



Transport
Roads & Maritime
Services

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

*The Northern Road Upgrade - Stage 3
North Project*


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Glossary / Abbreviations

ASS	Acid sulfate soils
CEMP	Construction Environmental Management Plan
Compliance audit	Verification of how implementation is proceeding with respect to a CEMP (which incorporates the relevant approval conditions).
DP&I	Department of Planning and Infrastructure
Ecological sustainable development	Using, conserving and enhancing the community's resources so that the ecological processes on which life depends are maintained and the total quality of life now and in the future, can be increased (Council of Australian Governments, 1992).
EPA	NSW Environment Protection Authority
ERG	Environmental Review Group – comprising representatives of RMS, Environmental Representative, Project delivery team, regulatory authorities (EPA, DP&I – Fisheries Conservation and Aquaculture, NOW) and councils (<i>Penrith City Council</i>). The ERG will be maintained for the duration of the Project and will meet regularly and undertake environmental inspections. The role the ERG is to provide proactive advice on environmental management issues and review the environmental performance of the Project.
EMS	Environmental management system
Environmental aspect	Defined by AS/NZS ISO 14001:2015 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2015 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental incident	An unexpected event that has, or has the potential to, cause harm to the environment and requires some action to minimise the impact or restore the environment.
Environmental objective	Defined by AS/NZS ISO 14001:2015 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental policy	Statement by an organisation of its intention and principles for environmental performance.
Environmental target	Defined by AS/NZS ISO 14001:2015 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan

ESR	Environmental Site Representative
EWMS	Environmental Work Method Statement
ISEPP	State environment planning policy (infrastructure)
Minister, the	Minister for Planning and Infrastructure
Non-compliance	Failure to comply with the requirements of the Project approval or any applicable license, permit or legal requirements.
Non-conformance	Failure to conform to the requirements of Project system documentation including this CEMP or supporting documentation.
NOW	NSW Office of Water
NPW Act	National Parks and Wildlife Act 1974
OEH	Office of Environment and Heritage
PESCP	Progressive Erosion and Sediment Control Plan
POEO Act	Protection of the Environmental Operations Act 1997
Project, the	Western Sydney Infrastructure Plan - The Northern Road Upgrade - Stage 3 North Project
RMS	Roads and Maritime Services
REF	Review of Environmental Factors

1 Introduction

1.1 Background

The Northern Road is located about 45 kilometres west of the Sydney central business district. It is a key north–south road between Narellan and Richmond, connecting the North West and South West Priority Land Release areas. The corridor intersects with a number of regional motorway, arterial and collector roads such as (from south to north) Camden Valley Way, Bringelly Road, Elizabeth Drive, M4 Western Motorway (from here referred to as the M4 Motorway), Great Western Highway and Richmond Road.

RMS is upgrading The Northern Road between Glenmore Parkway, Glenmore Park and Jamison Road, South Penrith (referred to as ‘the Project’ within this document) and known as The Northern Road Stage 3 North. The proposal will upgrade The Northern Road to an eight-lane divided road, with three general traffic lanes and a kerbside bus lane in each direction, separated by a raised concrete median. The Northern Road will be continued as a six lane carriageway north of Jamison Road.

RMS has engaged Lendlease to design and construct the Project. The Project has been assessed under part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) through the development of a Review of Environmental Factors Report (REF). This document was prepared and placed on public exhibition for 60 days between September and November 2016. RMS is the determining authority for the proposal. RMS has formed the view that the proposal is not likely to significantly affect the environment and would not require the preparation of an Environmental Impact Statement (EIS). This REF has been prepared as part of the assessment process.

1.2 Purpose of this CEMP

This Construction Environmental Management Plan (CEMP) and sub plans have been prepared to comply with the Environmental Safeguards listed within the REF for the Project and RMS D&C Specifications G10, G36, G38 and G40. It is also consistent with the Lendlease EMS (AS/NZS ISO 14001:2015).

The purpose of this CEMP is to provide a structured approach to the management of environmental issues during construction of the Project. Implementing this CEMP effectively will ensure that the Project team meets regulatory and policy requirements in a systematic manner and continually improves its performance. The CEMP ensures the requirements of RMS and the REF (see Appendix A1) are met.

In particular, this CEMP:

- Describes the Project in detail including activities to be undertaken and relative timing;
- Provides specific mitigation measures and controls that can be applied on-site to avoid or minimise negative environmental impacts;
- Provides specific mechanisms for compliance with applicable policies, approvals, licences, permits, consultation agreements and legislation;
- Describes the environmental management related roles and responsibilities of personnel;
- States objectives and targets for issues that are important to the environmental performance of the Project; and
- Outlines a monitoring regime to check the adequacy of controls as they are implemented during construction.

This CEMP meets the requirements of *REF Environmental Safeguard GEN1* and the requirements of *RMS D&C G36*, Table 1-1 identifies each requirement and where they are met within the CEMP and associated sub-plans.

Table 1-1 REF requirements for CEMP

Requirement	Reference
A CEMP will be prepared and submitted for review and endorsement of the RMS Environment Manager prior to commencement of the activity. As a minimum, the CEMP will address the following:	
• Any requirements associated with statutory approvals and applicable legislation	<i>Sect 3.2</i>
• Details of how the Project will implement the identified safeguards outlined in the REF	<i>Sect 4</i>
• Issue-specific environmental management sub-plans	<i>Sub – Plans</i>
• Resources, roles and responsibilities	<i>Sect 4.2</i>
• Communication requirements	<i>Sect 6</i>
• Induction and training requirements	<i>Sect 5</i>
• Procedures for monitoring and evaluating environmental performance, and for corrective action	<i>Sect 8</i>
• Reporting requirements and record-keeping	<i>Sect 10</i>
• Procedures for emergency and incident management	<i>Sect 7</i>
• Procedures for audit and review	<i>Sect 8.3</i>
• Procedures for out of hours notification to RMS	<i>App B3</i>
• Identification of two personnel that EPA can contact	<i>Contacts</i>
• Procedures for unexpected contamination finds	<i>App B8</i>
• Spill response procedure	<i>Sect 7</i>
• Sensitive Area Plans	<i>App A5</i>
• EWMS for working near sensitive areas	<i>Sect 4.1</i>
• Environmental objectives and targets	<i>Sect 3.6</i>
• Management of Subcontractors	<i>Sect 4.4</i>
• Working hours	<i>App B3</i>
• Contaminated Land Management	<i>App B8</i>
• Air Quality Management	<i>App B6</i>
• Noise and Vibration Management	<i>App B3</i>
• Biodiversity Management	<i>App B2</i>
• Aboriginal Heritage Management	<i>App B5</i>

Requirement

Reference

- Non-Aboriginal Heritage Management *App B5*
- Waste Management *App B7*

The endorsed CEMP will be implemented during the undertaking of the activity.

This CEMP is the overarching document in the environmental management system for the Project which includes a number of management documents. These are described in Section 4.1. It is applicable to all staff and sub-contractors associated with the construction of the Project.

1.3 Consultation

Formal consultation occurred between July and August 2015 to inform the community of the Preliminary Concept Design and Access Strategy for the upgrade of The Northern Road between Littlefields Road and Jamison Road, which included this Project.

The community was provided with information about the Preliminary Concept Design and Access Strategy, and invited to comment. Consultation involved a community update newsletter, print media advertising, a Project webpage and interactive portal, door knocking, one-on-one meetings with affected residents, and community information sessions. Community members were invited to provide written feedback on the proposal and all feedback was recorded by RMS, and considered in further development of the Preliminary Concept Design.

Penrith City Council was also consulted in accordance with the requirements of the Infrastructure State Environment Planning Policy (ISEPP). Consultation with the community will continue during the construction of this Project. Consultation requirements are outlined in the Community Involvement Plan.

1.4 Certification and approval

The Project Director and Environment Manager must approve this CEMP prior to submission to RMS. Submission to RMS is required no later than one month prior to commencement of construction or as otherwise agreed.

The CEMP must be approved by the RMS Environment Representative prior to the commencement of construction.

The sub-plans prepared also require approval by the RMS Environment Representative prior to commencement of construction with the exception of works defined as Enabling Works in Section 3.2.1 below. Further explanation and details of these documents are provided in Section 4.1.

1.5 Distribution

This CEMP is available to all personnel and sub-contractors via the Project document control management system. An electronic copy can be found on the Project website.

The document is uncontrolled when printed. One controlled hard copy of the CEMP and supporting documentation will be maintained by the Quality Manager at the Project office.

Registered copies will be distributed to the:

- Project Director;

- Construction Manager;
- Environment Manager / Environmental Site Representative;
- Community and Stakeholder Manager;
- RMS Project Manager; and
- RMS Environment Representative.

1.6 Revision

A document review process ensures that environmental documentation including this CEMP is updated as appropriate for the specific works that are occurring on-site. This includes the management review process described in Chapters 9 and 10. Should the document review process identify any issues or items within the documents that are either redundant or in need of updating, it is the responsibility of the Environmental Site Representative or Environmental Officer to prepare the revised documents.

The revised document will then be issued to the Project Manager and the RMS Environment Representative for certification of the changes.

Revised versions of the CEMP will be made available through the processes described in Section 1.5.

2 Project description

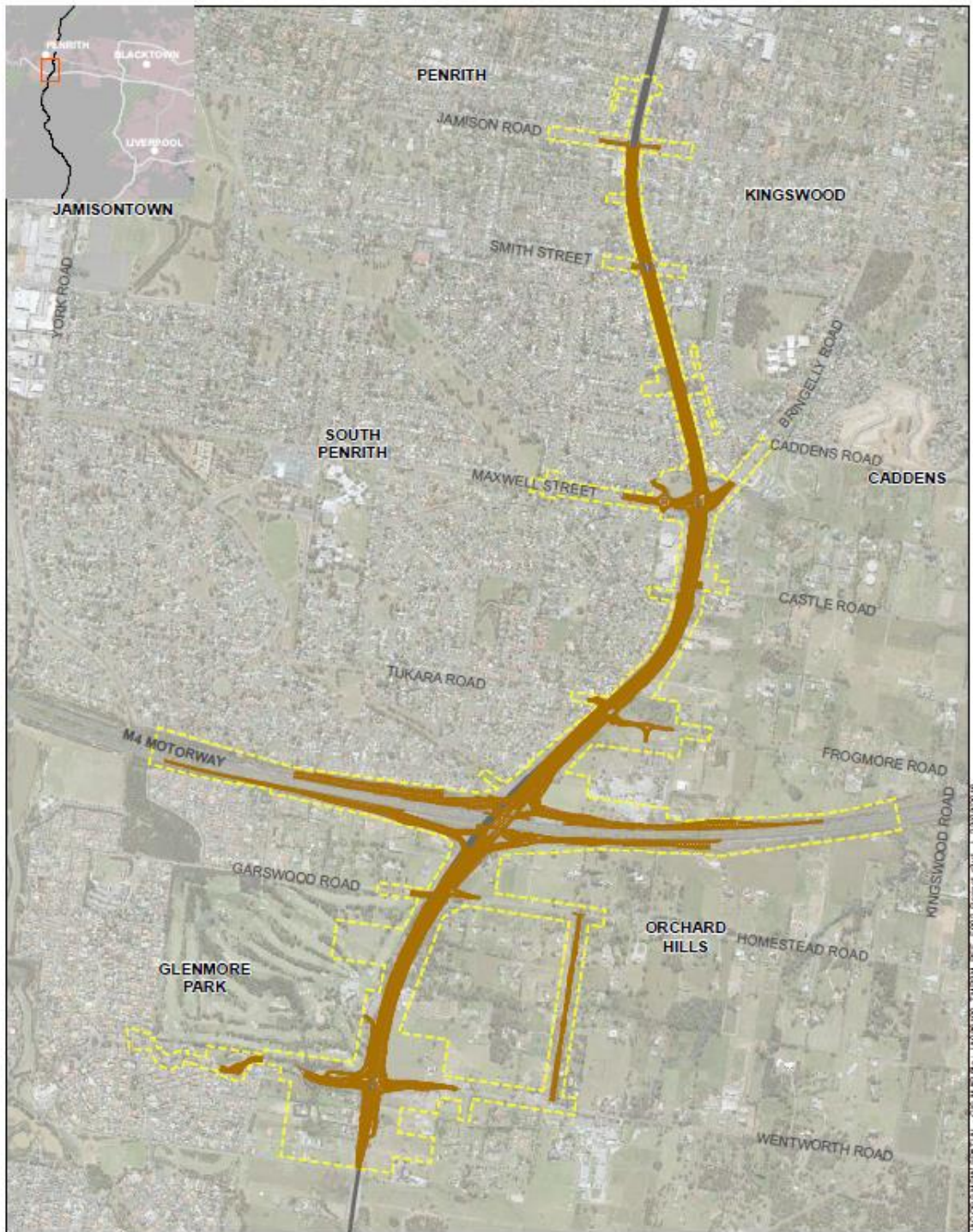
2.1 General features

The Project involves the upgrade a four-kilometre section of The Northern Road between Glenmore Parkway, Glenmore Park and Jamison Road, South Penrith including an upgrade of the M4 Western Motorway interchange, as shown in Figure 2-1 below.




