



Pollution Incident Response Management Plan

for

Heathcote Road Upgrade

Client Reference: 18.000030642.1216

Ertech Contract No: 15777

Authorisation and Control

The Pollution Incident Response Management Plan (PIRMP) is authorised internally by the Project Manager and accepted by TfNSW's Representative prior to implementation.

Revision

This PIRMP shall be reviewed at least six (6) monthly and approved by the Project Manager, with all updates communicated to workers as required. The Project Manager shall ensure the AMP remains controlled and up to date.

Project Document Revision History

Rev No.	Rev. Date	Sections Revised	Revision Description	Prepared by	Checked by	Approved by
A	20/12/2021	All	Initial Draft for review	PG	SC	FT
B	01/02/2022	Various	TfNSW Comments (Round 1)	PG	SC	FT
C	17/02/2022	Section 7.3 & 8.4	TfNSW Comments (Round 2)	PG	SC	FT
1	12/06/2023	All	Annual Review Process	NG	RE	FT

Glossary / Abbreviations

Abbreviations	Expanded text
CEMP	Construction Environmental Management Plan
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
POEO Act	Protection of the Environment Operations Act 1997
REF	Review of Environment Factors
TfNSW	Transport for New South Wales
PIRMP	Pollution Incident Response Management Plan

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1 Introduction

1.1 Context

This Pollution Incident Response Management Plan (PIRMP) forms part of the Construction Environmental Management Plan (CEMP) for the Heathcote Road Upgrade (the Project).

This PIRMP has been prepared to address the requirements of the Heathcote Road Upgrade. Following documents were reviewed prior to preparation PIRMP:

- Review of Environmental Factors (REF) and addendums Utility Bridge Nov 2021 & site compound AREF Aug 2022.
- TfNSW specifications G36 – Environmental Protection
- TfNSW specifications G38 – Soil and Water Management
- TfNSW specifications G40 – Clearing & Grubbing
- Environment Protection Licence - 21505

1.2 Background and Project Description

Transport for NSW (TfNSW) is upgrading a 2.2-kilometre section of Heathcote Road from two lanes to four lanes between Infantry Parade at Holsworthy and The Avenue at Voyager Point. Heathcote Road is a major arterial road in the Liverpool Local Government Area (LGA) south-west of Sydney. It connects Newbridge Road at Liverpool with the Princes Highway at Heathcote. The road passes through undeveloped bush land that comprises both National Park and Commonwealth land, transitioning to suburban environment at Holsworthy.

The key features of the proposal listed below:

- Widening the existing two-lane road to a four-lane divided road over a distance of about two kilometres
- Duplicating three existing road bridges over Harris Creek, Williams Creek and the T2 Airport Railway Line
- Replacing two existing road bridges over Harris Creek and Williams Creek
- Partially removing the existing pedestrian bridge over Harris Creek
- Building a new combined footpath and cycleway (called a shared use path) along the majority of Heathcote Road that is being widened
- Converting the existing roundabout at Macarthur Drive to a four-way signalised intersection
- Installing traffic lights at The Avenue and Heathcote Road intersection
- Ancillary work to facilitate construction of the proposal including, but not limited to, temporary construction facilities, for example compound and stockpile sites, relocating utilities, installing storm water drainage systems, street lighting, road signage, landscaping, safety barriers and communications infrastructure

1.3 Environmental Management Systems Overview

Ertech is committed to providing services that conform to contractual, regulatory and Company requirements. To achieve this, the Project shall plan, implement and control construction activities in accordance with Ertech’s ISO 14001:2015 accredited Environmental Management System (EMS).

The CEMP and sub plans, including this PIRMP, form the construction environmental management framework and are consistent with Ertech’s EMS. The EMS is fully integrated into the Company’s Business Management System (BMS) and is available to employees via the Intranet and provides documented policies, procedures and instruments identified throughout the CEMP and associated documentation.

Copies of the EMS shall be made available to workers, the supply chain, Client and other interested parties where relevant / upon request. All sub-contractors engaged by Ertech will be required to work under Ertech's EMS and the construction environment management documentation, including this plan.

2 Purpose and Objectives

2.1 Purpose

The purpose of this PIRMP is to describe how Ertech and their subcontractors propose to manage potential environmental incidents, including accidental spills and the subsequent emergency response, during construction of the Project.

2.2 Objectives

The key objective of the PIRMP is to detail the actions required during and following the pollution incident to minimise the impact on environment. To achieve this objective, Ertech will undertake the following:

- Ensure comprehensive and timely communication about an incident to staff, the Environment Protection Authority (EPA) and other relevant authorities who may potentially be affected by the impacts of a pollution incident
- Ensure appropriate controls and procedures are implemented during construction activities to avoid or minimise spill impacts and potential adverse impacts to sensitive receivers, their management, clean up procedures and reporting
- Ensure appropriate measures are implemented to minimise impacts due to spills and address the requirements of the standard specification G36 – Environmental Protection (specifically Section 4.3 “Spill Prevention and Response”)
- Ensure site workers understand the immediate environmental incident reporting requirements, including statutory requirements to report certain environmental incidents to regulators and other relevant government agencies
- Ensure incidents are reported to enable monitoring, sharing of lessons learnt and response to emerging environmental incident trends.

