and Stations Works

Portion 3 is also delivered under CSSI 7400. Delivery of Portion 3 is broken down into works above and below ground as described in the following table:

Note: Portion 3 works prior to August 2020 are undertaken within the Sydney Trains rail corridor under Sydney Trains EPL 12208. Bulk Power Supply (BPS) works being undertaken outside the rail corridor do not form part of the works governed by the Systems Connect (CPB EPL 21423).

Table 1 - Description of works for Portion 3

LW worksite	Construction Activities	Indicative Timeframes*
Portion 3	**Chatswood to Sydenham Tunnels and Stations Works**	**Q1 2020 to Q4 2023**
Tunnel and Underground Stations- Including Blues Point access shaft	Delivery of materials via surface portals Track Construction including Tamping, Grinding & Turnouts OHW Foundations, Structures and Wiring Structures Utilities fit out and connections in station rooms	Aug 2020 to Mar 2023
Open Northern Dive	Construction Compound & Car Park Site establishment Permanent Down (Sydney Trains Works) Earthworks & CSR; Stormwater Drainage/ Sewer/ Potable / Recycled Water Excavation Track Construction including Tamping, Grinding & Turnouts OHW Foundations, Structures and Wiring Structures Open Dive (Sydney Metro Connection) FRP (Capping Beam) Earthworks & CSR; Stormwater Drainage/ Sewer/ Potable / Recycled Water Excavation Track Construction including Tamping, Grinding & Turnouts OHW Foundations, Structures and Wiring	Feb 2020 to Feb 2021 Mar 2020 to Jun 2020 Mar 2020 to Jan 2021 Sep 2020 to Jan 2021 Jun 2020 to Sep 2020 Apr 2020 to Jul 2020 Jul 2020 to Nov 2021 Mar 2020 to Apr 2021 Aug 2020 to Sep 2022 June 2022 to Nov 2022

LW worksite	Construction Activities	Indicative Timeframes*
Open Southern Dive	FRP (Capping Beam) Earthworks & CSR; Stormwater Drainage/ Sewer/ Potable / Recycled Water Excavation Track Construction including Tamping, Grinding & Turnouts OHW Foundations, Structures and Wiring	Aug 2020 to Oct 2022
Waterloo to Surry Hills BPS Route	Site establishment General worksite, car parking, storage, delivery & laydown area	May 2020 to Mar 2022
Artarmon to Willoughby BPS Route	Site establishment General worksite, car parking, storage, delivery & laydown area	Jun 2020 to May 2021
Artarmon to Willoughby BPS Route	Site establishment Cable routes excavation, conduits installation, temporary surface reinstatement Cable Installation and Jointing	Jun 2020 to May 2021 Jul 2020 to Dec 2020 . Dec 2020 to Mar 2022

**Timeframes are indicative and are subject to change as the program progresses.*

1.4.3 Portion 4 – Power Supply Works

Portion 4 is delivered under CSSI 8256. Portion 4 is also delivered under 2 sub-portions, the BPS works outside the rail corridor and construction of traction substations and power works within the rail corridor. Refer to *Table 2* below for details and timings. Portion 4 works are not subject to EPL 21423 and are not governed by this PIRMP.

Table 2 - Description of works for Portion 4

LW worksite	Construction Activities	Indicative Timeframes*
Portion 4	**Power Supply Works**	**Q1 2020 to Q3 2023**
Campsie to Canterbury BPS Route Compound	Site establishment General worksite, car parking, storage, delivery & laydown area	Feb 2020 to Mar 2020 Feb 2020 to Mar 2021
Campsie to Canterbury BPS Route	Site establishment Cable routes excavation, conduits installation, temporary surface reinstatement Cable Installation and Jointing	Feb 2020 to Mar 2021 Feb 2020 to Mar 2021 . Oct 2020 to July 2023
Modular Traction Substations	Excavation for TSS footings and basement FRP for basement slab and walls Delivery of building on site Fencing & precast panels	Aug 2020 to Aug 2022 Aug 2020 to Aug 2022 Aug 2020 to Aug 2022 Aug 2022 to July 2023
Rail corridor Power cables and ancillary works	HV Cabling (Marrickville Dive to Campsie Traction Substation) HV Cabling (Campsie to Bankstown) 11kV Pad mount Substation Installation (Marrickville to Bankstown)	Dec 2020 to Aug 2023 Dec 2020 to Aug 2023 Mar 2021 to Jan 2023

**Timeframes are indicative and are subject to change as the program progresses.*

1.5 Scope and Purpose of the PIRMP

This PIRMP covers works describes above that are included in Portion 2 & 3 of the Line-wide scope of work. As noted above the scheduled activity, Railway Infrastructure Construction is trigged by construction activities commencing on 3/8/2020.

The PIRMP has been developed by the project in response to amendments to the Protection of the Environment Legislation Amendment Act 2011 as set out in Part 5.7A of the Protection of the Environment Operations Act 1997 (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 applicable.

Whilst deviation from the plan should be avoided, all events shall be managed according to the specific conditions of the incident.

The PIRMP provides an easily interpreted reference document that ensures pollution incidents are managed and responded to in an appropriate manner.

The PIRMP is applicable to LW project activities during both the design and construction phases and describes how Systems Connect proposes to manage and control potential hazards and risks associated with the project.

The PIRMP documents the risk assessment process implemented and the activities that create pollution risks associated with the project. 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 have been 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
- Testing of the PIRMP, and
- Training of personnel.

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 already in place on the Project.

1.6 Availability and location of the Plan

The PIRMP will be uploaded on to the project website as a requirement under the POEO Act and the Protection of the Environment Operations (General) regulation 2009 s98D.

The Plan is located at:

- The Systems Connect Site Office; and
- On the CPB Environment Webpage

In any event, this Plan will be made available by locating printed copies in the same locations as the Environment Protection Licence (EPL).

2. Description and Likelihood of Hazards

2.1 Project Hazard and Risk Assessment

Overall hazards and risk for the Project are determined through the following Project Management System and Plans:

- Project Management Plan
- Project Risk Management Plan
- Project Work Health and Safety (WH&S) Management Plan
- Construction Environmental Management Plan (and Sub Plans)
- Emergency Management Plan

2.1.1 Hazard and risk assessment procedure

At the task level, individual risks are managed through the Safe Work Method Statements (SWMS) Procedures and work instructions. This procedure identified hazards associated with a work task and develops solutions for each hazard that either eliminates or controls such hazards.