2.2 Staging

The project will be constructed in three main stages:

- *Stage 1: From Jamison Road to Bringelly Road the kerbside two lanes will be constructed. From Bringelly Road to Glenmore Parkway the full southbound carriageway will be constructed. Works will commence on the construction of the new bridge over the M4. Program May 2017 to March 2018;*
- *Stage 2: From Jamison Road to Bringelly Road centre lanes and median will be constructed. From Bringelly Road to Glenmore Parkway the northbound carriageway will be constructed with traffic switched onto the existing bridge as the new M4 bridge is still being constructed. Program October 2017 to May 2018; and*
- *Stage 3: From Jamison Road to Glenmore Parkway traffic will be on the new southbound carriageway to enable completion of the northbound carriageway, demolition of the existing bridge over the M4 and tie in of the new M4 entry and exit ramps. Program May 2018 to December 2018.*



Legend

-  The Northern Road Upgrade between Glenmore Parkway and Jamison Road
-  Proposal area
-  The Northern Road (Existing)

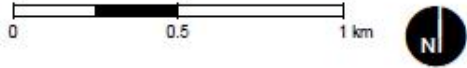


Figure 2-1 Location of the Project

2.3 Construction activities and sequence

Typically, the following sequences of activities are anticipated:

- Site establishment – installing boundary fencing, construction facilities, environmental controls and carrying out pre-clearing vegetation fauna surveys;
- Relocation or protection of services – relocating and protecting electricity, gas, water and telecommunications infrastructure affected by the Project;
- Site preparation – removal of harvestable timber, clearing and grubbing, topsoil stripping and storage;
- Earthworks – undertaking cut and fills works along the alignment to achieve desired levels, removal of unsuitable material, batter and embankment shaping;
- Structures – building bridges and drainage;
- Pavements – forming sub and base layers and construction final pavement finishes;
- Road furniture – installing signage, line marking, safety barriers and fauna overpass structures;
- Landscaping and restoration – reuse of topsoil, planting of native plants and seeding disturbed areas with native and cover crops species (note this will take place throughout construction as elements of the Project are complete where ongoing disturbance is not anticipated); and
- Open to traffic – decommission construction facilities and commissioning new road and related infrastructure.

2.3.1 Enabling Works

In order to facilitate an efficient design process and the development of aspect specific environmental management sub-plans, the following works will be undertaken prior to the approval of all CEMP Sub Plans through the implementation of an RMS approved activity specific Environmental Work Method Statement (EWMS):

- Service location (potholing, service locating);
- Geotech and contamination investigation;
- Environmental Assessments (Ecology, Heritage etc);
- Survey;
- Placement of temporary traffic barriers;
- Construction access establishment; and
- Establishment of Site Compounds.

As detailed within the Minor and Routine Works REF prepared in February 2017 these works will be undertaken prior to CEMP approval to the extent that they comply with the Minor Works REF and the *'Guideline on Licensing Triggers for construction early work'* (EPA NSW).

The EWMS's will include all relevant mitigation measures as detailed within the Environmental Safeguards of the Minor and Routine Works REF.

2.4 Compound and ancillary facilities

A number of temporary compound and ancillary facilities will be required to support construction of the Project. Primary site compounds will be established for each stage of the Project. These sites will accommodate the majority of management, engineering, specialist and administrative personnel. Typically, these facilities include:

- Office accommodation;
- Staff amenities;
- Light vehicle parking;
- A plant and equipment maintenance workshop; and
- Material and chemical storage.

Due to the geographical scale of the Project, a number of ancillary facilities will also be required. These are generally located closer to active work zones and support site based construction personnel. Typically, these facilities will include:

- Crib sheds and minimal office accommodation;
- Equipment storage;
- Material storage/laydown; and
- Concrete casting areas.

Appendix A4 details the location, composition and purpose of compound and ancillary facilities required for the Project. An assessment of the ancillary facility assessment criteria required by the REF mitigation measure GEN9 is also provided. A summary of the assessment criteria for ancillary facilities is provided in Section 3.7.2.

3 Planning

3.1 Project environmental obligations

All construction personnel working on the Project have the following general obligations:

- Minimise pollution of land, air and water;
- Use pollution control equipment and keep it in proper working order;
- Preserve the natural and cultural heritage environment;
- Give notice to the RMS and relevant authorities of a non-Aboriginal or Aboriginal heritage discovery;
- Minimise the occurrence of offensive noise;
- Be a good neighbour to surrounding land users;
- Keep the community informed of Project milestones, upcoming activities and duration of relevant aspects of the works;
- Use equipment with noise control features where available and ensure that it is properly maintained; and
- Take all feasible and reasonable steps to ensure compliance with the requirements of this CEMP.

3.2 Legal and other requirements

A register of legal and other requirements for the Project is contained in Appendix A1. This register will be reviewed at regular intervals e.g. during management reviews, and updated with any applicable changes. Changes made to the legal requirements register will be communicated to the wider team where necessary through toolbox talks, specific training and other methods detailed in Section 5.

3.3 Approvals, permits and licensing

A number of approvals, permits and licenses have, and/or will be obtained for the Project. Appendix A1 contains a register of all relevant environmental approvals, permits and licenses. The register will be maintained by the Environment Manager and will be reviewed prior to the commencement of construction and/or stages of construction, and at regular intervals during construction and at least annually as part of the management review.

The REF recognised that the following approvals and licences identified in the planning approval process would be obtained, or are required for the Project:

- Project Approval under the EP&A Act.
- Environmental Protection Licence (EPL) No. 20910 obtained on Wednesday 1st March 2017 under the *Protection of the Environment Operations Act 1997* (POEO Act) for road construction and/or for the operation of ancillary facilities
- Aboriginal Heritage Impact Permit (AHIP) No. C0002492 obtained on Wednesday 22nd February 2017 under the *National Parks and Wildlife Act 1974* (NPW Act)
- Aboriginal Heritage Impact Permit (AHIP) No. C0002113 obtained on 5th September 2016 under the *National Parks and Wildlife Act 1974* (NPW Act).

In accordance with the REF, all necessary licences, permits and approvals required for the development of the Project will be obtained and maintained as required throughout the life of the Project. No condition of the Project Approval removes the obligation for RMS or Lendlease

to obtain, renew or comply with such necessary licences, permits or approvals except as provided under Section 75U of the EP&A Act.

The REF requirements, RMS specification requirements and other applicable legislative controls are detailed within the Legal and other requirements register (Appendix A1).

3.4 Environmental aspects and impacts

REF environmental safeguard GEN6 requires that a risk assessment be undertaken prior to commencement of the activity.

A risk management process (consistent with the Lendlease EMS) will be used for the Project to determine the severity and likelihood of an activity's impact on the environment and to prioritise its significance. This process considers potential regulatory and legal risks as well as taking into consideration the concerns of community and other key stakeholders.

The objectives of risk assessment are to:

- Identify activities, events or outcomes that have the potential to adversely affect the local environment and/or human health/property;
- Qualitatively evaluate and categorise each risk item;
- Assess whether risk issues can be managed by environmental protection measures; and
- Qualitatively evaluate residual risk with implementation of measures.

Risk assessments for the Project are based on AS/NZS 4360:1999, the Australian standard for risk assessments.

An environmental risk assessment has been undertaken for the Project and is found within Appendix A2 (Aspects and Impacts Register). Outcomes from this assessment are used to designate initial risk for a range of activities, which are required to deliver the upgrade. This is further refined through the allocation of appropriate management strategies within the supporting sub plans, which form part of the CEMP.

Each sub plan also details risks and proposed mitigation measures for topic specific issues. Ongoing risk assessments will also be performed using the risk assessment process described above during the preparation of environmental work method statements.

The Aspects and impacts register included as Appendix A2 has been informed by the Environmental Risk Assessment Workshop undertaken in accordance with RMS G36 on Thursday 9th February 2017.

3.5 Environmental policy

The environmental policy describes Lendlease's commitment to continual improvement in environmental performance and compliance with applicable legal requirements.

The environmental policy is displayed on the Project website and at the site office, and communicated to staff and other interested parties via inductions and ongoing awareness programs.

A copy of the environmental policy can be found in Appendix A3.

3.6 Objectives and targets

As a means of assessing environmental performance during construction of the Project, environmental objectives and targets have been established. These objectives and targets have been developed with consideration of key issues identified through the environmental

assessment and risk assessment process. The objectives and targets are consistent with the Project environmental policy and will assist in monitoring whether the commitments of the policy are being met.

The targets are incorporated into relevant environmental management sub-plans.

The performance of the Project against the objectives and targets will be documented in the Project construction compliance reports and at least on an annual basis as part of the management review.

Environmental objectives and targets for the Project are provided in Table 3-1 below.

Table 3-1 Environmental objectives and targets

Objective	Target	Measurement tool
Construction the Project in accordance with environmental approvals.	Full compliance with statutory approvals.	Audits, construction compliance reporting, management view.
	Maintain a risk register. Review when significant changes occur in construction e.g. change in construction phase / methodology, post environmental incident etc.	
Compliance with all legal requirements.	No regulatory infringements (PINs or prosecutions).	Audits, construction compliance reporting, management view.
Implement a rigorous and comprehensive EMS that meets the requirements of AS/NZS ISO 14001.	Address non-conformances and corrective actions within specific timeframes.	Audits, management reviews.
Engage with the effected and broader community, minimise complaints and respond to any complaints within a suitable timeframe.	Disseminate regular Project updates and other information through the Project website and other tools identified in the Community Engagement Strategy.	Review complaints register, construction compliance report, audits.
	Record and respond to complaints within the timeframe specified in the Community Engagement Strategy.	
Continuously improve environmental performance.	Develop and maintain a program of ongoing environmental training.	Construction compliance report, management review.
	Capture lessons learnt from environmental incidents to minimise repeat issues. Encourage and reward innovation and effort throughout the work force.	

Objective	Target	Measurement tool
Foster environmental awareness and genuine respect for environmental protection in employees	Include environmental awareness raising sessions in the induction and ongoing Toolbox talks. Allocate environmental responsibilities to relevant site personnel through the CEMP.	EMS Audit
Management of Asbestos Containing Material	100% Compliance with Unexpected Contaminated Material Finds Procedure	EMS Audit, Site Inspection Checklist.
All Lendlease projects implement appropriate waste management strategies to reduce energy, waste and water consumption.	Implement mitigation measures for waste, water and energy management.	EMS Audit / Monthly Reporting.
Monthly Reporting	100% of Lendlease project environmental reports are submitted within the designated timeframe.	EMS Audit

3.7 Project refinements

3.7.1 General changes

Refinements to the Project may result from detailed design refinement or changed circumstances throughout construction. RMS is responsible for formally approving any Project modifications and for documenting refinements that are consistent with the approved Project.

The RMS Environment Representative is responsible for the assessment of Project refinements and management of the consistency assessment process. The Environmental Site Representative is responsible for incorporating any new environmental impacts and/or new statutory approval requirements into the appropriate environmental management documentation.

Any design changes or changes in scope of works should be communicated to the Environmental Site Representative. The Environmental Site Representative or Environmental Officer will then undertake an additional environmental assessment and consistency assessment or an Addendum Review of Environmental Factors (if required, as determined by RMS) in consultation with the RMS Environment Representative to determine if a Project modification may be required.

The RMS General Manager will approve all refinements that are deemed consistent with the Project approval or approve Addendum Review of Environmental Factors where required.

3.7.2 Ancillary facilities assessment criteria

Ancillary facilities are defined as a “temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), materials storage compound, maintenance workshop or testing laboratory”. The location of

the main site compound and ancillary facilities are nominated, assessed and detailed in Appendix A4. Circumstance may arise during construction where additional, or changes to the location of, ancillary facilities are required.

Where this situation arises, an assessment against the criteria detailed in REF GEN09 will be undertaken. These criteria require that ancillary facilities:

- Are not prone to flash flooding;
- More than 40 metres from a watercourse, or 50 metres in the case of the tributary of Surveyors Creek at Glenmore Parkway (Type 1 Fish Habitat);
- More than 50 metres from the nearest dwelling possible, unless otherwise approved by RMS;
- In previously disturbed areas that do not require the clearing of native vegetation;
- In plain view of the public to deter theft and illegal dumping;
- Outside the drip line of trees and on level ground wherever possible; and
- Located on relatively level ground and away from areas of heritage conservation value.

Where this criterion is unable to be met for any proposed ancillary facility, an assessment demonstrating how adverse impacts from construction or operation of the facility can be mitigated and managed to an acceptable standard will be undertaken and provided to the RMS Environment Representative for approval.

Pre and Post construction land condition assessments will be undertaken on any land made available by RMS for site facilities.

3.7.3 Approved facilities identified in the REF

Section 3.4 of the REF identified 11 potential locations along the alignment. Section 3.4 of the REF identifies the purpose for each site. Some ancillary sites are located within 50 metres of the nearest residential dwelling. This is unavoidable particularly in the built-up context of the northern half of the Project area, and the linear nature of the Project.

All of the proposed ancillary sites are in previously disturbed areas, but some limited clearing of native vegetation would be required to facilitate construction works. The proposal's potential impacts on native vegetation, including for ancillary sites, are assessed in Section 6.3 of the REF.

The stockpile and compound sites would be located on relatively level ground and away from areas of heritage conservation value.

Locations and configurations of ancillary facilities are detailed within Appendix A4, in the event that additional locations are required Lendlease will consult with the RMS Environment Manager to confirm the suitability of the locations and whether any additional environmental assessment is required, only where the location and/or usage differs from that as detailed within the Determined REF.

3.7.4 Stockpile locality assessment

Stockpile sites are required to comply with the same conditions as those above for Ancillary Facilities. Stockpile sites may be required to store material including, but not limited to:

- Excavated material to be used in fill embankments and other design features;

- Excavated material unsuitable for reuse in the formation;
- Temporary storage of contaminated materials;
- Excess concrete, pavement, rock, steel and other material stored for either future use in the Project or prior to removal from site; and
- Topsoil, mulch, excess timber for landscaping and revegetation works.