2.3 Targets

The PIRMP includes the activities that occur on the Project as defined by the EPL that are under the direct control of the project and its subcontractors.

The PIRMP does not include any activities that occur off the premises, for example transportation of bulk fuel or hazardous waste by a contractor licensed by the EPA, unless the transportation activity is being undertaken on the premises under the control of Ertech.

The PIRMP is divided into a number of key components including:

- **Potential Pollutants:** A list of the potential pollutants stored or contained on the Project. This includes fuels, chemicals and other materials both natural and artificial.
- **Risk assessment tools:** The risk assessment provides a tool for the assessment of potential hazards on the Project and the potential risks to the environment if an incident were to occur. It also provides a process for the identification of any areas where the management controls are not sufficient to address the identified risk. The risk assessment takes into account :
 - The location of the hazard and its proximity to sensitive receivers,
 - The volume of the hazard (if applicable) at that location,
 - The type of hazard, and
 - Its potential consequence on the receiving environment.
- **Implementation:** How the PIRMP is activated and implemented for the Project.
- **Notification process:** The notification process for incident response if an incident were to occur for,
 - The community and sensitive receivers; and
 - Appropriate regulatory authorities and emergency services.

- **Staff training:** What the objectives of the training program are and who the PIRMP applies to at the Project.
- **Review process:** The testing and review process for the implementation of the PIRMP includes the process for the review of the plan for incident response and the processes under the plan and its effectiveness and useability in the event of an incident.

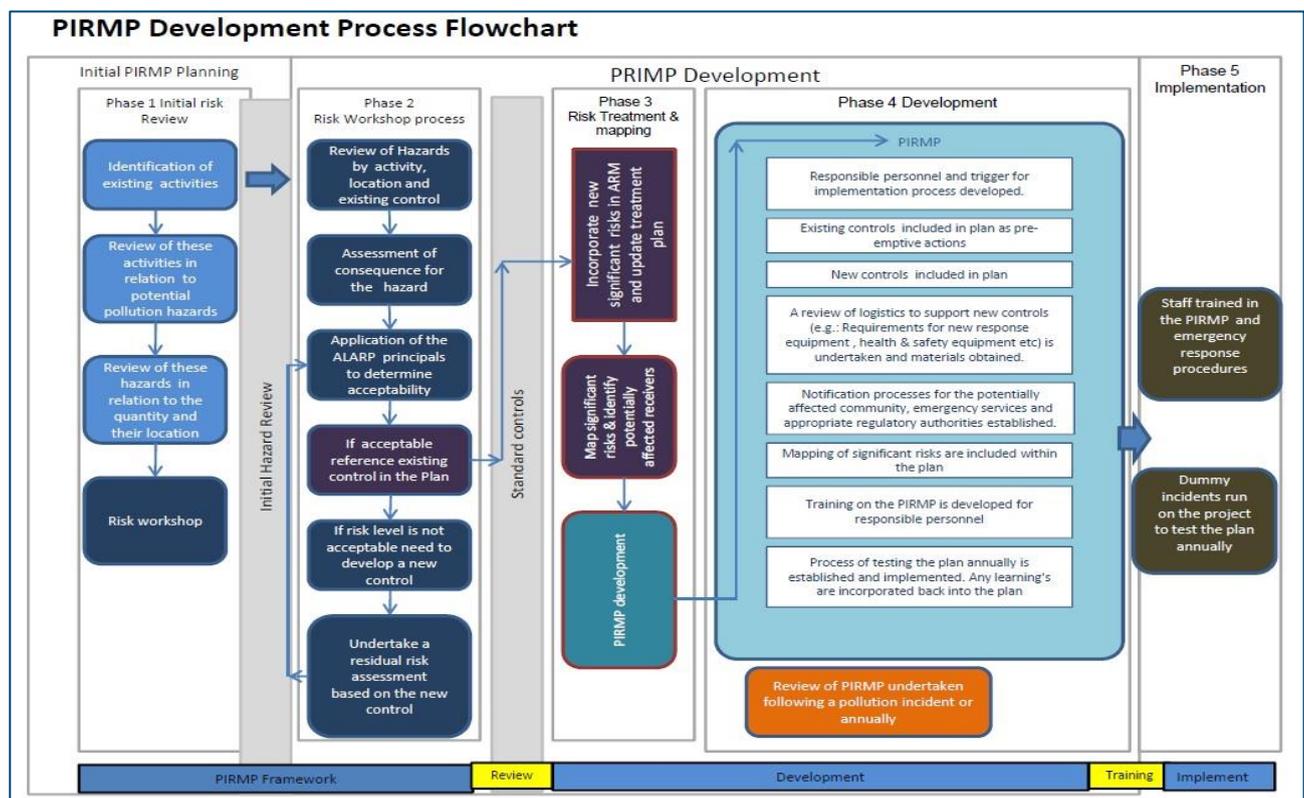
2.4 PIRMP Framework

The framework for the PIRMP has been developed based on a risk assessment approach consistent with Australian Standard AS4360. To facilitate the risk assessment a review of the existing controls for the Project has been undertaken. This review included a review of existing processes under:

- The Construction Environmental Management Plan (CEMP);
- Environment and Pollution Incident Response and Notification Management Procedure; and
- Safety and Health Management Plan.