2.1.2 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 described in the project's Construction Environment Management Plan (CEMP) and copied here in **Tables 1** and **Table 2** below.

Table 3: Likelihood criteria

Risk Likelihood Table						
Rating	**L6**	**L5**	**L4**	**L3**	**L2**	**L1**
Descriptor/ Definition	**Almost Unprecedented**	**Very Unlikely**	**Unlikely**	**Likely**	**Very Likely**	**Almost Certain**
Qualitative Expectation	Not expected to ever occur during time of project	Not expected to occur during the time of project	More likely not to occur than occur during the time of project	More likely to occur than not occur during time of project	Expected to occur occasionally during time of project	Expected to occur frequently during time of project
Quantitative Frequency	Less than once every 100 years	Once every 30 to 100 years	Once every 1 to 30 years	Once each year	1-10 times every year	10 times of more every year

Table 4: Consequence criteria

Consequence Table		
Rating	**Descriptor**	**Environment Consequence**
C6	**Insignificant**	No appreciable changes to environment and/or highly localised event
C5	**Minor**	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries
C4	**Moderate**	Short term and/or well contained environmental effects. Minor remedial actions probably required
C3	**Major**	Impacts external **ecosystem** and considerable remediation is required
C2	**Severe**	Long-term environmental impairment in neighbouring or valued ecosystems. Extensive remediation required.
C1	**Catastrophic**	**Irreversible** large-scale environmental impact with loss of valued ecosystems.

2.1.3 Risk Matrix

A Risk Matrix (**Table 3**), copied from the project CEMP, is used to evaluate the severity of the risk for each environmental aspect. As shown, the matrix axis are those of likelihood and consequence using the measures given above. A scale of consequences from 1 to 6 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 **Table 4**.

Table 5: Risk Matrix

Risk Matrix Evaluation Table								
Risk Ratings A = Very High B = High C = Medium D = Low			**Consequence**					
			Insignificant	Minor	Moderate	Major	Severe	Catastrophic
			C6	C5	C4	C3	C2	C1
Likelihood	Almost Certain	L1	C	B	B	A	A	A
	Very Likely	L2	C	C	B	B	A	A
	Likely	L3	D	C	C	B	B	A
	Unlikely	L4	D	D	C	C	B	B
	Very Unlikely	L5	D	D	D	C	C	B
	Almost Unprecedented	L6	D	D	D	D	C	C

Risks are escalated within the project to the level at which appropriate delegation and influence can be employed to effectively implement and manage risk controls. The following table, which accords with the requirements of Sydney Metro Risk Management Standard SM RM-ST-201 identifies the project risk escalation strategy based upon the determined risk score.

Table 6: Risk Escalation Matrix

Risk severity	Action items and escalation hierarchy	Review Frequency
Generally Intolerable	Very high risks are generally intolerable and should be avoided except in extraordinary circumstances. Where the risk has health, safety or environmental consequences the activity must not be undertake without the explicit approval of Sydney Metro. An alternative solution must be found and all necessary steps must be taken to reduce the risk below this level, without delay.	Each month
Undesirable	High risks are undesirable. They can only be tolerated if it is not reasonably practicable to reduce the risk further. Where the risk has health, safety or environmental consequences, the activity must not be undertaken without the explicit approval of the Supplier's Representative and the Safety, Environment and Sustainability Manager who are to verify that all reasonably practicable treatments have been implemented. High risks are considered to be on the verge of being unacceptable and must be given immediate priority.	Each month
Tolerable	Medium risks are tolerable if it is not reasonably practicable to reduce the risk further. Where a risk has health, safety or environmental consequences the activity should be reviewed by the Safety, Environment and Sustainability Manager to determine if the risk can be reduced further and whether all reasonable and practicable controls have been considered and/or applied. Additional treatment measures should be sought if significant benefit can be demonstrated and/or there is an additional treatment measure which is recognized as good practice in other environments	Every two months
Broadly Acceptable	Low risks are considered to be broadly acceptable. Where the risk has healthy, safety or environmental consequences control measures should be effective, reliable and subject to appropriate monitoring If options for further risk reduction exist and costs are proportionate to the benefits, then implementation of such measures should be considered. The risk and its treatments should be subject to appropriate degrees and forms of monitoring to ensure that it remains at this level.	Quarterly

The hazards and risk assessment uses **Table 2** to consider the potential consequences, probability and risk of a number of 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 C3** of the Construction Environmental Management Plan – C2B (CEMP) SMCSWLWC-SYC-1NL-PM-PLN-000033, as well as being discussed in more detail in the relevant Sub Plans to the CEMP.

3. Implementation

3.1 PIRMP Activation

The PIRMP will be activated if an incident causes or threatens material environmental harm (as described in Section 147 of the Protection of the Environment Operations Act) and as defined in **Section 3.1.1**. This activation process will include the involvement of the Environment and Sustainability Manager and the Project Director and will involve undertaking measures to mitigate the risk and ensure that the area is safe.

3.1.1 Environmental Harm

Section 147 of the POEO Act defines meaning of material harm to the environment:

(1) For the purposes of this Part:

(a) harm to the environment is material if:

(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.

(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

3.2 Pre-Emptive Actions to be taken

The key to effective prevention of incidents is risk assessment, procedure development, monitoring and training, and compliance. During construction, Line-wide Works inspections and preventive actions include:

- Activity specific and daily risk assessments
- Development of work procedures and construction method statements in consultation with relevant Project 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
- On-going environmental training
- Environmental management audits of work sites, subcontractors and compliance issues
- Community notification and construction updates

Safe Work Method Statements (SWMS) and/ or 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 Site Environmental Plans - SEPs) 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 the CEMP associated Sub Plans and aspect specific Procedures such as the Soil and Water Management Procedure. This process is detailed in the Manage and Report SHE Incidents attached in **Appendix A**.

In addition, the following specific measures (**Table 5**) are to be implemented to minimise the risk of an incident occurring.