Where these facilities are proposed, the stockpile locating criteria contained in the Stockpile Management Protocol (See Appendix E of the Soil Water Management Plan) will be considered and stockpile sites located accordingly.

The protocol also includes standard mitigation measures that will be implemented to minimise or avoid impacts on the environment.

4 Implementation and operation

This CEMP is the overarching management plan for a suite of environmental management documents. It provides a structured and systematic approach to environmental management.

The primary purpose of the system of documentation is to:

- Ensure compliance with all applicable environmental laws, obligations and approvals; and
- To minimise environmental impacts.

The structure of the environmental management system for the Project is shown in

below.

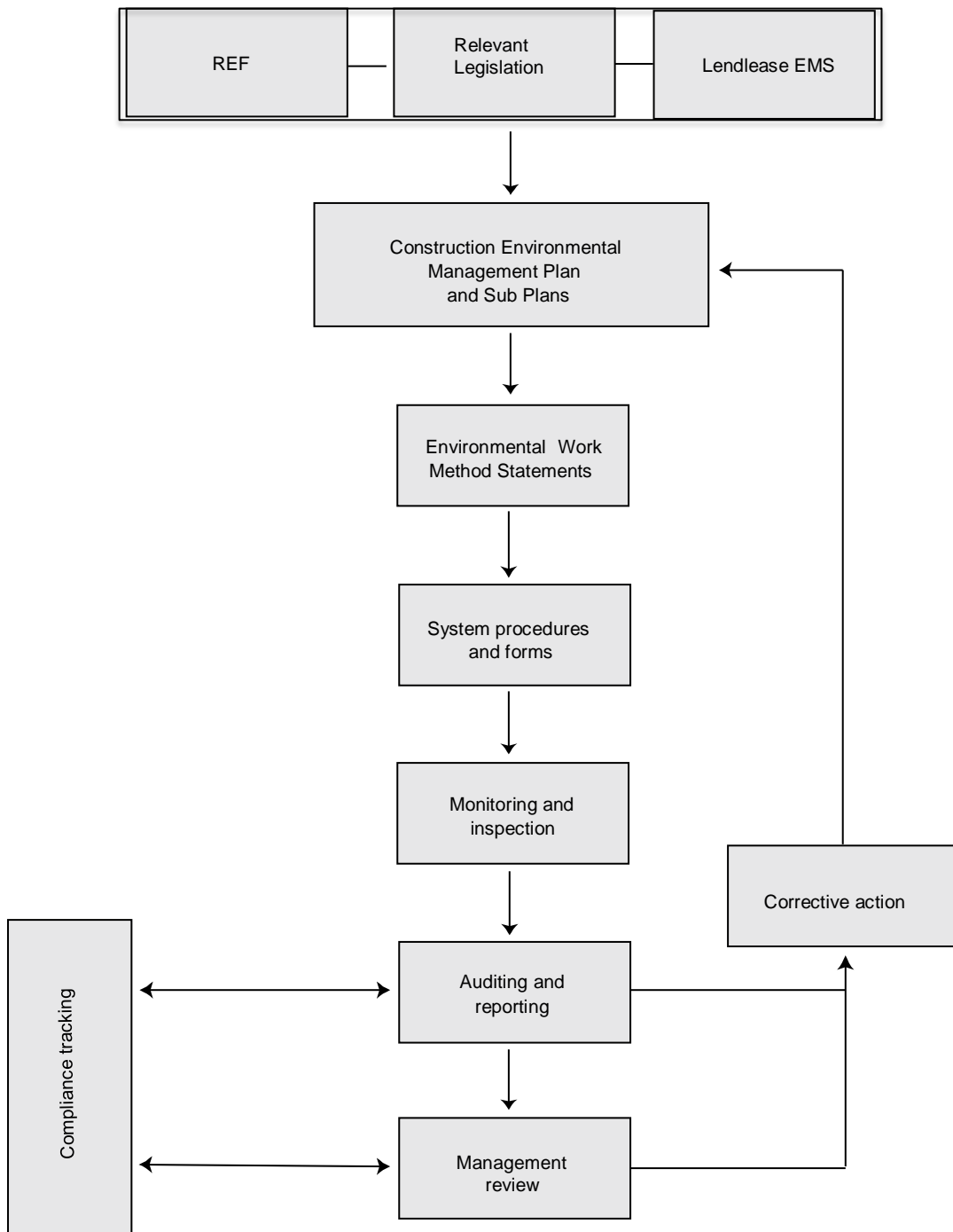


Figure 4-1 Environmental management system structure

4.1 Environmental management system documentation

4.1.1 Construction environmental management plan

This CEMP provides the system to manage and control the environmental aspects of the Project during pre-construction and construction. It identifies all requirements applicable to activities described in Section 2. It also provides the overall framework for the system and procedures to ensure environmental impacts are minimised and legislative and other requirements are fulfilled. The strategies defined in this CEMP have been developed with consideration of the safeguards and mitigation measures presented in the REF. This CEMP establishes the system for implementation, monitoring and continuous improvement to minimise impacts from the Project on the environment.

This CEMP is consistent with:

- Guideline for the preparation of Environmental Management Plans (DIPNR, 2004)
- AS/NZS ISO14001: 2015, 'Environmental Management System'
- RMS QA Specifications G36, G38 and G40
- Lendlease environmental management system.

The CEMP and sub-plans required under REF GEN1 will be provided to the RMS Environment Representative for approval.

4.1.2 Environmental management sub plans and strategies

A number of environmental management sub-plans support the CEMP. These documents are prepared to identify requirements and processes applicable to specific impacts or aspects of the activities described in Section 2. They address requirements identified in the REF documentation and RMS D&C G10, G36, G38 and G40 where applicable.

Environmental procedures may also be developed as required throughout the Project. These will also guide environmental management of potential impacts on-site.

A list of construction sub-plans are provided in Table 4-1.

Table 4-1 Environmental management sub plans and strategies

Document name	Approval pathway
Noise and Vibration Management Plan	RMS
Flora and Fauna Management Plan	RMS
Contaminated Land Management Plan	RMS
Soil and Water Management Plan	RMS
Air Quality Management Plan	RMS
Aboriginal Heritage Management Plan	RMS
Urban Design Plan	RMS
Traffic Management and Safety Plan	RMS
Community Involvement Plan	RMS
Waste and Resource Management Plan	RMS

4.1.3 Environmental work method statements

Environmental Work Method Statements (EWMS) are prepared to manage and control high risk activities that have the potential to negatively impact on the environment. EWMS will be prepared prior to the commencement of relevant construction activities on site and will incorporate appropriate mitigation measures and controls from management sub plans. They also identify key procedures to be used concurrently with the EWMS. EWMS are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams and simply written instructions.

EWMS will be prepared progressively in the lead up to and throughout construction in consultation with relevant members from the Project team, and approved by the Environment Manager.

EWMS for activities identified as having high environmental risk will undergo a period of consultation with stakeholders and authorities prior to approval. A list of upcoming/future EWMS will be provided to Environmental Review Group (ERG) participants during regular meetings. The ERG will determine which EWMS are high risk and require consultation and those that do not.

EWMS for activities likely to be considered high risk include:

- Clearing, grubbing and mulching;
- Working in waterways;
- Sediment basin construction and management; and
- Dewatering.

All construction personnel and sub-contractors undertaking a task governed by an EWMS must participate in training on the EWMS, and acknowledge that they have read and understood their obligations prior to commencing work.

Regular monitoring, inspections and auditing against compliance with the EWMS will be undertaken by Project management, quality, and environmental personnel to ensure that all controls are being followed and that any non-conformances are recorded and corrective actions implemented.

A register of EWMS will be maintained throughout the delivery of the Project.

4.1.4 Progressive erosion and sediment control plans

Progressive Erosion and Sediment Control Plans (PESCPs) are planning documents that clearly show the site layout and the approximate location of erosion and sediment control structures onsite. They cover all construction stages from initial vegetation clearing through to rehabilitation when erosion and sediment control are no longer required and are removed.

PESCPs may be produced in conjunction with EWMS to provide more detailed site-specific environmental mitigation measures.

PESCPs will be developed by project environment staff in consultation with a suitably qualified Soil Conservationist, the Superintendent, site engineers, foreman and other relevant site personnel, as required. They will be modified to reflect site condition at the time of construction. The Environmental Site Representative will approve PESCPs in the first instance. Minor changes thereafter will be approved by environment staff in consultation with the Environmental Site Representative, as required.

PESCPs will be developed for all work areas where there is a risk of erosion and sediment loss prior to commencing activities, and submitted to RMS in accordance with G38 Hold Point 3.1.1.

4.1.5 Sensitive Area Plans

The Project traverses a diversity of environmental and socially sensitive areas/sites. To assist pre-construction planning and on-site construction management, these site constraints are detailed on site specific sensitive area plans that extend the length of the Project. Sensitive area plans include information pertaining, but not limited to:

- Noise sensitive receivers e.g. residential dwellings, educational institutions;
- Flora features, including threatened species and endangered ecological communities;
- Aboriginal and non-Aboriginal heritage sites, including items, places, objects and sites;
- Local waterways; and
- Recorded threatened fauna sightings (when they occur)

The sensitive area plans developed for the Project are presented in Appendix A5. They are a working element of the CEMP and will be revised throughout construction to reflect true ground conditions and the most up-to-date information available on sensitive sites. Sensitive area plans will be used in conjunction with EWMS to help identify key risk areas and to promote ongoing communication to construction personnel during the Project.

4.1.6 System procedures, forms and other documents

The Project environmental management system procedures, forms and other documents provide instructions and records related to both environmental and non-environmental activities throughout the Project.

Project specific procedures will be developed (where required) in accordance with the requirements for the Project. Where applicable, existing contractor procedures and work instructions will be applied or amended for use on the Project.

A register of relevant environmental procedures and forms will be maintained by the Environmental Site Representative.

4.2 Resources, roles, responsibilities and authority

The key environmental management roles and responsibilities for the construction phase of the Project are described below. The structure of the TNR3N roles is shown in Figure 4-2.

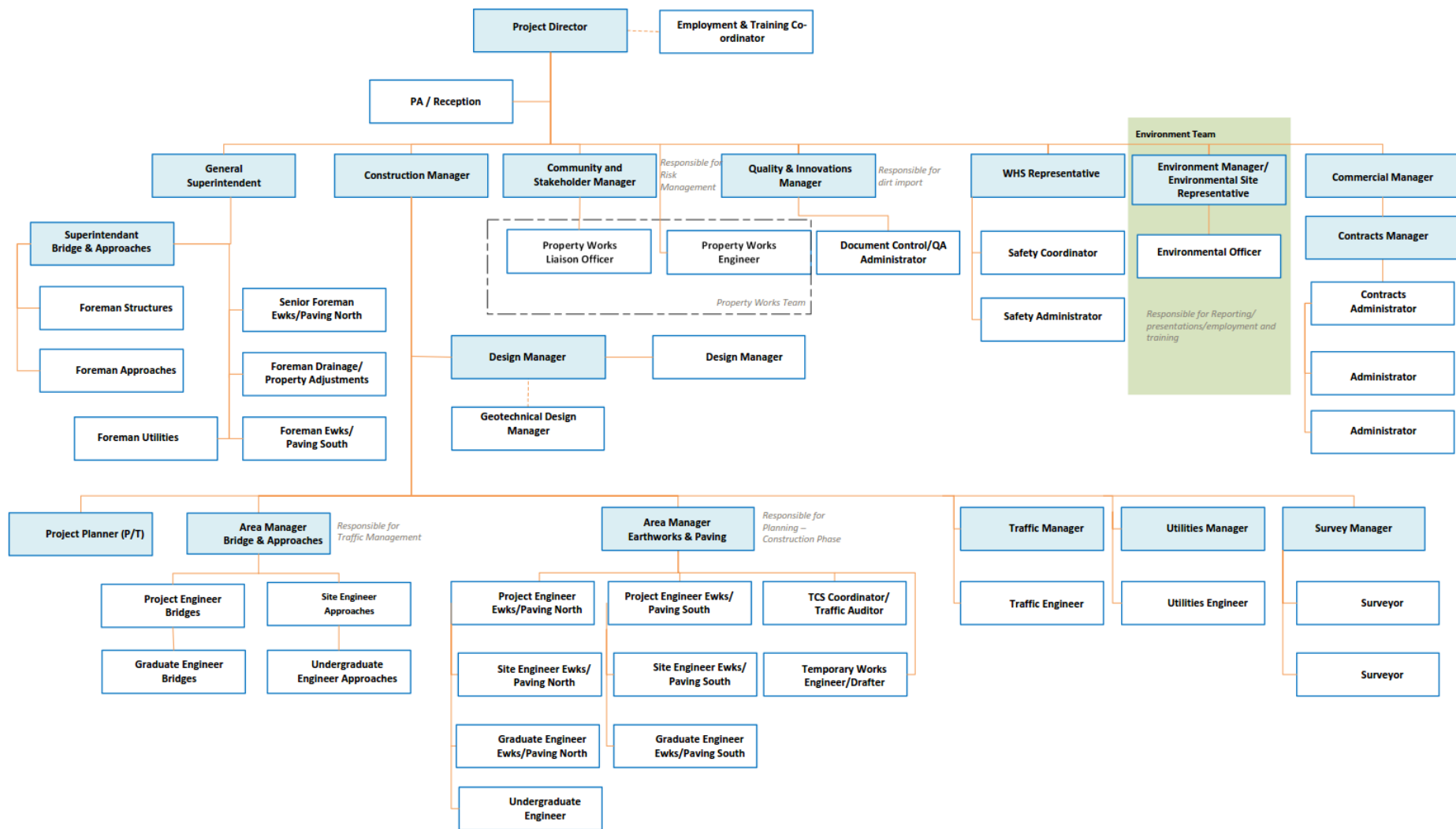


Figure 4-2 TNR3N organisational chart

The Northern Road Upgrade - Stage 3 North Project

4.2.1 RMS Environment Representative

The environmental responsibilities of the RMS Environment Representative include (but are not limited to) the following:

- Review any environmental management plans and related documents prepared for the Project;
- Review minor Project refinements that are consistent with the Project environmental assessment and approval documentation and recommend they be approved to the RMS Environment Manager and General Manager – Western Sydney Program Office; and
- Monitor the environmental performance of the Project in relation to RMS requirements.