The processes and procedures under these plans and the procedures provide a baseline on which to assess pollution hazards on the Project.

The framework of the PIRMP is consistent with the *Pollution Incident Reduction Management Plan Guideline* developed by the EPA. The process for the development and implementation of the PIRMP is provided below



3 Environmental Requirements

3.1 Relevant Legislation and Guidelines

3.1.1 Legislation

Legislation relevant to the management of potential spills and development of this PIRMP includes:

- *Environmental Planning and Assessment Act 1979 (EP&A Act).*
- *Protection of the Environment Operations Act 1997 (POEO Act)*

- *Waste Avoidance and Resource Recovery Act 2001*
- *Work Health and Safety Act 2011*
- *Contaminated Land Management Act 1997*
- *Environmentally Hazardous Chemicals Act, 1985*

Relevant provisions of the above legislation are explained in the register of legal and other requirements included in Appendix A1 of the CEMP.

3.1.2 Guidelines and Standards

The main guidelines, specifications and policy documents relevant to this Plan include:

EPA Bunding and Spill Management Guidelines contained within EPA Environmental Protection Manual for Authorised Officers

- AS 1940-1997: The storage and handling of flammable and combustible liquids
- TfNSW Code of Practice for Water Management
- TfNSW Incident Classification and Reporting Procedure
- Protection of the Environment Operations (Waste) Regulation 2005.
- Environmental Protection Licence - 21505

3.2 Mitigation Measures and Approval Requirements

The REF safeguards relevant to this Plan are listed in Table 3-1 below. A cross reference is also included to indicate where the requirement is addressed in this Plan of other Project management documents.

Reference number	Requirement	Document Reference
GEN3	All construction staff would undergo an induction detailing the Pollution Incident Response Management Plan measures and site requirements detailed in this PIRMP.	Induction Manual
G36 4.3	A site-specific emergency spill plan will be developed which will include spill management measures in accordance with the <i>Roads and Maritime Code of Practice for Water Management</i> (RTA, 1999) and relevant EPA guidelines. The plan will address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Transport for NSW and EPA officers).	This Plan

Table 3-1 REF Safeguards Relevant to PIRMP

4 Environmental Aspects and Impacts

4.1 Construction Activities

An environmental risk assessment workshop was undertaken as part of the development of the CEMP for the Project. This workshop assessed all Project activities and identified relevant environmental aspects of those activities and their potential impacts. Construction activities involving the use and storage of fuels, oils and other hazardous chemicals were assessed as having greater potential environmental impact and are relevant to this PIRMP. These include:

- Site establishment
- Road Construction
- Drainage line installation
- Roundabout deconstruction and light installation
- Refuelling of plant and equipment
- Maintenance and cleaning of plant and equipment

The following potential environmental impacts are relevant to this PIRMP and require mitigation:

- Soil contamination

- Pollution or contamination of waterways
- Impact to flora / fauna
- Contamination of ground
- Disturbance to the local community

5 Environmental Incident Prevention

A range of environmental mitigation and management measures shall be implemented across the project to prevent environmental incidents or pollution events. These are in accordance with the project CEMP and associated environmental management sub-plans. Specific actions and controls will be implemented to prevent environmental incidents as outlined in this section.

5.1 Environmental Risk Assessment Process

All construction activities involving the use and storage of fuels and those having greater potential environmental impact shall be conducted under an Environmental Work Method Statement (EWMS). The EWMS is a risk assessment process which outlines the potential hazards associated with the work steps and the necessary mitigation measures required to reduce the hazard risk. The EWMS also includes the procedure / methodology for the activity.

5.2 Storage and Handling of Hazardous Substances

The Project will ensure that all hazardous substances including fuels, chemicals and liquids are stored in impervious bunded structures in accordance with the manufacturer's instructions and the SDS. All site storage and site buildings will be ensured to meet building and safety design specification as per Clause 3 of G4 TfNSW specification.

Bunded areas will be covered or have a roof to reduce ingress of rain water. Bunded areas will be checked during the post-rainfall inspection and ensure any rainwater collected in bunded areas is regularly removed to retain capacity in the bunded area. Where possible, appropriately sized self- bunded portable containers will be used.

The bunded area must be able to contain 120% of the total volume of the largest single stored volume within the bund. All bunded areas will be constructed in accordance with:

- AS 1940-1997: The storage and handling of flammable and combustible liquids

Bunded chemical storage areas will not be located within 50 metres of any aquatic habitat, natural or built drainage lines.

The chemical, fuel and lubricant storage area will be situated within the site compound areas in a self-bunded hazardous material chemical container. Only the minimum amount of plant, equipment and materials required will be stored at each compound.

5.2.1 Spill Kits

Appropriate spill kits will be located at both sites and compounds where there is a risk of a spill (different types of spill kits are available for different pollutants). Typical spill kit materials and their application are provided in Table 6-2 below.