Table 7 Control Measures

Category	Hazard	Controls
Spills and Leaks (chemical, fuel, hazardous liquids)	• Refuelling • Transport of chemicals, fuel and hazardous liquids • Handling, storage and disposal of chemical, fuel and hazardous materials • Plant and equipment maintenance • Site establishment - site compounds, access points and access routes • Adjustments of existing public utilities • Vehicle wash down • Concreting activities • Water cart operations • Dismantling of existing structures • Concreting activities • Site revegetation • Operation of site compound	• Plan and implement works to minimise the possibility of pollution • Use and store chemicals and dangerous goods strictly in accordance with relevant legislation, manufacturer instructions and the SDS • Establish transport, handling, storage and application methods (with the relevant method statement) to prevent chemical, fuel and lubricant spillage on or around the site • 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 oil-spill kits in emergency response, superintendents' and the Environmental Manager's vehicles and vehicles that carry substantial quantities of chemicals • 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) • Ensure chemical drums removed from bunded areas are not left unattended • The major response to spills and leaks will involve containing the offending material • 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 • Transport of chemicals, fuel and hazardous materials • Dismantling of existing structures • Dewatering • Sediment basin management • Removal, stockpiling and respreading of soil • Operation of site compound • Removal, stockpiling and respreading of soil • Contaminated soils, Acid sulphate soils, Contaminated materials	• Bund and cover all liquid storage areas – ensure 120% of liquids stored can be captured within the bund • 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 • 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 • 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 Discharge system. Contact Environment Manager • Ensure records are kept of water quality checks, discharges and any remedial actions taken
Bushfire	• Vegetation clearing	• 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
	• Handling, storage and disposal of hazardous materials • Dismantling of existing structures • Construction activities involving hot works (open flame equipment) • Adjustments of existing public utilities.	• Fit spark arrestors to plant that could discharge sparks while being used during proclaimed high fire danger periods • No cutting, welding, grinding and other activities with the potential to generate sparks will take place in the open on total fire ban days • In areas of high risk fire mats will be placed under areas being used for welding • 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 • 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 • Monitor weather conditions • Plan and implement works to minimise the possibility of pollution. • 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 • Equip personnel and vehicles involved in such activities with flood mitigation equipment and safety equipment. Note: where flooding results from a rainfall (exceedance) event the Controlled Water Overflow Management Strategy, SMCSWLWC-SYC-CSW-EM-PLN-004408, is implemented
Construction Occupational Health & Safety	• Transport • Survey Work • Plant & Equipment • Noise Impacts • Identified and Unidentified Utilities • Worker Safety • Hazardous Materials • Manual handling • Electrical hazards • Blasting • Confined spaces • Plant Rollover	• Ensure site safety procedures are implemented Note: WH&S risks are only covered in a broad sense in this Plan but are covered comprehensively through the Project Health and Safety Management Plan and SWMS processes

3.3 Minimising Harm to Persons on the Premises

In the event of an emergency that is likely to cause harm to persons the Emergency Response Plan SMCSWLWC-SYC-1NL-PM-PLN-000748 shall be followed.

3.4 Safety Equipment

The Project's Safety and Environment & Sustainability Managers shall ensure that emergency equipment is available at each site, and appropriately located and maintained in good working order.

Consideration will also be given to the establishment of a set of emergency equipment located centrally and available to all sites.

An equipped first aid shed that can be utilised in an emergency is located at the Projects main site compounds.

All Project vehicles are also equipped with a Type C first aid kit as a minimum which is to be kept fully maintained at all times.

Materials for handling environmental spills will include oil spill kits and sand bags, together with other items as deemed to be appropriate.

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 Safety Manager, in consultation with the Environment & Sustainability Manager, 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.

Minimum emergency equipment at all sites is identified in **Table 6**.

3.4.1 Minimum Emergency Equipment on Site

Table 6 provides the following minimum emergency equipment that will be available at each location.

Table 8 Minimum Emergency Equipment on Site

Location	Equipment	Numbers
Work Areas	Clean up Fuel / Oil Absorbent Spill Pads	50
	Clean up Fuel / Oil Absorbent Water Booms	3
	Fibreglass Stokes Litter (Stretcher)	1
	"A" Standard First Aid Kit – Portable	1
	Dry Chemical Powder Fire Extinguishers	1
Site Compound	Fully Equipped First Aid Room	1
	Oxy Viva Oxygen Treatment Kit	1
	Automatic Defibrillator Equipment	1
	Fibreglass Stokes Litter (Stretcher)	1
	Portable Trauma Kit	1
	"B" Standard First Aid Kit – Portable	2
	"A" Standard First Aid Kit - Fixed	1
	3.5 kg CO2 Fire Extinguishers	1*
Site Compound Kitchen/s	"B" Standard First Aid Kit - Fixed	1
	2 kg Dry Chemical Powder Fire Extinguishers	1*
	Fire Blanket	1
Crib Room/s	1 kg Dry Chemical Powder Fire Extinguishers	1*
	Fire Blanket	1

Note: The number of extinguishers depends on Building Code of Australia requirements
* - Main compound encompasses crib rooms and kitchens.

3.5 Inventory of Pollutants

Table 7 provides an inventory of pollutants, their location(s) on the project, as well as minimum controls for mitigating / controlling the pollutant on the project.

Table 9: Inventory of Pollutants

Pollutant	Location	Controls
Hazardous substances	• Hazardous Substances Register includes location and indication of quantities stored on the site	• The register is maintained by the Safety Manager and will be made available to Emergency services as required • Safety data sheets are available in first aid rooms • Hazardous and dangerous substances (including all fuels, oils, lubricants and chemicals) brought onto the worksite are only to be handled or stored within designated bunded areas to ensure retention of any spills or leaks. • Storage and bunding for areas for hazardous liquids is to conform with AS1940 – Storage and Handling of Flammable Liquids and AS/NZS 4452 • Storage and Handling of Toxic Substances. Storage of hazardous solids is be 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 onsite reuse or off site reuse/disposal	• Spoil, topsoil and mulch are stockpiled onsite in allocated areas. Mitigation measures for dust control and surface water management will be implemented as per the Air Quality Management procedure and the Soil & Water Management Procedure • Liquid wastes are 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 the EPA waste disposal guidelines • All other recyclable or non-recyclable wastes are stored in appropriate covered receptacles (e.g. bins or skips) in appropriate locations onsite and contractors commissioned to regularly remove/empty the bins to approved disposal or recycling

Erosion and Sediment	• Approved sediment basins and discharge locations (See EPL)	• Erosion and sedimentation is managed in accordance with the Soil Water and Groundwater Management Sub Plan and associated Procedures. , this includes:
		  • Maximise the diversion of storm water runoff containing suspended solids to sediment basins
		  • Maximise the reuse of captured storm water
		  • 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 pumping permit prior to release