4.2.2 Project Director

The environmental responsibilities of the Project Director include (but are not limited to) the following:

- Ensure all works comply with relevant regulatory and Project requirements;
- Ensure the requirements of this CEMP are fully implemented;
- Endorse and support the Project environmental policy attached at Appendix A3;
- Liaise with RMS, Environmental Representative and other government authorities as required;
- Participate and provide guidance in the regular review of this CEMP and supporting documentation;
- Provide adequate resources (personnel, financial and technological) to ensure effective development, implementation and maintenance of this CEMP;
- Ensure that all personnel receive appropriate induction training, including details of the environmental and community requirements;
- Ensure that complaints are investigated to ensure effective resolution; and
- Stop work immediately if an unacceptable impact on the environment is likely to occur.

4.2.3 Construction Manager

The environmental responsibilities of the Construction Manager include (but are not limited to) the following:

- Plan construction works in a manner that avoids or minimises impact to environment;
- Ensure the requirements of this CEMP are fully implemented;
- Ensure construction personnel manage construction works in accordance with statutory and approval requirements;
- Ensure environmental management procedures and protection measures are implemented;
- Ensure all Project personnel attend an induction prior to commencing works;
- Liaise with RMS, Environmental Representative and other government authorities as required; and
- Stop work immediately if an unacceptable impact on the environment is likely to occur.

4.2.4 General Superintendent

The environmental responsibilities of the Superintendent include (but are not limited to) the following:

- Communicate with all personnel and sub-contractors regarding compliance with the CEMP and site-specific environmental issues;
- Ensure all site workers attend an environmental induction prior to the commencement of works;
- Participate in the preparation and implementation of PESCPs and EWMS;
- Co-ordinate the implementation of the CEMP;
- Co-ordinate the implementation and maintenance of pollution control measures;
- Identify resources required for implementation of the CEMP;
- Attend ERG Inspections as required;
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Environment Manager / Environmental Officer;
- Co-ordinate action in emergency situations and allocate required resources; and
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the Construction Manager and Environment Manager.

4.2.5 Environment Manager / Environmental Site Representative

The environmental responsibilities of the Environment Manager include (but are not limited to) the following:

- Overall responsibility for the establishment, management, monitoring and maintenance of erosion and sediment controls and other environmental matters on the Project;
- Advise on environmental matters specified in G36;
- Development, implementation, monitoring and updating of the CEMP and sub plans in accordance with ISO14001: 2015;
- Ensure that the CEMP is established, implemented and maintained in compliance with G36, including all Sub-Plans, procedures and supplementary EWMS, and upgrades to these documents (as needed) to remain current with the progress of the Works;
- Report to Project Director and other senior managers on the performance and implementation of the CEMP;
- Ensure management reviews of the CEMP are undertaken annually, documented and actions implemented;
- Ensure environmental risks of the Project are identified and appropriate mitigation measures implemented;
- Identify where environmental measures are not meeting the targets set and where improvement can be achieved;
- Ensure environmental protocols are in place and managed;
- Ensure environmental compliance;
- Obtain and update all environmental licences, approvals and permits as required;
- Lead liaison with RMS Environmental Representative and relevant authorities on environmental matters;
- Manage environmental document control, reporting, inductions and training;
- Maintain a register of all environmental management documents for the deed;

- Manage environmental reporting within the Project team and to the RMS and regulatory authorities;
- Preparing reports on a monthly basis outlining the Project Works undertaken and the achievements that have been met, as well as identifying those areas where improvements were made;
- Oversee or carry out regular inspections and auditing of the works to ensure that environmental safeguards are being followed;
- Manage all subcontractors and consultants with regards to environmental matters, including assessing their environmental capabilities and overseeing the submission of their environmental documents;
- Prepare and/or distribute environment awareness notes;
- Review and approve PESCP;
- Develop and facilitate induction, toolbox talks and other training programs regarding environmental requirements for all site personnel;
- Notify RMS and relevant authorities in the event of an environmental incident and manage close-out of these;
- Stop activities where there is an actual or immediate risk of harm to the environment, or to prevent environmental non-conformities, and advise the Project Manager, Construction Manager and Superintendent;
- Assist the Communications Manager to resolve environment-related complaints; and
- Where there is an Environment Protection Licence (EPL) in place, the Environment Manager is responsible for the management of responses to environmental complaints and the reporting of environmental complaints to the EPA in accordance with any specific EPL conditions.

4.2.6 Environmental Officer

The environmental responsibilities of the Environmental Officer include, but are not limited to, the following:

- Assist in preparing the CEMP (including any future revisions) in accordance with all relevant requirements;
- Develop PESCP in consultation with the superintendent, site engineers, foreman and other relevant site personnel, as required;
- Undertake site inspections, carry out monitoring activities and complete site checklists with the approval of the Environmental Site Representative;
- Ensure monitoring records are appropriately maintained, reviewed and any non-compliance issues addressed with the approval of the Environmental Site Representative;
- Manage the day-to-day environmental elements of construction;
- Record and provide written reports to the Environment Manager of non-conformances or corrective actions with the CEMP. This may include the need to implement additional, or revise existing, mitigation measures;
- Assist in identifying environmental risks;
- Advise the Environment Manager and Construction Manager of the need to stop work immediately if an unacceptable impact on the environment is likely to occur or to require other reasonable steps to be taken by the Construction Manager or site construction staff to avoid or minimise impacts;
- Provide reports to the Environment Manager on any major issues resulting from the Project;

- Assist all site staff with issues concerning Project environmental matters;
- Assist in developing training programs regarding environmental requirements and deliver where required, including delivery of the environmental component of toolbox talks; and
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the Project Manager, Construction Manager, Superintendent and Environment Manager.

4.2.7 Community and Stakeholder Manager

The environmental responsibilities of the Community and Stakeholder Manager include, but are not limited to, the following:

- Ensure that all community consultation activities are carried out;
- Report any environmental issues to the Environment Manager raised by stakeholders or members of the community;
- Communicate general Project progress, performance and issues to stakeholders including the community; and
- Maintain the 24 hour complaints hotline.

4.2.8 Project Engineers

The environmental responsibilities of the Project engineers include (but are not limited to) the following:

- Provide input into the preparation of environmental planning documents as required;
- Ensure that instructions are issued and adequate information provided to employees that relate to environmental risks on-site;
- Ensure that the works are carried out in accordance with the requirements of the CEMP and supporting documentation, including the implementation of all environmental controls;
- Identify any environmental risks;
- Identify resource needs for implementation of CEMP requirements and related documents;
- Ensure that complaints are investigated to ensure effective resolution;
- Take action in the event of an emergency and allocate the required resources to minimise the environmental impact; and
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Superintendent and Environmental Site Representative.

4.2.9 Foreman (including Senior/General)

The environmental responsibilities of the foreman include (but are not limited to) the following:

- Undertake any environmental duties as defined by the superintendent or Project/Site Engineer;
- Control field works and implement/maintain effective environmental controls;
- Where required, undertake environmental risk assessment of works prior to commencement;
- Participate in preparation of and ensure site activities comply with EWMS and relevant records are kept;
- Participate in preparation of PESCPs;
- Ensure all site workers are site inducted prior to commencement of works;
- Attend to any spills or environmental incidents that may occur on-site;

- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Superintendent; and
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the Project Manager, Construction Manager, Superintendent or Environmental Site Representative.

4.2.10 Wider Project Team (including sub-contractors)

The environmental responsibilities of the wider Project team include (but are not limited to) the following:

- Comply with the relevant requirements of the CEMP, or other environmental management guidance as instructed by a member of the Project's management;
- Participate in the mandatory Project/site induction program;
- Report any environmental incidents to the foreman immediately or as soon as practicable if reasonable steps can be adopted to control the incident;
- Undertake remedial action as required to ensure environmental controls are maintained in good working order; and
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the Project Manager, Construction Manager, Superintendent or Environmental Site Representative.

4.3 Project team integration

The integration of the environment, construction and other Project teams is fundamental to the effective identification of environmental risks and implementation of the environmental controls in the field. Project management personnel support is critical to initiating and maintaining this integration. Techniques used to drive integration of the teams to achieve environmental outcomes may include:

- Integration of design and construction teams from the onset of detailed design, including Environmental Compliance reviews;
- Integrated planning sessions, where environmental risks and mitigations are a critical discussion aspect;
- Foremen/Engineers involved in Erosion and Sediment Control Plan (ESCP) and EWMS preparation;
- Environmental toolboxes by the environmental staff, the foremen and superintendent;
- Foremen / Superintendent to attend ERG inspections to understand Agency concerns;
- Foreman to be responsible and undertake rain inspections with environmental staff where possible;
- Compound layout and open office environment where the environmental team is integrated into the engineering and community teams;
- Publication and display of sensitive area plans so that construction teams are aware of areas;
- Weather forecasts and warnings communicated to the wider team in order to prepare the site for adverse events and/or aid in the planning of high-risk activities; and
- Regular attendance at weekly construction meetings with engineers and all foremen to discuss the upcoming activities and risks, including environmental aspects/concerns.

4.4 Sub-contractor management

Environmental requirements and responsibilities are to be specified to sub-contractors in the contract documentation. As part of the selection process, consideration will also be given to their past environmental performance. The Environmental Site Representative, or delegate, will participate in the tender assessment and selection process where it is deemed necessary due to associated environmental risks. All sub-contractors will be required to complete a sub-contractor questionnaire or similar at tender time, and considered for shortlisting.

All sub-contractors are required to work in accordance with the approved CEMP.

All sub-contractors are required to attend the Project induction where the requirements and obligations of the CEMP are communicated. A record of all sub-contractors inducted will be maintained as part of the Project induction and training register.

Subcontractor environmental performance will be recorded during the environmental inspection and audit framework detailed within Section 8 of this CEMP.

4.5 CEMP availability

This CEMP will be made available for public inspection on request. Confidential information, which may include the location of threatened species, Aboriginal objects or places and personnel contact details, will be removed from all documents provided or made available to the public.

An electronic copy of the CEMP is provided on the Project website.

5 Competence, training and awareness

To ensure that this CEMP is effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements of this CEMP. The Environment Manager will coordinate the environmental training.

5.1 Environmental induction

All personnel (including sub-contractors) are required to attend a compulsory site induction that includes an environmental component prior to commencement on-site. This is done to ensure all personnel involved in the Project are aware of the requirements of the CEMP and to ensure the implementation of environmental management measures.

Short-term visitors to site for purposes such as deliveries will be required to undertake a visitors induction and be accompanied by inducted personnel at all times.

The Environmental Site Representative (or delegate) will conduct the environmental component of the site inductions.

The environmental component will include, but not be limited to, an overview of:

- Relevant details of the CEMP including purpose and objectives;
- Key environmental issues;
- Conditions of environmental licences, permits, approvals and other applicable legal requirements (including changes where applicable);
- Specific environmental management requirements and responsibilities;
- Mitigation measures for the control of environmental issues;
- Incident response and reporting requirements; and
- Information relating to the location of environmental constraints.

A record of all environment inductions will be maintained and kept on-site. The Environmental Site Representative may authorise amendments to the induction at any time. Possible reasons for changes to the induction may be Project modifications, legislative changes or amendments to this CEMP or related documentation.

5.2 Toolbox talks, training and awareness

Toolbox talks will be one method of raising awareness and educating personnel on issues related to all aspects of construction including environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout construction.

Toolbox talks will include details of EWMSs for relevant personnel. Toolbox talks will also be tailored to specific environmental issues relevant to upcoming works.

Relevant environmental issues may include (but are not limited to):

- Changes to Project legal requirements, where applicable;
- Erosion and sedimentation control;
- Hours of work;
- Emergency and spill response;
- Aboriginal and non-Aboriginal heritage;
- Threatened species, endangered ecological communities, clearing controls and vegetation protection;
- Weed management;

- Noise and Vibration control;
- Dust control; and
- Potential to encounter asbestos containing material and required management measures.

Toolbox attendance is mandatory and attendees of toolbox talks are required to sign an attendance form with the records maintained on site.

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. Topics covered may include those detailed above, or others deemed necessary in the lead up to or during construction.

Another way to inform construction personnel will be through the development and distribution of awareness notes from time to time during construction. These will typically take the form of a poster, booklet, or similar and will be distributed to engineers, leading hands, foreman and others with a responsibility for managing specific work locations or activities. This documentation will be used to inform the broader workforce through either daily pre-starts meeting (see Section 5.3) or provision in worker crib sheds / break facilities.

Table 5-2 Example Environmental Training Schedule

Training	Senior Managers	Superintendent	Engineers	Environmental Staff	Community Staff	Foreman	Leading Hands	Labourers	Sub-Contractors	Design Staff	Administrative Staff
Project Induction	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CEMP on boarding and responsibilities	✓	✓	✓	✓	✓	✓					
Heritage Awareness	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Waste Management Training	✓	✓	✓	✓		✓					
Erosion and Sediment Control	✓	✓	✓	✓		✓	✓				
Spill response	✓	✓	✓	✓		✓	✓				

5.3 Daily pre-start meetings

The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant for the day's work.