Spill kits will also be readily available nearby if drums of chemicals and fuels need to be used outside a bunded area and an emergency spill kit including a marine spill kit will be kept on site at all times

Site training will include details on the location and use of spill kits and their component materials to contain and clean up any potential spills and safely dispose of spill containment waste.

Construction works near creeks will be equipped with speciality equipment for dealing with spill containment in water, including floating booms, and will be identifiable due to their blue colouring, opposed to the normal yellow spill kits. Spill kits will be monitored as part of regular inspections and will be replenished as required.

Material	Application
Booms	Deploy booms first to contain spill. Floating booms to be used for spills in waterways to prevent spreading.
Granules / Particulate	Reduce the size of the spill by gently pushing the booms towards the centre of the spill.
Pillows	If the booms alone cannot absorb the spill/ leak, then use absorbent granules to soak up spilled liquid.
Pads	Cushion shaped products containing absorbent fibres, used directly under a leak or drip.
Skimmers	Best for thickly spread liquids.
Sorbents	Reduce the size of the spill/ leak by gently pushing the pads towards the centre of the spill.
Manual Recovery	Best for thinly spread liquids.

Table 5-1 Spill Kit Materials

Ertech’ HSE Advisor will conduct a safety inspection upon establishment of site ancillary facilities. A dedicated spill kit will be allocated to each spill risk area and maintained throughout the construction work. The spill kit will be appropriately sized for the volume of substances at the work site.

Personal protective equipment (PPE) suitable for handling and using chemicals on the Project are stored at the site compounds along with the relevant MSDS information for each chemical to be stored on the Project site. Equipment stored and available for use in the handling of chemicals includes;

- Rubber gloves;
- Rubber boots;
- Eye goggles;
- Tyvek suits;
- Breathing apparatus;
- Fire extinguishers; and
- Fire hoses.

The PPE and equipment required for handling each individual chemical can be found on the specific MSDS for that chemical

5.2.2 Fire extinguishers

Various fire extinguishers are to be located onsite, including at the site compounds and within all Ertech site vehicles.

Site training will include details of the location and use of fire extinguishers as well as any other fire protection equipment eg: blankets and protective gear.

5.3 Maintenance of Plant/ Equipment

Maintenance of plant and equipment or any other activities which may result in spillage of hydrocarbons or other chemicals including, grease, oil, radiator coolants etc on any location will not be undertaken where there is direct drainage to a waterway or environmental sensitive areas without appropriate temporary bunding being provided.

All plant and equipment will be inspected daily for leakages of fuel, oil or hydraulic fluid. Any leaks will be repaired before using the item of plant or equipment. Records of plant inspections will be maintained.

Maintenance and cleaning of plant and equipment will be done within the allocated site compounds only. If possible, maintenance and cleaning will be undertaken offsite. If undertaken onsite, the following controls will be put in place for this activity:

- Washdown works in banded areas
- Installation of shade cloth/geofabric controls to filter water during cleaning of plant and equipment.

Any spills will be cleaned up immediately, with reference to the quick reference Spill Response Procedure in Appendix A.

When working within or near waterways:

- Hydraulic lines will be double sheathed, inspected as part of the pre-start check and have a spill containment system to manage oil spills from hose leaks or bursts
- Oils and hydraulic fluids utilised in plant and equipment will contain biodegradable oils (such as Panolin) or similar.

5.3.1 Refuelling of Plant/ Equipment

Refuelling of plant and equipment will not be undertaken where there is direct drainage to a waterway or environmental sensitive areas without appropriate temporary bunding being provided. No refuelling will be undertaken over water.

Wherever possible, refuelling will be undertaken offsite. Refuelling operations on site will not be left unattended and will occur in impervious double bunded areas within the compound areas wherever possible. A hardstand refuelling area will be established within the compound area and will be signposted and bunded with a hydrocarbon spill kit adjacent to the location. Where refuelling cannot occur within the designated bunded area, it will be undertaken at least 50m from a waterway or drainage line and will utilise portable bunds / drip trays during refuelling operations.

Any spills will be cleaned up in accordance with Section 6 below.

5.3.2 Hazardous substances Disposal

The following disposal procedures are to be followed for the Project:

- Excess chemicals and water used for washing down equipment will be removed and disposed by the supervisor or waste removal subcontractors.
- PPE is to be worn by persons undertaking collection and disposal. Applicable PPE in accordance with the SDS of the spilled material/ waste.
- Booms, pads, pillows, gloves and absorbent granules to be placed in waste bag supplied in spill kit. These are then to be disposed of as contaminated waste.
- Spilled liquid waste to be placed into a labelled sealed container. The container is to comply with Australian/ New Zealand Standards.

6 Environmental Incident Classification

Environmental Incidents on the Project will be classified as defined in the *TfNSW Environmental Incident Classification and Reporting Procedure*. There are three categories of environmental incidents, in addition to commencement of regulatory action. These are defined in Table 6-4.

An environmental incident which is considered a Category 1 will be deemed a 'Pollution Incident' as per this PIRMP - if it causes or threatens to cause, *material environmental harm* as per the *Protection of the POEO Act 1997*. Details for responding to a Pollution Incident are included in Section 7 of this PIRMP.