		• Floats and other devices including hard (fail safe) controls used at the pump inlet • Basin must be discharged within 5 days of the cessation of rainfall • Sediment basins are designed to meet the 85th percentile (5 day) rainfall depth (mm) average value for the Liverpool area and this equates to 32.2mm (85th percentile) for 5 day rainfall event, after which over topping may occur • Sediment basins shall be treated to project water quality standards prior to active discharge from site by SC personnel Note: where flooding of station box or tunnels results from a rainfall (exceedance) event the Controlled Water Overflow Management Strategy, SMCSWLWC-SYC-CSW-EM-PLN-004408, is implemented Management of discharge from the Chatswood Dive Site is via the licenced discharge point downstream of the Water Treatment Plant.
Air Quality	• Earthworks, Temporary Haul roads, batch plants	• All (environmental) air quality shall be managed in accordance with the Air Quality Management Sub Plan and procedure. • 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 on-site materials batching plant • Sealing of temporary haul roads • Applying dust block or similar material to exposed surfaces so as to supress possible generation of dust during periods of high winds • Compacting exposed surfaces in the event of high winds, • Modification of operations during high or unfavourable wind conditions

4. Communication

4.1 Community Consultation

In the event of a pollution incident occurring that threatens to cause harm to human health or material harm to the environment, the following notification protocol is to be followed:

1. Environmental, Engineering and Safety staff will determine the impacted area on a case by case basis, dependent on the nature of the incident, and assess the community catchment requiring notification and/or consultation.
2. Early warnings will be issued by door knocking, phone calls (where contact details are available) and letterbox drops where residents are not at home.
3. Notifications to affected residents will include details of the incident, time frame of the impact, precautions to take and the mitigation measures to put in place, determined in consultation with relevant authorities.
4. Instructions to minimise health impact specific to the nature of the incident, for example to keep children inside and protect animals, for airborne pollutants to close windows and doors, take extra care if they have respiratory issues, and for water incidents avoid contact with waterways and use of extracted water.
5. Sensitive receivers such as schools, childcare centres, nursing homes, hospitals are to receive priority notification of pollution incidents.

Ongoing community relations under the CEMP and Community Communication Strategy will ensure the community is kept up to date on pollution incidents and other matters.

Examples where an early warning may be required include:

- Extreme wind conditions where dust, erosion or asbestos threatens to impacts on neighbours or a waterway
- If a spill enters a water system and threatens to impact on neighbours or the health of a waterway
- Hazardous chemical spill or leak which threatens to impact on neighbours or a waterway
- Fire which creates smoke that may impact on neighbours or threatens a neighbouring property.

4.2 Contact Details

The Emergency Response Management Plan contains an all relevant contact details in the event of an emergency on site. **Table 8** below lists the key project contact details in the event of an incident or a pollution event.

Table 10 Contact Details

Position	Name	Numbers	Other Details
Project Director	Brett McGrane	0457 519 811	24 hour contact on call
General Superintendent	Stephen Bush	0409 186 716	24 hour contact on call
Environment Advisor	Tristan McCormick	0448 453 366	24 hour contact on call
SHEQ Manager	Craig Goodwin	0458 498 107	24 hour contact on call
Rail Safety Manager	Matthew Carnie	0407 852 621	24 hour contact on call
Project Environmental Representative	Swathi Gowda	0404 031 391	
EPA Pollution Line		131 555 or (02) 9995 5555	
Willoughby City Council		(02) 9777 1000	
North Sydney Council		(02) 9936 8100	
City of Sydney Council		02 9265 9333	
Inner West Council		02 9392 5000	

5. Emergency Procedures

The definition of a '*pollution incident*' as detailed in the POEO Act 1997 is:

"pollution incident" means 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.

5.1 Pollution Incident Response Procedures

In the event a pollution incident occurs, the emergency response process must be followed. An incident notification form (SHE Flash Report) is included in **Appendix B**.

Refer to the project's Emergency Response Plan for specific construction area plan templates for managing previously identified incidents and emergencies.

5.2 Notification

Pollution incidents posing material harm to the environment should be notified to each 'relevant authority' as defined in section 148(8) of the POEO Act. 'Relevant authority' means:

- the appropriate regulatory authority (ARA)
- the Environment Protection Authority (EPA) if they are not the ARA
- the Ministry of Health
- SafeWork NSW (formerly WorkCover)
- the local authority, e.g. the local council, if this is not the ARA
- Fire and Rescue NSW.

The Environment & Sustainability Manager will notify the EPA (**131 555**) immediately (i.e. promptly and without delay) of pollution incidents which have occurred in the course of the project's activities, as well as the 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 incidences that could constitute material harm include such things as:

- 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 (as applicable);

- DPIE, in consultation with Sydney Metro Project Representative
- SafeWork NSW – **13 10 50**
- Ministry of Health – **1300 066 055** or **(02) 9391 9000**
- Relevant City Councils – Refer to Table 10 above
- Fire and Rescue NSW - **1300 729 579**

The Sydeney Metro Project Representative will be notified verbally within 2 hours and in writing within 24 hours of any pollution incidents involving the EPA.

All incidents shall be notified to the Environmental Representative in accordance with CPB Contractor's HSE system. All incidents shall be recorded within the Systems Connect Project Monthly Environment Report.

Notification to the community will be conducted using methods outlined in **Section 4.1**.