The Foreman will conduct a daily pre-start meeting with the site workforce before the commencement of work each day (or shift) or where changes occur during a shift. Daily pre-start meetings are generally succinct in nature and take approximately 10-15 minutes.

The environmental component of pre-starts will be determined by relevant foreman and environmental personnel and will include any environmental issues that could potentially be

impacted by, or impact on, the day's activities. All attendees will be required to sign on to the pre-start and acknowledge their understanding of the issues explained.

Pre-start topics, dates delivered and a register of attendees will be recorded.

6 Communication

6.1 Internal communication

Clear lines of communication throughout all levels and functions (e.g. management, staff and sub-contracted service providers), is key to minimising environmental impacts and achieving continual improvements in environmental performance.

The environmental team will meet regularly to discuss any issues with environmental management on-site, any amendments to plans that might be required or any new / changes to construction activities.

Regular meetings may also be scheduled with relevant RMS environmental staff. The purpose of these meetings would be to communicate ongoing environmental performance and to identify any issues to be addressed.

In addition, environment team members will participate in toolbox talks on at least a weekly basis. This forum will provide an opportunity for the environment team members to communicate on environmental performance, to advise on any upcoming sensitive environmental matters for future work areas and to receive feedback from on-site personnel.

Further internal communications regarding environmental issues and aspects will be through awareness training as described in Section 5.2.

6.2 External and government authority consultation

The Environmental Site Representative will be the main point of contact regarding specific environmental issues. The Environmental Site Representative has the responsibility to report on the ongoing environmental performance of the Project to RMS, and the NSW Environment Protection Authority (EPA). The Environmental Site Representative will report regularly to RMS on progress and any key environmental matters and to the EPA through monthly EPL reports.

Relevant government agencies (for example EPA, DP&I, and Office of Environment and Heritage (OEH)) will be consulted throughout construction through their involvement in regular ERG meetings. These meetings will discuss environmental performance, upcoming works, and high risk activities and will include inspections or the work sites as required.

6.3 Stakeholder and community communication

6.3.1 Community Involvement Plan

A Community Involvement Plan has been developed to provide an approach to stakeholder and community communications in accordance with the requirements of the REF. The strategy identifies opportunities for providing information and consulting with the community and stakeholders during the construction phase of the Project. The plan defines:

- The engagement groups;
- The key messages of the Project; and
- The range of tools that will be used to interact with community and stakeholders.

Communication tools defined in the strategy include:

- Display centre;
- Advertisements;
- Door-knock;

- Letterbox drops;
- Signage;
- Website; and
- 1800 number and email address.

The Community Involvement Plan will be submitted to RMS for approval prior to the commencement of construction.

6.3.2 Complaints and enquires procedure

A Complaints and Enquiries Procedure, consistent with *AS 4269: Complaints Handling*, will be developed for the Project, in accordance with the requirements of SE1.

All community inquiries and complaints related to the construction activities will be referred to the 24-hour community information line (1800 870 665). An email address (tnr.community@lendlease.com) has been provided for receipt of complaints and enquiries. The telephone number, the postal address and the email address were published in newspapers circulating in the local area prior to the commencement of construction and are provided on the Project website.

Information on all complaints received, including the means by which they were addressed and whether resolution was reached and whether mediation was required or used will be included in a complaints register. The information contained within the register will be made available to the RMS representative on request.

Attempts will be made to resolve all complaints in accordance with the community engagement strategy. An initial response to complaints will be provided within 24 hours of a complaint being received. A further detailed response, including steps taken to resolve the issue(s) that lead to the complaint, will be provided within 10 days. All complaints should be closed off in the stakeholder database. At all times the stakeholder will be kept informed of when they will receive a response.

The Environmental Site Representative and/or the Community and Stakeholder Manager will apply an adaptive approach to ensure that corrective actions are applied in consultation with the appropriate construction staff to allow modifications and improvements in the management of any environmental issues resulting in community complaints.

7 Incidents and emergencies

7.1 Incident and Emergency Management

In the event of an environmental incident, Company Procedure *LLE702 Environmental Incidents and Emergencies* (Appendix A7) will be adhered to. This protocol guides initial actions required to avoid and minimise environmental harm and notification of relevant project personnel.

A Pollution Incident Response Management Plan will be prepared and implemented on the Project in accordance with section 153C of the *POEO Act Amendment (2011)* as Environmental Protection Licence (EPL) No. 20910 for the Project was issued on March 1st 2017.

Once initial incident management has occurred, RMS's Environmental Incident Classification and Reporting Procedure will be implemented. The full procedure is provided in Appendix A7. The RMS procedure provides references to:

- Types of incidents;
- Criteria for classifying of environmental incidents;
- Processes for systematically responding to and managing emergency situations; and
- Processes, and legal requirements (e.g. Acts, Regulations, EPL), for reporting and notification of an environmental incident.

The procedure covers the management of events such as, but not limited to:

- Spills of fuels, oils, chemicals and other hazardous materials;
- Unauthorised discharge from sediment basins or other containment devices;
- Unauthorised clearing or clearing beyond the extent of the Project boundary or premises;
- Inadequate installation and subsequent failure of temporary erosion and sediment controls;
- Unauthorised damage or interference to threatened species, endangered ecological communities or critical habitat;
- Unauthorised harm or desecration to Aboriginal objects and Aboriginal places;
- Unauthorised damage or destruction to any State or locally significant relic or Heritage item;
- Unauthorised damage to marine vegetation and mangroves;
- Unauthorised dredging or reclamation works within a watercourse;
- Potential contamination of waterways or land;
- Accidental starting of a fire or a fire breaking out of containment;
- Any potential breach of legislation, including a potential breach of a condition of: an environment protection licence approval; or any agency permit condition;
- Works undertaken without appropriate approval or assessment under the EP&A Act;
- Works undertaken that are not in accordance with a Project assessment; and
- Unauthorised dumping of waste.

Typically, environmental incidents will be notified verbally immediately and in writing within 1 hour of any incident occurring to the RMS Representative and the RMS Environment Representative. Incident reports will be provided to RMS Representative and the RMS Environment Representative following relevant investigation conclusion, including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of

a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

The EPA will be notified of any notifiable environmental incidents or pollution incidents on or around the site via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the POEO Act. The circumstances where this will take place include:

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

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

RMS Environment Branch and Project team will maintain all records relating to environmental incidents.

In the event an environmental incident requires notification to EPA and/or has the potential to become Critical or Business Reportable under the LLE EMS, the NSW/ACT Environment and Sustainability Manager will be notified by phone within 1 hour.

7.2 Incident Investigation

All incidents will be documented, investigations conducted and action plans established in order that the event does not occur again. The lessons learnt from the investigation and/or where current procedures are identified as being ineffective, the CEMP will be revised by the Environment Manager 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 if required.

All personnel are required to report all incidents, as it is regarded as a valuable method of addressing shortcomings in procedures, training or equipment, and is an opportunity for improvement. It is an offence not to report to EPA environmental incidents that may exceed \$10,000 in harm or those that are not trivial in nature, in accordance with part 5.7 of the POEO Act.

RMS form 624 and Lendlease form *LLE702B Incident Investigation* shall be used when completing incident investigation.

8 Inspections, monitoring and auditing

8.1 Environmental inspections

8.1.1 Weekly and post rainfall site inspections

The Environmental Site Representative and Environmental Officer will undertake weekly and post rainfall inspections of the work sites to evaluate the effectiveness of environmental controls. The Environmental Officer will record inspection findings on an inspection checklist form (Appendix A8 – LLE703A), which will be approved by the Environmental Site Representative.

If any maintenance and/or deficiencies in environmental controls or in the standard of environmental performance are observed, they will be recorded on the checklist form. Records will also include details of any maintenance required, the nature of the deficiency, any actions agreed, an implementation priority and when the corrective action works have been addressed.

Observations raised during the inspection would be recorded on LLE703B Environmental Observation Report (Appendix A8).

8.1.2 RMS and ERG inspections

RMS staff and members of the ERG will undertake regular inspections of works sites, and in particular critical activities throughout construction of the Project. Inspections by RMS Project staff would typically occur on a fortnightly basis. ERG inspections will typically be less frequent, more likely on a monthly or three-monthly basis depending on the construction staging of Project.

A member of the Project environment team will participate in all client and ERG inspections, and maintain records. Deficiencies and required actions will be analysed and prioritised at the completion of the inspection and timeframes for implementation of corrective actions agreed.

8.1.3 Pre-work inspections

Prior to the commencement of works on each shift, an informal inspection will be carried out and will include a check of relevant environmental controls and resources required to ensure effective operation and maintenance. Works are not to commence unless inspections are found to be satisfactory.

The foreman for the works will undertake the inspections.

8.2 Environmental monitoring

Monitoring will be undertaken to validate the impacts predicted for the Project, to measure the effectiveness of environmental controls and implementation of this CEMP, and to address approval requirements. The monitoring requirements are included in the relevant environmental management sub-plans and summarised in Table 8-1 below.

Table 8-1 Summary of required environmental monitoring

Reference	Description	Relevant Sub-Plan	Reporting Requirements
<i>NV19</i>	Noise monitoring will be undertaken to assess compliance with noise management levels (NMLs) and assess the effectiveness of noise mitigation.	<i>Noise and Vibration Management Plan</i>	<i>Monthly Environmental Performance Report</i>
<i>B4</i>	An ecologist will be engaged to develop and implement a Nest Box Plan of Management, including nest box monitoring requirements.	<i>Flora and Fauna Management Plan</i>	<i>Monthly Environmental Performance Report</i>
<i>AQ4</i>	Depositional dust gauges will be installed at regular intervals along the project alignment at representative receiver locations, around major construction compound and stockpiling locations	<i>Air Quality Management Plan</i>	<i>Monthly Environmental Performance Report</i>
<i>G38 2.3</i>	Prepare and implement a Water Quality Monitoring Program in accordance with G38.	<i>SWMP</i>	<i>Monthly Environmental Performance Report</i>

Environmental monitoring will involve collecting and interpreting data to provide quantification of the effectiveness of the CEMP. The monitoring programs will assist in the auditing of safeguard measures to ensure they achieve their objectives and to facilitate modification where necessary.

Lendlease Procedure LLE703 *Environmental Monitoring and Inspection* shall be followed when planning and monitoring programs. The timing, frequency, methodology, locations and responsibilities for the proposed environmental monitoring programs are specified in the respective Sub-Plans, and summarised in Table 8.1. The monitoring programs range from those involving formal sample collection, analysis and measurement, to those involving a more qualitative assessment.

Where a non-conformance is detected or monitoring results are outside of the expected range and are directly attributable to the Project (i.e. are influenced by factors under the direct control of the Project e.g. noise from construction equipment), the process described in Section 8.6 will be implemented. Steps in the process will typically include:

- Non-conformances identified as part of the weekly inspections will be actioned and closed out in a timeframe agreed to between the Environmental Site Representative or Officer and relevant member of the construction team on site;
- If required, an analysis of the results by the Environmental Site Representative in more detail with a view of determining possible causes for the non-conformance;
- If required, a site inspection by the Environmental Site Representative or delegate;
- Advising relevant personnel of the problem;

- Identifying and agreeing on actions to resolve or mitigate the non-conformance;
- Implementing actions to rectify or mitigate the non-conformance;
- A non-conformance Environmental Incident Report and/or Environmental Improvement Notice may be issued by the Environmental Site Representative in response to the non-conformance problem if it is found to be construction related; and
- The timing for any improvement will be agreed between the relevant Engineer/Superintendent and Environmental Site Representative based on the level of risk (e.g. a significant risk will require immediate action).

All environmental monitoring equipment shall be maintained and calibrated according to manufacturer's specifications and appropriate records kept.

8.3 Auditing and reporting

Table 8-2 presents auditing requirements that are applicable to the Project

8.3.1 Lendlease Audits

Internal auditing will be undertaken generally on a six monthly basis throughout the Project. The purpose of auditing is to verify compliance with:

- Lendlease Environmental Management system;
- This CEMP and Sub Plans;
- Approval requirements; and
- Any relevant legal and other requirements (e.g. licenses, permits, regulations, RMS contract documentation).

An audit checklist will be developed and amended as necessary to reflect changes to this CEMP, subsequent approvals and changes to Acts, regulations or guidelines.

8.3.2 Independent external audits

External auditing will be undertaken by an independent environment auditor in accordance with ISO 19011:2003 - *Guidelines for Quality and/ or Environmental Management Systems Auditing*.

Table 8-2 Audit requirements

No	Audit	Requirement	Timing	Responsibility	Recipient
1	Internal audit	Verify compliance with approval and legal requirements, RMS specifications, LLE EMS and construction documentation	The first audit within three months of the commencement of construction and then at six monthly intervals thereafter. The final submitted within five working days of contract completion date.	Environmental Site Representative	Project Manager, RMS

No	Audit	Requirement	Timing	Responsibility	Recipient
2	External independent audit	Verify compliance with approval and legal requirements, RMS specifications, construction documentation and any other commitments.	Six monthly	Environmental Site Representative	Project Manager, RMS

8.4 Compliance Tracking Register

A Compliance Tracking Register will be developed and maintained for the Project to enable the Project to accurately track compliance against the requirements of the REF, LL EMS, CEMP and the EPL.

The Compliance Tracking Register describes how the requirements of the EPL, REF, CEMP and LLE EMS have/will be met and allows the Project team direct access to compliance evidence for the purposes of monthly reporting to RMS, Lendlease and the NSW EPA.