Classification	Incident Description
Category 1	<ul style="list-style-type: none"> • Potential breaches of legislation or failures of process that result in actual of f site environmental harm, or residual onsite environmental harm; or • Works undertaken outside approved areas, without required approval or without environmental assessment; or • Any actual or potential Material Environmental Harm (Pollution) as defined in the Protection of the Environment Operations Act 1997 (POEO Act) - Refer to Section 7 of this PIRMP

Classification	Incident Description
Category 2	<ul style="list-style-type: none"> Failures of process or events that do not 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.
Reportable Event	<ul style="list-style-type: none"> An event or unexpected finding that occurs outside the scope of reasonable environmental controls and mitigation measures
Regulatory Action	<ul style="list-style-type: none"> Formal regulatory action from an environmental regulator (that has not already been reported in conjunction with another incident)

Table 6-1 Categories of environmental incidents

An Environmental Incident Report Form should be completed for all incident categories. Please refer to the procedure for detailed response actions.

6.1 Environmental Spill Response

The sequence of response actions that will be implemented in the event of a spill are detailed in Table 6-1 below.

Incidents are to be managed in accordance with this Plan, the CEMP and *TfNSW Environmental Incident and Reporting Procedure*. Any spill investigation will include a review of the events leading up to the incident and implement improved practices as required, with findings reported to TfNSW and EPA as required.

Corrective actions may include monitoring groundwater and/ or nearby surface waters for possible contamination.

Step	Area	Action
1	Safety and detection	<ul style="list-style-type: none"> Assess safety of situation for yourself and others If you cannot identify the substance, evacuate immediately and follow Step 4 If there is a risk of fire or explosion, evacuate immediately and follow Step 4 Shut off ignition source(s) if safe to do so
2	Trace source	<ul style="list-style-type: none"> Put on appropriate PPE Trace the source of the spill Determine if spill is continuing
3	Stop or control	<ul style="list-style-type: none"> Stop or control the leakage by shutting valves, plugging holes, moving mobile equipment – only if it is safe to do so
4	Emergency notification	<ul style="list-style-type: none"> Refer to the list of emergency and key contacts and in Section 7.4 for key contact details if required.
5	Secure area	<ul style="list-style-type: none"> Divert traffic and people away from the immediate area Evacuate if necessary
6	Contain	<ul style="list-style-type: none"> Contain the leakage using temporary bunds, booms etc
7	Recover product	<ul style="list-style-type: none"> Recover any free liquid into purpose-built tankers if possible Recover absorbent booms etc
8	Clean up	<ul style="list-style-type: none"> Clean-up the spill by pumping, absorbing, chemically treating Do not spread or dilute spills with degreasers, detergents or water
9	Dispose	<ul style="list-style-type: none"> Dispose of the spilled product in an environmentally responsible manner Used spill kit material is considered General Solid Waste (non-putrescible) in accordance with the NSW Waste Classification Guidelines therefore the material can be placed into general waste bins (seek advice from the ER for large quantities of material), There should be no free liquid in waste spill kit material Contaminated soil and liquids should be removed to an appropriate facility following consultation with the ER

Step	Area	Action
10	Report	<ul style="list-style-type: none"> Report the incident to your supervisor who will then notify the ER The ER is responsible for notifying the appropriate agencies and groups
11	Replace used equipment	<ul style="list-style-type: none"> Any equipment or materials consumed in the clean-up operation should be replaced as soon as possible
12	Monitor	<ul style="list-style-type: none"> Monitor the spill site to validate clean up and impact on the environment

Table 6-2 Spill Response Actions

6.2 Emissions including Air, Dust and Noise

Management and response to environmental incidents regarding dust, noise and odour will be dealt with in accordance with the EPL 21505.

Where an environmental incident relating to noise, dust or odour is considered a Pollution Incident, please refer to Section 8 of this PIRMP.

6.3 Wildlife Management

The Project is surrounded by sensitive vegetation including threatened ecological communities (TEC) listed under the *Biodiversity Conservation Act 2017*. Habitat associated with the neighbouring plant communities plays an important role for native species of birds, reptiles, amphibians and mammals including Koalas.

Interference with wildlife on the Project must be managed and reduced to prevent environmental incidents relating to native and introduced fauna. Environmental incidents involving wildlife will be managed in accordance with the Project Flora and Fauna Management Sub-Plan (FFMP).

The procedure outlined in the FFMP applies to all native and introduced species (domestic and pest) that are found on the Project site, including injured, shocked, juvenile and other animals. All fauna on site will be managed in accordance with Biodiversity Guidelines, Guide 9 (fauna handling) (Roads and Maritime, 2016b).

Handling and relocation of wildlife will be carried out by Project Environmental Representatives and/or Project ecologist.