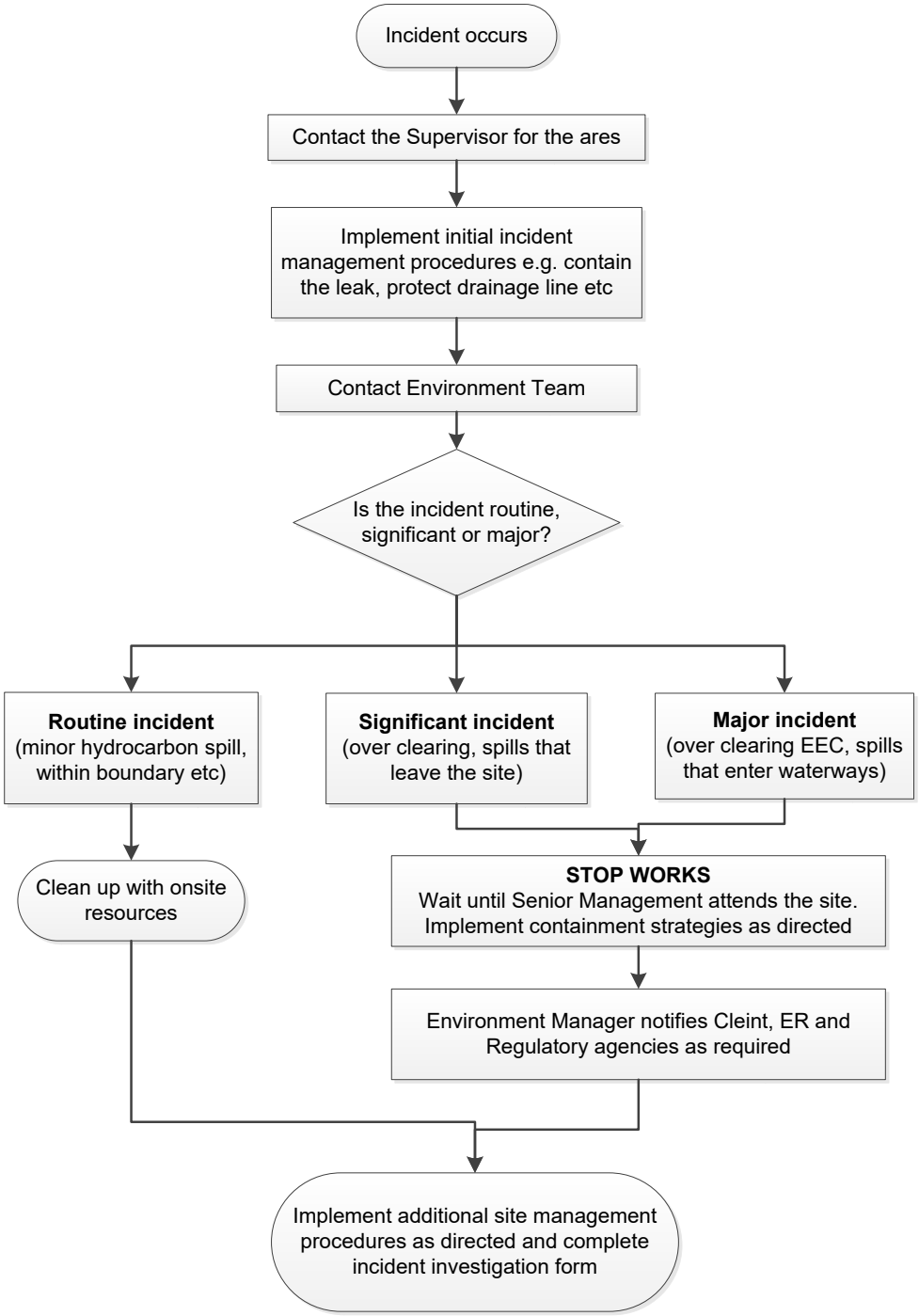

Figure 3 Incident Management and Emergency Response Procedure

5.3 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/or the removal of sediment. Used spill kit materials should be disposed of in accordance with the EPA waste disposal guidelines and the Project Waste, Recycling and Spoil Management Plan. 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.

5.4 Incident Investigation

All incidents will be documented and action plans established to prevent a reoccurrence. All Class 1 and Class 2 Incidents will be investigated as per the Manage and Report SHE Incidents attached in **Appendix A.**

Where lessons are learnt from the investigation or current procedures are identified as being ineffective, the CEMP associated Sub Plans and Procedures will be revised to include the improved procedures or requirement. An environmental investigation includes the following basic elements:

- Identifying the cause, extent and responsibility of the incident
- Identifying and implementing the necessary corrective action
- Identifying the personnel responsible for carrying out the corrective action
- Implementing or modifying controls necessary to avoid a repeat occurrence of the incident
- Recording any changes in written procedures required
- Advising the environmental authority (i.e. EPA) if substantial pollution has occurred

All personnel are required to report all incidents or non-compliance/non-conformances, as it is regarded as a valuable method of addressing shortcomings in procedures, training or equipment, and is an opportunity for improvement.

6. Review and Training

6.1 Testing of the PIRMP

Table 11: Environment Protection Licence Information

	Date
EPL Anniversary Date	03/08/2020
PIRMP Review and Testing Date	By 1st August each calender year

The PIRMP will be updated according to the following:

- 12 months from the last update; or
- Within one month of a pollution incident; or
- As identified after testing of the Plan

Testing of the Plan will be integrated into other emergency and incident testing and training programs.

The PIRMP will be updated as needed after testing and review.

Records will be maintained as to the dates the PIRMP was tested and the name of staff members who conducted or participated in the testing

6.2 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. Testing of the plan every 12 months 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 PIRMP implementation and testing records.

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

- Fuel truck roll over near waterway
- Flood response
- Small spill response.

6.3 Induction and Training

All Systems Connect construction personnel with specific responsibilities under the plan will undergo training which includes:

- Awareness of the PIRMP
- Where this Plan can be accessed
- Pollution incident classification and reporting under this Plan
- Spill response actions under this Plan
- Other incident response actions under this plan
- Early warnings internally and to neighbours where appropriate
- Specific procedures in dealing with potentially pollution incidents e.g. pump out of sedimentation basins

6.4 Training of Emergency Response Personnel

The Project Director, in consultation with the SHEQ Manager, Environment & Sustainability Manager and the Site Superintendent, 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 in **Table 12.**

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 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:
  - Undertaken weekly and covers safety and environmental issues
    - It can also 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 12: Environment Incident Response Competencies

Position	Training Requirement					
	Incident Response	Storage and handling of Chemicals	Oil Spill Clean Up	Concrete Wash-down Management	Site flooding	Dealing with Media
Project Director	X				X	X
Site Superintendent and Supervisors	X	X	X	X	X	
SHEQ/Safety Manager	X	X	X		X	
Environment Manager	X	X	X	X	X	
Emergency Response Team	X	X	X	X	X	

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Appendices

Appendix A: Manage and Report SHE Incidents

Purpose

This procedure describes how to respond, classify and report Safety, Health and Environment (SHE) incidents on a project.

Procedure

Respond to Incident

Accountability: Worker

- Where safe to do so, take action to prevent further injury
- Give first aid to injured workers.
- Notify the Supervisor as soon as possible.
- Notify emergency service providers, if required.