8.5 Reporting

Prior to, during and following construction, various reports will be prepared to fulfil internal RMS, EPA and contractor reporting needs. Table 8-3 sets out the reporting requirements applicable to the Project, timing of the reporting, who is responsible for managing preparation of the reports and the intended recipient(s).

Additional reporting may be necessary as the works progress. In such a circumstance, Table 8-3 will be amended to reflect these changes.

Table 8-3 Reporting requirements

No.	Report	Requirement	Timing	Responsibility	Recipient
1	Monthly environmental report	For incorporation in Project Monthly Reports including environmental statistics (i.e. incidents, regulatory action, complaints on environmental issues, monitoring results), regulatory and authority considerations, monitoring program performance and key environmental issues	Monthly	Environmental Site Representative	RMS
2	EPL annual returns	Report on compliance with EPL.	Within 60 days of the anniversary of the EPL.	Environmental Site Representative	EPA
3	RMS and/or EPA environmental inspection reports	Response to matter raised in RMS and/or EPA site inspections.	As required. Typically, every two weeks for RMS inspection reports and monthly for EPA inspection reports.	Environmental Site Representative, Environmental Officer	RMS/EPA
4	LLE Environment and Sustainability Monthly Report	Provide monthly report in accordance with LLE EMS.	Monthly	Environmental Site Representative	LLE NSW/ACT Environment and Sustainability Manager

8.6 Non-conformity, corrective and preventative actions

Any member of the Project team may raise a non-conformance or improvement opportunity.

The Lendlease Project Quality Plan describes the process for managing non-conforming work practises and initiating corrective/preventative actions or system improvements.

The RMS Representative or public authority may also raise a non-conformance or improvement opportunity using the same process. A non-conformance is the failure or refusal to comply with the requirements of this CEMP and supporting documentation.

For each non-conformance identified a corrective/preventative action (or actions) must be implemented. In addition, any environmental management improvement opportunities can be initiated as a result of incidents or emergencies, monitoring and measurement, audit findings or other reviews. Improvement opportunities may also result in the implementation of corrective/preventative actions.

An Environmental Inspection Report will be issued for deficiencies that are minor in nature but require rectification. An Environmental Improvement Notice will be issued for more serious issues that present an immediate need for action or for repeat non-conformances where a warning is required to be issued for poor performance.

Corrective/preventative actions and improvement opportunities will be identified during weekly environmental inspections and include detail of the issue, action required and timing and responsibilities. The inspection report will be updated with date of close out and any necessary notes.

Non-conforming activities may be stopped, if necessary, by the Environmental Site Representative, Environmental Officer or Project / Site Engineer following consultation with the Construction Manager or delegate. The works will not commence until a corrective / preventative action has been closed out. The RMS Environment Representative may also stop works in these circumstances. In such circumstances a non-conformance report must be prepared in accordance with the Quality Plan.

9 Review and improvement

Management reviews are undertaken as part of the continual improvement process. The management review can consist of group reviews, or executive reviews.

Lendlease's Environmental Site Representative will review the CEMP at least every twelve months from construction commencement. Between the scheduled reviews, a register of issues will be maintained to ensure that any issue raised by internal and external personnel associated with the Project is recorded.

The purpose of the review is to ensure that the system is meeting the requirements of the standards, policies and objectives and, if not, to amend the CEMP to ensure compliance. The Project Director will review and approve changes to the system.

The review will be held every 12 months and will consider:

- A review of the aspects and impacts register, legal register and environmental induction;
- Consideration of monitoring, inspection and audit results;
- Consideration of incidents and any lessons learnt;
- Consideration of any new regulatory issues;
- A review of the effectiveness of erosion and sediment controls;
- Consideration of ERG issues;
- Consideration of changes in operational needs such as resourcing;
- Feedback from management reviews;
- Effectiveness of environmental management documentation implementation;
- Management effectiveness;
- Potential improvements to the environmental management documentation;
- Adequacy of resources;
- Findings of audits;
- Environmental objectives and targets;
- Environmental performance;
- Compliance with legal and other requirements;
- Critical non-conformance or repeated non-conformances;
- Organisation changes; and
- Effectiveness of training and inductions.

The outcomes of the reviews could include amendments to this CEMP and related documentation, revision to the Project's environmental management system, risk assessment review, re-evaluation of the Project objectives and targets as well as feeding into other Project documents.

10 Documentation

10.1 Environmental records

The Environmental Site Representative is responsible for maintaining all environmental management documents as current at the point of use. Types of records include:

- All monitoring, inspection and compliance reports/records;
- Correspondence with public authorities;
- Induction and training records;
- Reports on environmental incidents, other environmental non-conformances, complaints and follow-up action;
- Community engagement information; and
- Minutes of CEMP and construction environmental management system review meetings and evidence of any action taken.

All environmental management documents are subject to ongoing review and continual improvement. This includes times of change to scheduled activities or to legislative or licensing requirements.

Only the Environmental Site Representative, or delegate, has the authority to change any of the environmental management documentation.

10.2 Document control

Lendlease or RMS where relevant, will coordinate the preparation, review and distribution, as appropriate, of the environmental documents listed above. During the Project, the environmental documents will be stored at the main site compound.

Lendlease will implement a document control procedure to control the flow of documents within and between RMS, stakeholders and subcontractors.

The procedure will also ensure that documentation is:

- Developed, reviewed and approved prior to issue;
- Issued for use;
- Controlled and stored for the legally required timeframe;
- Removed from use when superseded or obsolete; and
- Archived.

A register and distribution list will identify the current revision of particular documents or data.

Appendices

Appendix A1

Register of legal and other requirements

Table 1 Legal register

Act	Activity / aspect	Requirement	Reference	Part 5
General				
<i>Environmental Planning and Assessment Act, 1979</i>	All	Comply with the REF approval for the project. Obtain approval for any project modifications that are not consistent with the REF.	Part 5.	Yes
Water				
<i>Water Management Act 2000</i>	Water access and use.	Do not take water from a water source (a lake, river or estuary or place where water occurs naturally on or below the surface of the ground, and includes coastal waters) without an access licence.	S56 S60A S89	No
With the exception of controlled activity approvals, the <i>Water Management Act 2000</i> (WM Act) only applies in relation to those water sources covered by operational water sharing plans – these areas cover most of the State's major regulated river systems.		Do not use of water on land (unless supplied by a water utility, irrigation corporation etc or in accordance with basic landholder rights) without a water use approval.	S91A	
<i>Water Management Act 2000</i>	Water management works	Do not construct/use a water supply work, drainage work or flood work without the appropriate approval.	S90 S91B S91C S91D	No
<i>Water Management Act 2000</i>	Waterfront land.	Do not deposit material, excavate, or remove material within a watercourse bank, shore or bed, or on land 40 metres inland, or interfere with the likely flow of water to such a body, without a controlled activity approval.	S91	No Public authorities are exempt from the need to obtain a controlled activity approval. Water Management

Act	Activity / aspect	Requirement	Reference	Part 5
				(General) Regulation 2004 (cl.39A)
<i>Water Act 1912</i>	Surface water	Obtain a licence or permit for construction or use of 'work' for purposes including the taking and using of water (i.e. license to access surface water)	S21B	Yes
Note that this Act is being progressively repealed by the <i>Water Management Act 2000</i> (WM Act).	Groundwater	Obtain a licence where interference with groundwater is likely to occur.	S112 S121A	S112 does not apply to the Crown. RMS is therefore not required to obtain a licence under this provision.
With the exception of controlled activity approvals, the WM Act only applies in relation to those water sources covered by operational water sharing plans – these areas cover most of the State's major regulated river systems.	Floodplains	Obtain an approval for controlled works. These include works which occur on a designated floodplain, which can prevent land from being flooded or which can affect water flow to or from a river or lake.	S180	An exemption in relation to roads potentially applies – see clause 4 of the Water (Part 8-General) Regulation 1995.
<i>Protection of the Environment Operations Act 1997</i>	Water pollution	Do not cause water pollution (other than to a sewer), except in accordance with the conditions of any EPA licence.	S120 S122	Yes
Noise				
<i>Protection of the Environment Operations Act 1997</i>	Plant maintenance and operation	Do not operate plant if it emits noise caused by poor maintenance or operation.	S139	Yes
<i>Protection of the Environment Operations Act 1997</i>	Materials management	Do not cause noise by failing to properly and efficiently deal with materials.	S140	Yes
Contaminated material				
<i>Protection of the Environment Operations Act 1997</i>	Land pollution	Do not cause or permit land pollution other than under authority of a licence or regulation. (However	S142A – S142E	Yes

Act	Activity / aspect	Requirement	Reference	Part 5
<i>Act 1997</i>		it is not a land pollution offence to place virgin excavated natural material or lawful pesticides and fertilisers on land, or by placing matter on land that has been notified to the EPA as an unlicensed landfill and which is operated in accordance with the regulations.)		
<i>Contaminated Land Management Act 1997</i>	Reporting contamination	<p>Notify the EPA if</p> <p>Contaminants exceed thresholds contained in guidelines or the regulations where contamination has entered or will foreseeably enter neighbouring land, the atmosphere, groundwater or surface water.</p> <p>Contaminants in soil are equal to or exceed guideline levels with respect to the current or approved use of the land.</p> <p>Contamination meets other criteria that may be prescribed by the regulations.</p>	S60	Yes
Biodiversity				
<i>Noxious Weeds Act 1993</i>	Weed control	<p>As a public authority occupier of land, control noxious weeds on the land as required under the control category or categories specified in relation to the weeds concerned.</p> <p>Notify relevant control authority within 3 days of becoming aware that a notifiable weed (W1 weed) is on land. (or ought reasonably to have known).</p> <p>Must not scatter or cause to scatter notifiable weed material.</p>	S13 S16 S30	Yes
<i>National Parks and Wildlife Act 1974</i>	Native fauna	Do not harm any animal that is of a threatened species population or ecological community, or its habitat except in accordance with a planning approval.	Part 8A	Yes

Act	Activity / aspect	Requirement	Reference	Part 5
		Do not harm critical habitat except as in accordance with a planning approval.	S98	Yes
		Do not harm native fauna (other than listed unprotected fauna) except in accordance with a planning approval or licence.	S120, S127, 132C	Yes
<i>Native Vegetation Act 2003</i>	Flora and native vegetation conservation	Only clear native vegetation in accordance with a planning approval or property vegetation plan.	S12	Yes
<i>National Parks and Wildlife Act 1974</i>	Flora and native vegetation conservation	Do not pick protected native plants without a licence.	S117 S131	Yes
<i>Fisheries Management Act 1994</i>	Dredging or reclamation	Provide the Minister for Primary Industries 28 days notice of planned dredging or reclamation work.	S199	Yes
<i>Fisheries Management Act 1994</i>	Mangroves, seagrasses and marine vegetation	Do not harm any mangroves, seagrasses or other marine vegetation on public water land protected by the regulations without a permit.	S205	No
<i>Fisheries Management Act 1994</i>	Fish passage	Do not block fish passage without a permit	S219	No
<i>Environment Protection Biodiversity Conservation Act, 1999 (Commonwealth)</i>	Flora and fauna conservation	Do not kill, injure or take a member of a listed threatened species without a permit.	Part 13	Yes
		Comply with the terms of any EPBC Act approval for the project.		NA
Waste				
<i>Protection of the Environment Operations Act 1997</i>	Littering	Do not litter in a public place or an open private place. Do not litter from a vehicle. Only deposit advertising material in receptacles provided for mail or newspapers or under the door of the premises.	Part 5.6A	Yes

Act	Activity / aspect	Requirement	Reference	Part 5
		Do not deposit advertising material on or in vehicles.		
<i>Protection of the Environment Operations Act 1997</i>	Waste and transportation	<p>Do not undertake a scheduled waste activity unless in accordance with an environmental protection licence.</p> <p>A licence must be obtained when construction and demolition wastes are applied to land under certain circumstances. This includes the reincorporation of crushed road base material back into roads and the placing of excess fill material onto properties. A licence is not required if the material:</p> <ul style="list-style-type: none"> • Is VENM. • Does not exceed 200 tonnes in the Sydney, Newcastle and Wollongong areas, or 20,000 tonnes outside these areas. • Is covered by a “general exemption”. Current exempted materials are ENM, recycled aggregates and raw mulch. These exemptions are conditional and require some chemical testing of materials before they are placed onto land. • If the material is covered by a “specific exemption’ issued by the EPA. • A licence must be obtained if more than 2,500 tonnes (or cubic metres) is stored on a stockpile site at any one time, or more than 30,000 tonnes of waste is received per year from off site. 	Part 3.2 Schedule 1	Yes
		Only transport waste to a facility that can lawfully accept the waste.	S143	Yes
		Do not dispose of waste in a manner that harms or is likely to harm the environment.	S115	Yes

Act	Activity / aspect	Requirement	Reference	Part 5
Protection of the Environment Operations (Waste) Regulation 2005	Waste and transportation	Comply with general requirements for the transport of waste. For example, any vehicle used by the person to transport waste must be kept in a clean condition and be maintained so as to prevent spillage of waste. For some wastes only licensed transporters can be used.	Regulation cl.49	Yes
		Comply with record keeping requirements in relation to the transport of certain types of waste.	Regulation Part 3	Yes
Heritage				
<i>Heritage Act 1977</i>	Heritage	Do not undertake an activity that will affect a place, building, work, relic, moveable object or precinct which is subject to an Interim Heritage Order or is listed on the State Heritage Register without approval from the Heritage Council.	S56-57	No
		Do not disturb or excavate land with knowledge or reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed; or Do not disturb or excavate land on where a relic has been discovered or exposed.	S139	No
		Notify the heritage Council on discovery of a relic	S146	Yes
<i>National Parks and Wildlife Act 1974</i>	Aboriginal places and objects	Do not harm or desecrate an Aboriginal object or Aboriginal place without consent.	S86 S90	No
		Notify the NPWS within reasonable time of becoming aware of the location or discovery of certain Aboriginal objects.	S89A	Yes
<i>Aboriginal and Torres Strait Islander Heritage</i>	Protection of areas and objects	Report any discovery of Aboriginal remains to the Federal Minister for the Environment and Heritage.	S20	Yes