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ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
ES1	<p>All staff will be made aware of this Plan and the Spill Response Procedure. A copy of the Spill Response Procedure will be displayed at the site compound, in each spill kit and in each field-services vehicle.</p> <p>All staff will be made aware of the location of emergency spill kits and will be trained in their use.</p>	<p>Spill Response Procedure</p> <p>Induction Manual</p>	Construction	<p>Environmental Representative</p> <p>Site Supervisor</p>	G36 4.3
ES2	<p>The location of bunded containers will be included on the ESCP. If required on-site, the chemicals will be transported to and from the compound site immediately. Drip trays will be used when chemicals are being used and decanted. Refer to Section 6.1 of this PIRMP for further details on chemical storage and use.</p> <p>All chemicals are stored in accordance with the manufacturer's instructions and the MSDS.</p>	ESCP MSDS	Construction	<p>Project Engineer</p> <p>Site Supervisor</p>	G36 4.3
ES3	<p>Any stored chemical, fuel and lubricants will be stored in self bunded hazardous material chemical containers at the site compounds. Only the minimum amount of plant, equipment and materials will be stored within the compound.</p> <p>All chemicals will be stored as far away from waterways as possible and correctly within an impervious double bunded area.</p>	This Plan ESCP	Construction	<p>Project Engineer</p> <p>Site Supervisor</p>	G36 4.3
ES4	<p>If drums of chemicals and fuels must be used outside a bunded area, a spill kit will be readily available nearby, unsealed drums will not be left unattended, and they will be returned to the bunded area for storage overnight.</p>	<p>Spill kit</p> <p>Environment Inspection Checklist</p>	Construction	<p>Project Engineer</p> <p>Site Supervisor</p>	G36 4.3
ES5	<p>Maintenance and cleaning of plant and equipment will be done within the allocated site compound areas only. The following controls will be put in place for this activity:</p> <ul style="list-style-type: none"> Washdown works in bunded areas Installation of shade cloth/ geofabric controls to filter water during cleaning of plant and equipment. Thinners, degreasers and other cleaning chemicals shall not be used onsite. <p>Further maintenance measures are detailed in Section 6.1.6 of this PIRMP.</p> <p>If possible, maintenance and cleaning will be undertaken offsite.</p>	<p>This Plan</p> <p>Environment Inspection Checklist</p>	Construction	<p>Project Engineer</p> <p>Site Supervisor</p>	G36 4.3
ES6	<p>Vehicles, equipment and plant must be frequently maintained and serviced and regularly inspected for fluid leaks.</p>	<p>Environment Inspection Checklist</p> <p>Plant maintenance Records</p>	Construction	<p>Project Engineer</p> <p>Site Supervisor</p>	G36 4.3
ES7	<p>Decanting operations for fuels and chemicals will take place within the designated bunded areas in the site compounds. The following environmental protection measures will be put in place for this activity:</p> <ul style="list-style-type: none"> Storage of chemicals fuel in hazardous material chemical containers 	<p>This Plan ESCP</p> <p>Spill kit</p>	Construction	<p>Project Engineer</p> <p>Site Supervisor</p>	G36 4.3

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ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
	<ul style="list-style-type: none"> No damaged drums to be accepted onsite Decanting in bunded areas only. Spill kit to be immediately available adjacent to bunded area. 				
ES8	Excess chemicals and water used for washing down equipment will be removed and disposed of to licenced waste disposal facilities. Further disposal measures are included in Section 6.1.7 of this PIRMP.	Environment Inspection Checklist Waste records	Construction	Site Supervisor	G36 4.3
ES9	Bunded areas used for spill containment and prevention will be inspected weekly. Bunded areas are to be covered to prevent the egress of rainwater.	Environment Inspection Checklist	Construction	Site Supervisor Environmental Representative	G36 4.3
ES10	Emergency spill kits including marine spill kit components are to be kept on site at all times and maintained throughout the construction work. The spill kit will be appropriately sized for the volume of substances at the work site. Adequate quantities of suitable material to counteract spillage will be kept readily available.	This Plan Spill Kit	Construction	Environmental Representative	G36 4.3
ES11	Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) is to be undertaken on a regular basis of creeks and other drainage lines to identify any potential issues, such as spills, contamination or excessive sedimentation.	Environment Inspection Checklist	Construction	Environmental Representative	G36 4.3
ES12	Refuelling of plant and equipment will occur on impervious double bunded areas on land. No refuelling will be undertaken over water. Refuelling will be undertaken as detailed in Section 6.1.5 of this PIRMP. Refuelling will always be attended.	Environment Inspection Checklist	Construction	Environmental Representative Site Supervisor	G36 4.3
ES13	Clean up all chemical spills immediately, with reference to the Spill Response Procedure and as detailed in Section 6.2 of this PIRMP. If an incident occurs, the TfNSW Environmental Incident Classification and Reporting Procedure is to be followed and the TfNSW Contract Manager is to be notified as soon as practicable.	Spill Response Procedure Environmental Incident Classification and Reporting Procedure	Construction	Environmental Representative Site Supervisor	G36 4.3
ES14	Quantities of hazardous materials must be kept to a minimum, commensurate with their usage and shelf life.	Environment Inspection Checklist	Construction	Environmental Representative Site Supervisor	G36 4.3

Table 6-3 Environmental Incident Response management and mitigation measures

7 Pollution Incident Response

7.1 PIRMP Activation

Where an environmental incident causes or threatens material environmental harm as described in Section 147 of the *Protection of the Environment Operations Act*, this PIRMP will be activated. The activation process will be triggered by the Ertech ESR, who will undertake measures to mitigate the risk and notify TfNSW ESR immediately.