Accountability: Supervisor

- Ensure the incident area is safe.
- Take all actions according to the Project Emergency Response Plan and/or administer any first aid if required
- Notify the Project Manager and Project SH Manager / Project Environment Manager as soon as possible.

Accountability: Project SH Manager / Project Environment Manager

- Confirm the Project Manager has been notified.
- If the incident appears to be a Class 1A, Class 1P or Notifiable Incident:
  - Advise the Supervisor to barricade the area and restrict access.
  - Contact Employee Assistance Program (EAP).
    - Determine if counselling is necessary and arrange if required, advise workers.
  - Advise the Supervisor to arrange drug and/or alcohol testing.
  - Obtain statements from witnesses to the incident.
  - Take measurements, photographs and/or videos.
  - Initiate medical assessment and treatment of injured workers.
  - Gather sufficient information to complete entry into Synergy.

Classify Incident

Accountability: Project Manager

- Classify the incident to determine the incident notification requirements
  - Refer to Knowledge: Synergy Event Classification Matrix
- If the incident is likely to be a Safety and Health Class 1P or an Environment Level 1 or 2:
  - Initial notification must be made to the BU SHEQ Manager within 2 hours; and
  - A Flash Report must be prepared and sent to the BU SHEQ Manager within 24 hours.

- Refer to Tool: SHE Flash Report

Accountability: BU SHEQ Manager

- After being notified of any incident that is likely to be a Safety and Health Class 1P or an Environment Level 1 or 2:
  - Notify the BU GM and the GM SHEQ immediately; and
  - As soon as it is received, send a copy of the Flash Report to the BU GM and GM SHEQ.

Determine Legal Professional Privilege Status
Accountability: Project Manager

- Consult the BU General Manager and General Manager SHEQ to determine if legal advice is required, if so:
  - Contact Legal Counsel, advise them of the incident and request that Legal Professional Privilege (LPP) be applied to the incident.

    Note: LPP must be sought and obtained for all Class 1A incidents.
  - Comply with the advice regarding external notification, recording and investigation requirements.

Notify Internal Stakeholders
Accountability: Responsible Manager

- Notify internal stakeholders within the required timeframe.
  - Refer to Knowledge: SHE Incident Notification Criteria

Commence Investigation
Accountability: Project Manager

- Commence incident investigation
  - Refer to Procedure: Investigate SHE Incidents

Note: Where an incident results in the activation of the Emergency Response Plan, a De-Brief must be conducted to evaluate the effectiveness of the emergency response. Records of that Debrief must be documented. Actions from the De-Brief must be tracked.

  - Refer to Procedure: Plan for Emergencies

Accountability: Operations Manager

- Consult with the BU General Manager to assess the need to deem the event as a crisis.
  - Refer to Procedure: Manage a Crisis

Notify External Organisations
Accountability: Project Manager (or Corporate Management)

- Determine if external notification is required upon confirmation of classification.
  - Refer to Knowledge: SHE Regulatory Notifications Guide
  - Refer to Knowledge: SHE Regulatory Notifications Guide NZ
  - Refer to Knowledge: SHE Incident Classification Criteria
- Advise the relevant BU SHEQ Manager, BU GM and the GM SHEQ if external notification is required be made tothe relevant Regulator (Work Health and Safety, Office

of the Federal Safety Commissioner, Environment Protection Agency or where applicable, the Office of the National Rail Safety Regulator) and follow directions.

Note: The Office of the National Rail Safety Regulator must be advised of all Category A and B Notifiable Incidentswhere CPB is the Accredited Rail Infrastructure Manager or Rolling Stock Operator.

  - Refer to Tool: OFSC Incident Report
  - Refer to Tool: ONRSR Notifiable Occurrences Notification Form

- Enter a copy of the external notification into Synergy

Appendix B: SHE Flash Report

SHE Flash Report

☐ **Class 1P** ☐ **Class 2A** ☐ **Other**

To be completed and disseminated within 2 hours of the incident occurring.

Date: **Approximate Time of Incident:** **Project:**

BRIEF DETAILS OF THE INCIDENT – FACTS ONLY, NO SPECULATION (APPLICABLE TO ALL INCIDENTS)	
Incident Description:	<Insert Photograph>
Location:	
Names of Employer/s of workers involved:	

IMMEDIATE ACTION TAKEN – (PROVIDE DETAILS OF ANY CORRECTIVE ACTIONS TAKEN AT THE TIME OF THIS REPORT)

Incident Type (more than one can be selected):

☐ Safety & Health ☐ Environment ☐ Rail Safety ☐ Property Damage ☐ Other

☐ Actual ☐ Potential

☐ LTI ☐ Spill ☐ Discharge ☐ Noise

Drug and Alcohol testing undertaken?	☐ Yes	☐ No
Breath tested returned	☐ Negative	☐ Non-Negative
Awaiting Arrival of tester	☐ Yes	☐ No

Incident Classification:	Actual:	Potential:

	Consequence Rating (Actual and Potential)		
	Class 1A	**Class 1P**	**Class 2A**
Safety	A Death or Permanent Disability	Had the hazard been fully realised the most probable outcome was death or permanent disability	A Medical Treatment, Restricted Work or Lost Time Injury
	Level 1/Potential Level 1		**Level 2/Potential Level 2**
Environment	Pollution or degradation which has high severity impacts on the community and/or environment and may have irreversible residual impacts.		Pollution or degradation which has moderate severity impacts on the community and/or environment (1 to 3 months duration) but is fully reversible with no residual impacts.