Act	Activity / aspect	Requirement	Reference	Part 5
<i>Protection Act 1984 (Commonwealth)</i>		Comply with the provisions of any declaration in relation to a significant Aboriginal area or object.	S22	Yes
General				
<i>Protection of the Environment Operations Act 1997</i>	Harming the environment	Do not risk harming the environment by wilfully or negligently: <ul style="list-style-type: none"> • disposing of waste unlawfully. • causing any substance to leak, spill or otherwise escape (whether or not from a container); or • emitting an ozone depleting substance 	S115 S116 S117	Yes
<i>Protection of the Environment Operations Act 1997</i>	Control equipment	Properly and efficiently maintain and operate any installed pollution control equipment (including monitoring devices).	S167	Yes
<i>Protection of the Environment Operations Act 1997</i>	Notification of pollution incidents	Notify the EPA immediately of pollution incidents where material harm to the environment is caused or threatened.	S148	Yes
<i>Protection of the Environment Operations Act 1997</i>	Site licensing	Do not carry out or allow an activity listed in Schedule 1, or carry out work to enable such an activity, unless the premises are licensed by the EPA. This applies to: road construction: meaning the construction, widening or re-routing of roads if it results in the existence of 4 or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for 1 kilometres of their length in the metropolitan area, or 5 kilometres in length in any other area, where the road is classified, or proposed to be classified, as a freeway or tollway under the Roads Act 1993.	S47 S48	Yes
<i>Environmentally Hazardous Chemicals</i>	Hazards and risks	Obtain a licence to undertake prescribed activities involving environmentally hazardous chemicals or	S28	Yes

Act	Activity / aspect	Requirement	Reference	Part 5
<i>Act, 1985</i>		declared chemical wastes.		
<i>Dangerous Goods (Road and Rail Transport) Act 2008</i>	Hazards and risks	Ensure that dangerous goods are transported in a safe manner.	S9	Yes
<i>Pesticides Act 1999</i>	Hazards and risks	Use of pesticides in an environmentally sensitive manner: <ul style="list-style-type: none"> • Do not use an unregistered pesticide without a permit. • Read the label or permit for the pesticide. • Use registered pesticides in accordance with instructions on the label. • Do not use any restricted pesticide unless authorised by a certificate of competency or a pesticide control order under the Act. • Compliance with pesticide codes of practice is required. 	S12 S13 S14 S15 S17	Yes
<i>National Greenhouse and Energy Reporting Act, 2007 and Regulations 2008</i>	Greenhouse gas emissions	Accounting and reporting of greenhouse gases produced and energy consumed during construction. Applicability dependent on thresholds.	-	Yes

Table 2 RMS G36 requirements

G36 reference	Requirement	Relevant section of CEMP or supporting documentation
Section 3	<i>Implement a Contractors Environmental Management System (EMS)</i>	
3.1	<i>An environmental policy must be included.</i>	<i>CEMP, Appendix A3</i>
3.2.1	<i>Undertake an Environmental Risk Assessment Workshop</i>	<i>CEMP, Section 3.4</i>
3.2.2	<i>CEMP must identify environmental obligations</i>	<i>CEMP, Section 3.1</i>
3.2.3	<i>CEMP must include objectives and targets</i>	<i>CEMP, Section 3.6</i>
3.2.4	<i>Outlines requirements for inclusion in EWMS</i>	<i>CEMP, Section 4.1.3</i>
3.3 a)	<i>Nominate the Environmental Manager directly responsible for ensuring that the requirements of the CEMS are implemented and maintained.</i>	<i>CEMP, Section 4.2.6</i>
3.3 b)	<i>Indicate how suitable resources will be assigned to ensure that the CEMP is fully implemented.</i>	<i>CEMP, Section 4.2</i>
3.5	<i>Implement environmental training and details requirements of induction.</i>	<i>CEMP, Section 5</i>
3.6	<i>Outlines approved hours of work. 7:00am – 6:00pm mon –fri 8:00am – 1:00pm Saturday. Requires CEMP to provide procedure for work outside of hours.</i>	<i>Noise and Vibration Management Plan (NVMP)</i>
3.7	<i>Requires two persons to be made available as EPA contacts. Requirement to notify RMS representative of any site visit by EPA and to prepare a reports of the purpose and outcome of EPA visit. Report to be submitted within one working day of EPA visit.</i>	<i>CEMP, Contacts</i>
3.7.2	<i>Notify residents of new or changed construction activities at least 5 working days prior to commencing works.</i>	<i>Community Involvement Plan</i>

G36 reference	Requirement	Relevant section of CEMP or supporting documentation
3.7.2.3	<i>Inform RMS representative and residents of proposed work out of hours in accordance with EPL.</i>	<i>Community Involvement Plan and NVMP</i>
3.7.3	<i>Requires report to RMS within 1 day of receiving a complaint. Requires register of complaints to be kept and details requirements for inclusion in register.</i>	<i>Community Involvement Plan</i>
3.8	<i>Emergency planning requirements</i>	<i>CEMP, Section 7.1</i>
3.9	<i>Requires environmental inspections, monitoring and audits</i>	<i>CEMP, Section 8</i>
3.10	<i>Determines hold point if noncompliant with specification or CEMP.</i>	<i>CEMP, Section 8.6</i>
3.11	<i>Requires records to be kept.</i>	<i>CEMP, Section 10</i>
3.12	<i>Required periodic review of CEMP.</i>	<i>CEMP, Section 9</i>
4.2.2	<i>Requires Contaminated land management plan to be included in CEMP</i>	<i>Contaminated Land Management Plan (CLMP)</i>
4.2.3	<i>Requires unexpected find of contamination to be notified to RMS.</i>	<i>CLMP</i>
4.2.4	<i>Requires remediation action plan to be provided for contamination.</i>	<i>CLMP</i>
4.2.5	<i>Implement control measures to divert or capture run off from contaminated area.</i>	<i>CLMP</i>
4.3	<i>Prepare an Incident Emergency Spill Plan as part of the CEMP.</i>	<i>Appendix A7</i>
4.4	<i>Prepare and Air quality Management Plan</i>	<i>Air Quality Management Plan (AQMP)</i>
4.5	<i>Comply with requirements or rural Fires Act 1997</i>	<i>CEMP</i>
4.6	<i>Prepare a Noise Management Plan</i>	<i>Noise and Vibration Management Plan (NVMP)</i>
4.7	<i>Implement measures to protect against ground vibration and air blast.</i>	<i>NVMP</i>

G36 reference	Requirement	Relevant section of CEMP or supporting documentation
4.8	<i>Prepare a Flora and Fauna Management Plan</i>	<i>Flora and Fauna Management Plan (FFMP)</i>
4.9	<i>Prepare an Aboriginal Heritage Management Plan</i>	<i>Heritage Management Plan (HMP)</i>
4.10	<i>Prepare an Non – aboriginal Heritage Management Plan</i>	<i>Heritage Management Plan (HMP)</i>
4.11	<i>Prepare a Waste and Resource Management Plan</i>	<i>Waste and Resource Management Plan (WRMP)</i>
4.11.2	<i>Implement a Waste Management register</i>	<i>WRMP</i>
4.12	<i>Maintain records or the use of pesticides</i>	<i>FFMP</i>
4.13	<i>Identify the location of environmentally sensitive areas and adjacent sensitive receivers.</i>	<i>CEMP Appendix A 5 : Sensitive Area Plans</i>
4.14	<i>Prepare an environmental incident and investigation procedure. Provide notification to RMS of incidents with 24 hours.</i>	<i>CEMP, Section 7</i>
4.15.2	<i>Prepare pre construction land condition assessment of any land made available by RMS for site facilities.</i>	<i>CEMP, Section 3.7.4</i>
4.15.3	<i>Prepare post construction land conditions assessment of land provided by RMS utilised for site facilities</i>	<i>CEMP, Section 3.7.4</i>
4.16	<i>Reinstate all disturbed areas both on and off the Site.</i>	<i>Urban Design Plan</i>
4.17	<i>Identify any opportunities to reduce greenhouse gas emissions and report on proposed initiatives.</i>	<i>WRMP</i>
5	<i>Allows RMS to conduct regular surveillance and inspections or Site at any time.</i>	<i>CEMP, Section 8.1.2</i>

Table 3 RMS G38 requirements

G38 reference	Requirement	Relevant section of CEMP or supporting documentation
2.1.1	<i>Implement a Soil and Water Management Plan</i>	<i>Soil and Water Management Plan (SWMP)</i>
2.2.1	<i>Prepare an Erosion and Sediment Control Plan in accordance with blue book requirements.</i>	<i>SWMP</i>
2.3	<i>Prepare a water quality monitoring program as a supplement to ESCP.</i>	<i>SWMP</i>
3.1.1	<i>Implement erosion and sediment control measures</i>	<i>SWMP</i>
3.1.2	<i>Maintain a register or inspection and maintenance of erosion and sediment control measures.</i>	<i>SWMP</i>
3.2	<i>Establish and maintain erosion and sediment control measure around stockpiles.</i>	<i>SWMP</i>
3.3	<i>Prepare a procedure to manage tannins from mulch stockpiles.</i>	<i>SWMP</i>
3.5.1	<i>Conduct dewatering to not cause erosion or pollute the environment</i>	<i>SWMP</i>
3.5.2	<i>Prepare a procedure for dewatering activities as part of the SWMP or ESCP.</i>	<i>SWMP</i>
3.5.3	<i>Adequately train and induct personnel responsible for dewatering</i>	<i>SWMP</i>
3.5.4	<i>Prior to dewatering inspect entire system. Supervise dewatering if possible.</i>	<i>SWMP</i>
3.5.5	<i>Keep records of all dewatering</i>	<i>SWMP</i>
3.6.1	<i>Prepare an EWMS for work within waterways.</i>	<i>EWMS Register</i>
3.6.2	<i>Provide temporary waterway crossings to maintain flow in the waterway.</i>	<i>SWMP</i>
3.7.2	<i>Construct operational basins in accordance with design documentation.</i>	<i>Design Documentation</i>
3.7.3	<i>Construct sediment retention basins in accordance with blue book guidelines.</i>	<i>SWMP</i>
3.7.3	<i>Construct inlets, outlets and spillways as soon as possible in accordance with specification RMS D&C R55</i>	<i>SWMP</i>

G38 reference	Requirement	Relevant section of CEMP or supporting documentation
3.7.4	<p><i>Flocculate basins and achieve</i></p> <ul style="list-style-type: none"> • <i>TSS:50mg/L</i> • <i>pH 6.5 -8.5</i> • <i>no visible oil and grease</i> <p><i>prior to dewatering.</i></p>	SWMP
3.7.5	<i>Clean out sediment basins as a minimum whenever sediment exceeds 60%</i>	SWMP
3.7.6	<i>Remove all construction sediment retention basins and sediment traps before construction completion.</i>	SWMP

Table 4 RMS G40 Requirements

G40 reference	Requirement	Relevant section of CEMP or supporting documentation
2.1	<p><i>To ensure vegetation that is retained throughout construction is protected, a Working around trees guideline has been prepared for the project and will be implemented during construction (Appendix E of FFMP). Consistent with RMS G40 the following measures will be implemented:</i></p> <ul style="list-style-type: none"> - <i>Protective fencing around trees to be retained clear of the canopy line;</i> - <i>Ensuring no vehicles are parked, and no material is stockpiled within the canopy line of trees to be retained;</i> - <i>Avoiding excavation and placing of fill near retained trees without the advice of the project ecologist; and</i> - <i>Routing haul roads and access tracks clear of the canopy.</i> 	FFMP
2.4	<p><i>Existing trees, grasses and other ground cover will be retained within 15m of rivers, creeks and watercourses and in all drainage lines until immediately before construction commences. With the exception of the construction of an access track and temporary crossing compliant with RMS G38.</i></p> <p><i>Trees felled in this area will be done manually, leaving stump and root ball intact until</i></p>	FFMP

G40 reference	Requirement	Relevant section of CEMP or supporting documentation
	<i>immediately prior to construction commencing.</i>	

Table 5 RMS G10 Requirements

G10 reference	Requirement	Relevant section of CEMP or supporting documentation
7.1	<i>Refer to Traffic Management and Safety Plan for monitoring of roadways.</i>	<i>TMP</i>

Appendix A2

Environmental aspects and impacts register

This Environmental Aspect and Impact Register has been prepared by the Northern Road Stage 3 North project team in accordance with LLE701 Risk Management in Project Delivery Procedure to identify environmental risks associated with the delivery of the Project.

Furthermore, risks identified within the Environmental Risk Workshop undertaken on the 9th of February 2017 have been included.

The identification of significant construction activities and associated impacts that could eventuate during construction of the Project is central to the selection of appropriate environmental safeguards.

The risk management process involved an assessment of all specific project activities/aspects in or near environmentally sensitive areas and resulted in the development of a list of environmental risks (effects and impacts) and a corresponding risk mitigation strategy and risk ranking. Each environmental risk was categorised, based on the following:

- The environmental aspect;
- Relative scale of the potential impact;
- Type of potential impact; and
- Likelihood of occurrence.

The identification of risks included a review of the proposed works, previously completed or current projects, the REF and supporting documentation.