In the event of an environmental pollution incident, this *PIRMP* and the *TfNSW Environmental incident classification and Reporting procedure* shall be followed, and notification to all relevant authorities will be made as outlines in this section.

The site supervisor in consultation with the ESR will take the lead on management of the pollution incident. The site supervisor will be supported by the site engineer and project manager who will make available the required resources to accomplish identified tasks. Resources may include labour, excavators or liquid waste vacuum trucks etc.

The ESR will lead an environmental incident investigation following the incident, to identify the root causes and preventative actions that can be implemented to ensure that the incident does not re-occur. This includes a post-incident debrief workshop, raising relevant corrective actions and assessing training needs/requirements to prevent re-occurrence. The site incident investigation procedure will be followed.

7.2 Notification to Authorities

A pollution incident is required to be notified to relevant agencies and authorities if there is risk of “material harm” to the environment’, which is defined in Section 147 of the POEO Act as:

- 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 another amount as is prescribed by the regulations), and*
- b) *Loss includes the reasonable costs and expenses that would be incurred in taking all the reasonable and practical measures to prevent, mitigate or make good harm to the environment*

7.2.1 EPA

All notification of environmental harm must comply with EPL Conditions. The written details of the notification to the EPA must be provided within 7 days of the days of the date on which the incident occurred as per EPL clause R2.

The circumstances where notification to the EPA will take place include:

- If the actual or potential harm to the health or safety of human beings or ecosystems is not trivial
- If actual or potential loss or property damage (including clean-up costs) associated with an environmental incident exceeds \$10,000.
- Table 6-2 Emergency Contacts

7.2.2 TfNSW

TfNSW are to be immediately notified verbally and in writing via an incident report (Form 624 and accompanying information) within 24 hours of any incident. Further details regarding the TfNSW incident classification, notification and reporting requirements are included in Appendix B.

7.2.3 Local Council

If pollution is known to occur on a land occupied by Liverpool City Council or Department of Defence, remediation approval will be acquired from authorities accordingly.

7.2.4 State Government

The DPE Environment Line Service must be notified by telephone, and the Greater Sydney Branch Director must be contacted for direction on further procedures to implement. Written details of the notification must be provided to DPE within 7 days of the date of the incident.

If an environmental incident occurs on Defence land it will be reported via –

- (i) the Department of Defence Garrison Estate Management System (GEMS) OR
- (ii) Via an offline form available for those who do not have GEMS access at the below mentioned link –
<https://www.defence.gov.au/estatemangement/lifecycle/IncidentManagement/Environment.asp>

7.3 Notification to Community

In the event of an environmental pollution incident, Community members will be notified by the relevant utility provider and/or emergency services if required.

For example, if an environmental pollution event impacts Sydney water potable water supply, it will be Sydney water that notifies impacted community and residents via their communication pathways. For air pollution incidents that may affect community members, relevant authorities including emergency services may direct impacted community members to close their doors and windows and stay indoors until further notice or to vacate the premises.

The Project Community Manager will work closely with TfNSW Community team and all relevant stakeholders to support the community notification process. Notification to residents may include Project issued communication methods such as doorknocking, letters, signs, notices, local papers, leaflets, etc. (minimum of letter box drop and a clearly visible sign on premises).

The community can contact the Project regarding any pollution incident via the Community Project Hotline and email listed in Section 7.4.

For matters relating to communication with media following a pollution incident, please refer to the *Ertech External Communications Policy*. Only the Project Manager or their delegate may release a public statement or provide information pertaining to the details of an incident to media or public forums.

7.4 Key Contacts

Name of Organisation	Details	Contact Details
NSW Rural Fire Service	Local Fire Control Centre (Liverpool LGA)	02 9603 7077
	Address	Cnr Alderney St and Townson Avenue Minto 2566
	Bushfire Information Line	1800 679 737 1800 NSW RFS
	Rural Fire Service headquarters	02 8741 5555
	Website	www.rfs.nsw.gov.au
Fire and Rescue Ambulance Service of NSW NSW Police Force	Fire and Rescue Ambulance Police Emergency Service General	000
	Website	Http://www.police.nsw.gov.au
NSW State Emergency Service	General enquiries	02 4251 6111
Liverpool City Council	Customer Contact Centre	1300 36 2170
	National Relay Service (NRS) for hearing and speech impaired customers	133 677

Name of Organisation	Details	Contact Details
	Address	Ground Floor, 33 Moore St, Liverpool NSW 2170
Liverpool Hospital	Contact	8783 3000
	Address	Corner of Elizabeth and Goulburn Streets, Liverpool, NSW 2170
Environment Protection Agency	Environment Line	131 555 (02) 9995 5555
Ministry of Health	Contact	(02) 9391 9000
SafeWork NSW	Contact	13 10 50
Site Contact	Principle Representative Ken Vo, Project Manager	0407 900 287
	Contractor's Project Manager Fraser Turnbull	0411 289 068
	Environmental Site Representative Natalia Gomez	0476 777 006
	Contractor's Community Liaison Manager Wendy Carlson	0414 301 699
	Contractor's Health and Safety Manager Rodney Errington	0428 018 108
	Contractor's Construction Supervisor Darren Sanders	0420 943 498
	Contractor's Senior Project Engineer Thong	0422 583 515
TfNSW Contact	TfNSW Environmental Site Representative Xi Lin	0447 639 146
	TfNSW Environmental Manager Alana Watts	0439 727 835
Ertech	Project Hotline Number	1800 749 119

Table 7-2 – Emergency Contacts

8 Compliance Management

8.1 Roles and Responsibilities

Project Team's organisational structure and overall roles and responsibilities in relation to this PIRMP are outlined below.