Name & phone number of person making this report:

Appendix C: Incident Investigation Report

Incident Investigation Report

1. Event Details

Synergy Reference No:	**Client Reference No:**
Project Name:	**Specific Area:**
Event Type: ☐ Safety and Health ☐ Environment ☐ Plant or Property Damage	**Event Date & Time: ___/___/___ ___:___ (24 hr)**
Is Investigation confidential? ☐Yes ☐ No *(This will limit the visibility on the database, to a pre-determined group of people)*	**Is this Investigation under Legal Privilege?** ☐Yes ☐ No *(This will limit the visibility on the database, to those managers who will be responsible for seeking and receiving legal advice in relation to this event.)*
Detailed Incident Description:	
Basic Cause:	
Investigator:	**Contact Phone Number:**
Investigation Team Members (If any):	

2. Classification Confirmation (Refer to Synergy Event Classification Matrix)

(Note): Both Actual and Potential consequences must be considered

☐	**Safety and Health**	☐	**Environment**	☐	**Plant or Property Damage**
☐	**Class 2A**	☐	**Class 2P**	☐	**Class 3A**
☐	**Class 3P**	☐	**Class 4P**	☐	**Class 5P**

3. Injury / Harm / Damage Confirmation (Refer to Appendix A)

Safety & Health	Incident Mechanism:	Injury Mechanism
	Bodily Location:	Injury Type:
	Side of Body: ☐ Left ☐ Right	
Environment	**Event Sub Type:** ☐ Environmental Harm ☐ Legal ☐ Community/Media ☐ Cost	
	Classification: ☐ Class 1 ☐ Class 2 ☐ Class 3	
	Estimate Damage/Repair Costs	**Offsite Impact?** Yes / No **Details:**
	Environment Category:	
	☐ WAT - Discharges to Surface Waters ☐ AIR – Dust, Odour ☐ NVL – Noise, Vibration & Light ☐ ASS – Acids Sulphates	☐ CON - Contamination to Land & Groundwater & Emissions ☐ RES – Use of Land, Water, Fuels and Energy

	(incl. overpressure) Soils ☐ HER- Aboriginal and European DMR – Dirt or Mud on Cultural Heritage Public Roads ☐ FLFA – Flora & Fauna report)	& other Resources ☐ ESC – Erosion & Sediment Controls ☐ ☐ WAS – Solid & Other Wastes ☐ MISC – No direct environmental impact (e.g. late
Plant / Property Damage	**Description of Damage:** **Financial Loss Description:** **Value of Financial Loss:** **Currency:** ☐ AUD ☐ NZD	

4. Organisational Factors / Root Cause Analysis (Refer to Appendix B)

Note: Where ever a Root Cause is identified below, it must be supported with a Recommendation and a Corrective Action

☐ Supervision or Leadership	☐ Incompatible Goals	☐ Passive Tolerance of Violations	☐ Work Procedures – Availability & Suitability	☐ Procedural Compliance
☐ Risk Management	☐ Task Planning	☐ SWMS – Not Completed	☐ SWMS – Inadequate	☐ Isolation/ Lock Out/ Tag Out
☐ Access Control	☐ Permit to Work – Availability & Suitability	☐ Contractor Management	☐ Emergency Planning or Preparedness	☐ Change Management
☐ Communication	☐ Hazard Recognition or Perception	☐ Operating Speed – Not Suited to Conditions	☐ Horseplay or Thrill Seeking	☐ Exceeding Operating Authority
☐ Psychological Stress	☐ Motivation or Attitude	☐ Fatigue – Shift Patterns or Overtime	☐ Fatigue – Other Factors	☐ Physical Capabilities
☐ Drugs or Alcohol	☐ Tools & Equipment – Condition or Availability	☐ Tools & Equipment Use – Error or Violation Equipment or Materials Handling Methods	☐ Abnormal Operational Situation or Condition	☐ PPE Suitability or Availability
☐ Weather Conditions	☐ Congestion/ Restriction or Access	☐ Workplace Conditions – e.g. Lighting or Noise	☐ Ventilation – Gas	☐ Chemical – Dangerous Goods or Hazardous Substances
☐ Housekeeping	☐ Wildlife	☐ Signage or Warning Signals	☐ Guards or Barriers	☐ Occupational Hygiene Practices

If the injury related to hands or fingers	**Were the right Gloves worn**	**Yes**	☐	**No**	☐	**What was the rating on the gloves worn?**	____ ____ ____ ____

5. Contributing Factors (Refer to ICAM Codes)

Factor Code	Description of Contributing Factor

6. Investigator Recommendations

7. Action Plan(s) (Add or delete Action Plan Details as req'd)

1. Action Plan Details

Action Title:	Synergy Reference Number:
Type of Action: ☐ Corrective ☐ Preventative	Priority: ☐ Low ☐ Medium ☐High
Assigned To: Assigned By: Due Date:	
Action Required:	

Hierarchy of Control: ☐ Elimination ☐ Isolation ☐ Substitution ☐ Engineering ☐ Administration ☐ PPE
If you have selected Administration or PPE – Explain why you chose this control:

2. Action Plan Details

Action Title:	Synergy Reference Number:
Type of Action: ☐ Corrective ☐ Preventative	Priority: ☐ Low ☐ Medium ☐High
Assigned To:	Assigned By:
Action Required:	

Hierarchy of Control: ☐ Elimination ☐ Isolation ☐ Substitution ☐ Engineering ☐ Administration ☐ PPE
If you have selected Administration or PPE – Explain why you chose this control:

3.	**Action Plan Details**
Action Title:	
Type of Action: ☐ Corrective ☐ Preventative	Priority: ☐ Low ☐ Medium ☐High
Assigned To:	Assigned By:
Action Required:	
Hierarchy of Control: ☐ Elimination ☐ Isolation ☐ Substitution ☐ Engineering ☐ Administration ☐ PPE If you have selected Administration or PPE – Explain why you chose this control:	

4.	**Action Plan Details**
Action Title:	
Type of Action: ☐ Corrective ☐ Preventative	Priority: ☐ Low ☐ Medium ☐High
Assigned To:	Assigned By:
Action Required:	
Hierarchy of Control: ☐ Elimination ☐ Isolation ☐ Substitution ☐ Engineering ☐ Administration ☐ PPE If you have selected Administration or PPE – Explain why you chose this control:	

8. Emergency Response (Complete if the Emergency Response Plan was activated)

Nominate which Emergency Action Plan was enacted as part of the Incident Management:

Was the Emergency Action Plan followed (Yes/No):

What were the lessons learnt as a result of activating the Emergency Action Plan

What Worked	**What Didn't**

Are there Corrective Actions that need to be taken (Yes / No):

8.1.	**Emergency Response Action Details (add more if required)**
Action Title:	
Type of Action: ☐ Corrective ☐ Preventative	Priority: ☐ Low ☐ Medium ☐High
Assigned To:	Assigned By:
Action Required:	

8.2. Emergency Response Action Details	
Action Title:	
Type of Action: ☐ Corrective ☐ Preventative	Priority: ☐ Low ☐ Medium ☐High
Assigned To:	Assigned By:
Action Required:	

9. Investigation Report Sign Off

Investigator Sign Off:

Name: (Printed) Contact Phone Number:

Signature: _____ Date: _____

Project Manager Sign Off:

Name: (Printed) Contact Phone Number:

Signature: _____ Date: _____

Note: This report must be uploaded into Synergy with the appropriate sign offs in Synergy. Sign off subsequent to the Project Manager must also be done in Synergy.