Roles	Responsibilities relevant to this PIRMP
Project Manager	<ul style="list-style-type: none"> Ensure the requirements of this PIRMP are fully implemented and resources are adequate to support this Liaise with TfNSW, government authorities and utility providers as required to manage and respond to a pollution incident Work with the Community Manager and Ertech executive team to lead and coordinate media comms and release of information to the public following an environmental pollution incident
Environment Site Representative	<ul style="list-style-type: none"> Initiate PIRMP Activation following an environmental incident if required Lead and coordinate environmental incident response process and investigation Work with the Project Manager and Community Manager to support incident management and response, including public comms Liaise with relevant regulators and authorities including the EPA as required for incident management Specific authority to stop work on any activity where it necessary to prevent environmental harm, incidents and/or nonconformities.

Roles	Responsibilities relevant to this PIRMP
Project Superintendent / Construction Manager	<ul style="list-style-type: none"> Identify resource needs for implementation of PIRMP requirements Communicate with all personnel and sub-contractors regarding compliance with this PIRMP Support the PM and ESR with the activation of this PIRMP in the event of an environmental pollution incident. Stop work immediately if an unacceptable impact on the environment is likely to occur.
Senior Project Engineer /Project Engineers	<ul style="list-style-type: none"> Communicate with all personnel and sub-contractors regarding compliance with this PIRMP Support the PM and ESR with the activation of this PIRMP in the event of an environmental pollution incident. Support the PM and ESR with the activation of this PIRMP in the event of an environmental pollution incident.
Site Personnel	<ul style="list-style-type: none"> Comply with the relevant requirements of this PIRMP, or other environmental management guidance, as instructed by a member of the Project's management team

Table 7-1 – Roles and responsibilities relevant to this Plan

8.2 Training

This PIRMP shall be communicated to personnel through the site induction, at toolbox and pre- start meetings and a copy of the will be maintained on site. Site specific incident and evacuation procedures will be displayed on noticeboards and in prominent positions throughout the site/ buildings and will include:

- Evacuation and emergency response muster points,
- Maps indicating the location of spill kits
- Spill response procedure and quick guide flow chart
- 24 hr project contacts, including for incident reporting

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in spill response, including the provision of specific requirements of this PIRMP. Site training will include details on the location and use of spill kits and their component materials to contain and clean up any potential spills and safely dispose of spill containment waste.

Further details regarding staff induction and training are outlined in Section 2.5 of the CEMP.

8.3 Monitoring and inspections

Requirements and responsibilities in relation to monitoring and inspections on the project are documented in Section 12 of the CEMP. The specific requirements for monitoring and inspections relevant to this PIRMP are included in Table 7-2 below.

Requirement	Frequency	Responsibility
Inspection of spill kits maintained onsite to ensure adequate spill kit materials are available for use.	Weekly	ESR
Inspection of bunding arrangements to ensure that no leaks are observed and bund capacities are maintained.	Weekly	ESR Site Supervisor
Monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) is to be undertaken on a regular basis of creeks and other drainage lines to identify any potential issues requiring investigation.	Weekly or daily if works are in close proximity to waterways	ESR
Water Quality monitoring requirement of discharge points for PFHxS, PFOS & PFOA as per EPL condition 3 & 5	As per SWMP	ESR
Water Quality monitoring requirement of discharge points for pH and Turbidity as per EPL condition 3 & 5	As per SWMP	Ertech Environment Representative

Requirement	Frequency	Responsibility
Monitoring of refuelling operations to ensure controls are in place and any leaks or spills are cleaned up.	During refuelling	Site Supervisor Project Engineer
Monitoring of chemical decanting operations to ensure controls are in place and any leaks or spills are cleaned up.	During chemical use/ decanting	Site Supervisor Project Engineer
Inspection of any spill response and clean up measures following a reported spill to ensure there is no residual contamination.	Following a spill	Ertech Environment Representative Site Supervisor

Table 7-3: Monitoring and inspections relevant to this PIRMP

8.4 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, and other relevant approvals, licenses and guidelines. This will include reference to the mitigation measures included in this PIRMP, as detailed in Table 6-1 or other sections of this plan, as assessed as relevant within the scope of the audit.

Audit requirements are detailed in the Project CEMP.

9 Review and Improvement

9.1 Continuous Improvement

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement

9.2 PIRMP Update and Amendment

The revision of PIRMP will occur as needed.

Only the ESR, or delegate, has the authority to change any of the environmental management documentation. Any revisions to the PIRMP will be in accordance with the process outlined in Section 11.2 of the CEMP.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to Section 11.3 of the CEMP.