Appendix A

Incident Mechanism		
Working at Heights	Uncontrolled Fire	Trespass or Vandalism
Slips & Trips Hazard	Uncontrolled Explosion	Communications System Failure
Falling or Flying Objects	Lifting Operations – Rigging Failure	Suicide – Attempted or Suspected
HV – HV Interaction	Lifting Operations – Crane or Lifting Device Failure	Terrorism or Sabotage
HV – LV Interaction	Manual Handling/Tasks	Physical Assault
Motor Vehicle Accident	Fitness for Duty	Use of Explosives
People & Plant Interaction	Vibration	Hot or Cold Surface / Materials
Mobile Plant Incident (Incl. Mechanical Failure)	Powered & Non Powered Hand Tools	Migrated/Not Applicable
Uncontrolled Release – Compressed air or gas	Fixed Plant or Machinery	Uncontrolled Release – Contaminated Waste
Uncontrolled Release – Hydraulics & Other High-Pressure Liquids	Contact with underground or Overhead Services	Uncontrolled Release – Solids (Incl. Dust)
Uncontrolled release – Chemicals incl. Gas & Hydrocarbons	Slips of Ground or Cave In	Ground Disturbance
Uncontrolled Release – Mechanical Energy	Structural/Mechanical Failure incl. Temporary Works	Unapproved Clearing
Uncontrolled Release – Electrical Energy	Physical Work Environment	Uncontrolled release of water / sediment

Noise / Vibration exceedance		

Injury Mechanism		
Awkward Posture	Contact with Electricity	Contact or Exposure to Biological Factors
Whole Body Jolts & Jars	Drowning or Asphyxiation	Exposure to Pressure Variations incl. Explosions
Struck by Moving Object	Exposure to Sudden Sharp Sound	Long Term Exposure to a Chemical or Substance
Psychological Factors	Falls on Same Level incl. Slips & Trips	Repetitive Movement – Low Muscle Loading
Fall from Heights	Crushed or Caught Between	Muscular Stress – Sustained or High Force
Migrated / Not Applicable	Exposure to Ionising Radiation	Single Contact with a Chemical or Substance
Exposure to Heat or Cold	Exposure to Mechanical Vibration	Insect/Spider/Animal Bite or Sting
Long Term Exposure to Sound	Exposure to Non-Ionising Radiation	Other

Body Location			
Skull	Pelvis	Abdomen	Multiple Leg Locations
Face	Back	Whole Body	Multiple Foot Locations
Eye(s)	Toes	Lower Leg	Multiple Whole Body Locations
Ear(s)	Shoulder	Ankle	Multiple Head Locations
Nose	Upper Arm	Hip	Multiple Hand Locations
Teeth	Forearm	Knee	Multiple Arm Locations
Neck	Elbow	Thigh	Multiple Trunk Locations
Ribs	Wrist	Internal Organs	Multiple Internal Organs
Chest	Finger(s)	Foot	

Injury Type			
Amputation	Fracture	Electric Shock	Contusion or Crushing
Bite or Sting	Internal Injuries	Dislocation	Exposure to Heat or Cold
Burn or Scold	Loss of Hearing	Foreign Body	Sprain / Strain
Concussion	Bruise or Abrasion	Laceration / Open Wound	Loss of Sight

Fixed Plant			
Conveyor	Compactor	Compressor	Concrete Boom Lines
Screen	Fuel Tanks	Landing/Loading Platforms	Pump
Trommel	Thermal Plant	Other	

Mobile Plant			
Brick Conveyor	Scraper	Bus (Personnel Carrier)	Crane Truck
Dozer	Water Cart	Drills/Augers/Piling Rigs	Elevated Work Platform
Excavator	Forklift	Generator/Lighting Plant /Transformer	Grader
Hoist (Personnel & Materials)	Light Vehicle	Loader	Loadshifting
Mobile Crib Hut	Pumps	Rear Dump Truck	Roller
Tractor	Service Truck	Tanker Truck	Telehandler
Visual Display Units (VDU)	Trailer	Tray Truck	Other

Infrastructure			
Buildings & Offices	Dams	Furniture & Fittings	Power Poles/Lines
Processing Plant	Property	Public Amenity – Power Poles/Lines	Public Amenity – Public Building
Public Property/Building	Storage Facilities	Roads	Services
Workshops	Other		

Appendix B: PEEPO Chart

Type	Guide	Response
PEOPLE	*Identify the relevant people directly or indirectly involved with the incident*	●
	Statements from involved person or witnesses	●
	Subject matter experts to establish: • *correct method of work* • *workings of the plant and/or equipment* • *other technical knowledge that has relevance*	●
	Task being conducted	●
	Relevant training and competency records for person(s) involved.	●
	Physical/emotional/mental capabilities of involved person(s)	●
	Other	●
ENVIRONMENT	*Location of incident*	●
	Conditions *i.e. Lighting, visibility, weather conditions, dust, noise)*	●
	Tasks performed in the vicinity	●
	Environmental conditions prior to event	●
EQUIPMENT	*What equipment?*	●
	Correct equipment/tools used	●
	Equipment/tools in good condition	●
	Any modifications or deviation from specification	●
	Used within safe operating parameters	●
	Calibration – completed + Records	●
PROCEDURES	*Work instructions / Procedures for task*	●
	Inspection records	●
	Maintenance/Service Records	●
	Risk assessment tool (SWMS/Take 5)	●
	Documentation / records complete	●
ORGANISATION	*Design*	●
	Hazard ID/Risk Assessment & Control	●
	Training - Quality of training methods / material	●
	Reviews conducted on procedures	●

	Visible leadership/supervision	●
	Communication/consultation with personnel	●

Appendix D: Maps

Please see EPL Premises Maps at:

https://cimicdigital-cdn.azureedge.net/-/media/projects/cimic/cpb/pdfs/environmental-materials/systems-connect-line-wide-works/licences/surface-epl-premises-maps---rev50.pdf?la=en

https://cimicdigital-cdn.azureedge.net/-/media/projects/cimic/cpb/pdfs/environmental-materials/systems-connect-line-wide-works/licences/subsurface-epl-premises-maps---rev50.pdf?la=en