Table 1 Risk register

Issue	Construction activity / aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
Air quality	General earthworks. Vegetation clearing.	Complaints from neighbours, including loss of amenity, dust in living areas, swimming pools.	B (moderate)	Induct personnel on air quality issues and safeguards. Use water carts on unsealed surfaces and stockpiles.	C (Low)	AQMP EWMS
	Open excavation works. Spoil handling.	Potential adverse health effects.	C (Low)	Utilise safe dust suppressants to reduce dust generation. Use street sweepers to reduce dust in areas of dust build up.	C (Low)	SWMP CLMP (AMP)
	Stockpiling Vehicular movements on unsealed roads.	Degradation of water quality and other aspects of the natural environment.	C (Low)	Modify or cease operations during high winds. All trucks carrying material with the potential to generate dust on public roads to cover loads.	C (Low)	Complaints procedure Induction
	Material haulage Vehicle emissions. Handling of chemicals, waste, hazardous goods and contaminated material. Slaking of Lime	Health risks to neighbours and members of the public from release of gases and/or smoke.	C (Low)	Vehicles, equipment, machinery used and all facilities – designed, operated and maintained to control the emission of smoke, dust, odours and fumes. All disturbed areas stabilised, revegetated and/or landscaped as soon as practicable. Minimise tracked mud/dust on public roads. No burning or incineration of any material at any time. Dust monitoring. Avoid “hot-work” during total fire bans and obtain any necessary permits/exemptions from the Rural Fire Service. WorkCover licensing requirements will be complied with for the storage of hazardous substances and dangerous goods. Material Safety Data Sheets (MSDSs) will be obtained, complied with and retained on site for all required chemicals. Pesticide use will be in accordance with the Pesticides Act, 1999. Asbestos removal works will be undertaken with relevant community consultation and in accordance with the Asbestos Management Plan (AMP) Long term stockpiles will be stabilized with a soil binding polymer or sterile cover crop. The community will be notified of the location and contents of stockpiles where relevant	C (Low)	
Biodiversity	Clearing of native vegetation.	Loss of habitat for threatened species.	A (High)	Induct personnel on biodiversity issues and mitigation measures.	B (moderate)	FFMP EWMS
	Stockpile / haul road construction near vegetation. Works near and in creeks / temporary	Potential longer term impacts associated with increased habitat fragmentation.	B (moderate)	Prior to construction – identify and fence all flora and fauna habitat areas to be retained as per sensitive area plans/or detailed design documentation.	C (Low)	RMS Biodiversity Guidelines

Issue	Construction activity / aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
	<p>crossings.</p> <p>General earthworks near vegetation.</p> <p>Vehicular movements.</p> <p>Open excavation works.</p>	Direct impact to flora or fauna during construction.	B (moderate)	<p>Retain clearing limit delineation throughout works or until permanent fencing is installed.</p> <p>Minimise clearing of all vegetation and undertake progressive revegetation.</p> <p>Precondition surveys will be undertaken to remove existing weeds, to be undertaken during pre-clearing assessments.</p> <p>Implement ongoing weed monitoring and management programs.</p> <p>Disturbed areas will be monitored for effective soil stabilisation and restoration / rehabilitation.</p> <p>Implement a staged clearing process and undertake fauna rescue during clearing as required.</p> <p>Engage arborist to provide advice on tree health and provide ongoing advice where suspect trees are identified outside the LOC.</p> <p>Implement washing procedures to prevent the spread of pests and disease where applicable.</p> <p>Undertake monitoring as required in the Nest Box Plan of Management.</p> <p>Suitably qualified Project Ecologist to undertake pre-clearing assessments and faun handling/relocation.</p> <p>Implement best practice methods for working in aquatic habitat where required.</p> <p>All imported soil will be declared weed free.</p>	C (Low)	<p>Fauna handling procedure</p> <p>Induction</p>
Aboriginal heritage	<p>Early works including non-substantial construction activities e.g. services relocations.</p> <p>Initial clearing and/or grubbing of vegetation.</p> <p>Initial removal of topsoil.</p> <p>Construction of site compounds and spoil / mulch and / or equipment stockpile areas.</p> <p>Temporary access roads during construction.</p>	Impact to identified heritage items outside the provisions of the AHIP(s).	A (High)	<p>Prior to construction – identify and assess Aboriginal heritage items on proposed sites and ensure impacts are compliant with the AHIP.</p> <p>Induct personnel on heritage issues and mitigation measures.</p> <p>Protect identified heritage items to be retained with protective fencing or flagging and signage from being disturbed during construction.</p> <p>If design changes or construction activities impact on areas outside of those identified in the REF and/or AHIP, OEH and relevant Aboriginal groups will be consulted and approval obtained.</p> <p>Implement unexpected find procedures as required.</p>	B (moderate)	<p>AHIP(s)</p> <p>HMP</p> <p>RMS Unexpected Heritage Items Procedure</p> <p>Cultural Awareness Training</p> <p>Induction</p>
		Impact (machinery, procedure vibration, stockpiles) during the construction period to identified sites	B (Moderate)		C (Low)	
		Impact to undiscovered or undocumented heritage sites	B (moderate)		C (Low)	
		Change in visual integrity of cultural area	B (moderate)		C (Low)	
		Finding / disturbing burials or human remains	C (Low)		C (Low)	

Issue	Construction activity / aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
Non-Aboriginal heritage	<p>Early works including non-substantial construction activities e.g. services relocations.</p> <p>Initial clearing and/or grubbing of vegetation.</p> <p>Initial removal of topsoil.</p> <p>Construction of site compounds and spoil / mulch and / or equipment stockpile areas.</p> <p>Temporary access roads during construction.</p>	Impact to undiscovered or undocumented heritage sites.	B (moderate)	<p>Prior to construction – identify and assess non- Aboriginal heritage items on proposed sites and predict potential impacts.</p> <p>Induct personnel on heritage issues and safeguards.</p> <p>Protect identified heritage items with protective fencing or flagging from being disturbed during construction.</p> <p>Undertake archival recording as specified in the HMP.</p> <p>Regular inspection of heritage protection fencing.</p> <p>Implement unexpected find procedures as required.</p> <p>Landholder consultation.</p>	C (Low)	<p>HMP</p> <p>Induction</p> <p>RMS Unexpected Heritage Items Procedure</p>
Noise and vibration	Site establishment.	Noise impacts on sensitive receivers during construction.	A (High)	Liaise (agreements where applicable) with local communities and affected residents.	B(moderate)	NVMP

Issue	Construction activity / aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
	<p>Earthworks.</p> <p>Bridge works.</p> <p>Piling.</p> <p>Asphalt Placement</p> <p>Asphalt Profiling</p> <p>Saw cutting.</p> <p>Crushing and screening.</p> <p>Rock hammering and drilling.</p> <p>Traffic switches</p> <p>Demolition</p>	Vibration impacts on nearby receptors.	A (High)	<p>Adherence to working hours in NVMP unless otherwise approved.</p> <p>Implement operational noise mitigation measures as early as possible.</p> <p>Respite periods for particularly noisy/ short duration activities (in accordance with regulatory guidelines and/or NVMP).</p> <p>Construction equipment selected, operated and maintained to minimise noise impacts and where necessary fitted with silencers and "smart" reversing alarms.</p> <p>Reduced use of horns to signal trucks loaded where residences close by.</p> <p>Place as much distance between construction equipment and sensitive receivers as possible.</p> <p>Schedule construction of any permanent noise walls and any residential house treatments as early as possible.</p> <p>Minimise impacts from construction activities through the use of effective shielding or other mitigation measures where reasonable and feasible.</p> <p>Noise monitoring to monitor predicted verses actual noise levels.</p> <p>Implementing management measures where regenerated noise is found to be excessive and agreements are not in place.</p> <p>Managing construction vehicle routes and speed of vehicles.</p> <p>Modelling noise vibration impacts to inform notification to sensitive receivers.</p> <p>Establish and maintain complaints management system.</p> <p>Building condition reports on potentially impacted buildings as required by REF.</p> <p>Notification of sensitive receivers at least 5 days prior to commencement of works that may have an adverse noise and vibration impact.</p> <p>Undertake works outside of standard construction hours in accordance with the Out of Hours Protocol and the project EPL Conditions.</p>	B(moderate)	<p>EWMS</p> <p>Negotiated agreements</p> <p>Environment Protection Licence</p> <p>Complaints procedure</p> <p>Community and Stakeholder Management Plan</p> <p>Monitoring Records</p> <p>Induction</p> <p>OOH Works Protocol</p>
Soil and water quality	Clearing and grubbing.	Erosion and movement of soils.	A (High)	Site specific Erosion and Sediment Control Plans will be prepared and implemented for each work area.	B (moderate)	SWMP
	Earthworks.					EWMS
	Storage of fuels, chemicals and other dangerous goods.	Captured dirty water discharge from basins.	A (High)	Appropriately designed erosion control structures will be installed, maintained and cleaned regularly.	B (moderate)	Stockpile Management Protocol
	Maintenance of plant and equipment, including servicing and refuelling.	Dirty water not captured and leaves site.	A (High)	Locate spoil stockpiles, plant and equipment away from drainage lines, watercourses or stormwater drains in accordance with established criteria.	B (moderate)	Induction
	Sediment basin management.					Targeted ERS&D training
	Drainage works.	Contamination of sediment basins and /or waterways from spills.	B (moderate)	Install clean water diversions to ensure clean and dirty water are not mixed on site.	C (Low)	CSMP
						Unexpected Discovery of Contaminated Land Procedure

Issue	Construction activity / aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
	Concrete works. Temp access road construction / removal from waterway areas. Bridge construction.	Disturbance to creeks from access road construction. Haul road washout from flood event.	A (High) A (High)	Storage, compound access and parking areas sealed, as early during works as practicable. Chemical storage meets WorkCover and EPA bunding/storage requirements. Wheel mud reduction/ cleaning measures at exit of all sites where required. Temporary waterway crossings are established to minimise risk of fines in waterways and designed to address appropriate flow volumes. Buffer zones of vegetation will be maintained adjacent to waterways for as long as practical. Rehabilitation and landscaping works of disturbed areas undertaken as soon as the works are completed and/or progressively where possible. Implement concrete washout process within bunded areas. Provide and maintain spill kits. Undertake regular testing of the Project PRIMP as required by the PRIMP. Design drainage to maximise dirty water to sediment basins. Engage soil conservationist to advise on ERSED issues. Work crews undertaking ERSED works will be employed and trained in ERSED requirements. Install signage at EPL discharge points to assist workers to understand implications of dirty water release in sensitive areas. Implement RMS Dewatering guidelines. Implement appropriate procedures to identify, contain, handle and manage contaminated material. Prepare and implement Contaminated Site Management Plan (CSMP) to manage known and unknown contaminated sites in accordance with the REF and G36.	B (moderate) B (moderate) C (Low)	
Water management	Water use for dust suppression, washing of plant and equipment, landscaping, compaction etc. Water use for drinking water, hand washing, toilets etc. General earthworks and construction.	Changes in the recharge and runoff patterns as a result of construction and contamination of surface water offsite	B (moderate)	Construct "Turkeys Nest" type basins for storing captured stormwater during rainfall events in accordance with the Blue Book. Prioritise the use of captured stormwater over other sources. Re-use / recycle water where possible.	C (Low) C (Low)	SWMP EWMS Induction

Issue	Construction activity / aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
Mulch and tannin	Vegetation clearing and storage of mulch	Tannin impacts on waterways.	B (Moderate)	Implement the RMS mulch and tannin protocol.	C (Low)	SWMP
Flooding	Waterway crossings. Transverse drainage. Bridge pier locations. Bridge openings. Haul and bridge roads.	Restriction to flow paths causing localised flooding.	B (moderate)	Design drainage structures to cope with design flood events and REF commitments.	C (Low)	SWMP EWMS
		Changes to flood levels – increased impact to receivers.	B (moderate)	Locate compounds / plant / storage above flood level events stated in the REF.	C (Low)	
		Stormwater inflow to site – clean stormwater getting mixed with dirty site water.	A (High)	Design and build temporary crossings to be stabilised and minimise scour / erosion during flood events. Install scour protection as early as possible.	B (moderate)	
		Flood damage to plant / equipment / satellite compounds.	B (moderate)	Design and construct Project in accordance with REF.	C (Low)	
		Erosion of haul/ access road during large flood events.	A (High)		B(moderate)	
Spoil and Fill	Cuts. Fill areas. Haulage of spoil and fill. Stockpiling. Spoil areas.	Demand on local resources – local quarries / suppliers.	B (moderate)	Refer to mitigation measures stated in the Air Quality (Dust) row above and Traffic and Transport Management row below. Off site spoil movements to be monitored and tracked on the site waste disposal register as per the EPA guidelines, including characterisation of the spoil to determine correct disposal locations and volumes. Spoil to be beneficially reused, on or off site, where applicable and meeting environmental requirements. Includes reuse of excavated material, either as fill, or as earth mounds for noise control, or beautification, shielding or revegetation mounds on site. All loads accessing public roads to be covered to prevent any loss of material, which may cause driver safety issues. Only locate stockpiles in accordance with criteria in CEMP. Prepare and implement CSMP to identify, contain, handle and management contaminated material. Classify and dispose of any contaminated land in accordance with EPA guidelines. Any recycled crushed material must be spot checked for any dirty/contaminated material before use	C (Low)	SWMP EWMS AQMP CEMP CSMP Unexpected Discovery of Contaminated Land Procedure
		ERSED issues from cuts / batters / stockpiles.	A (High)		B (moderate)	
		Sensitive area damage from stockpiling.	A (High)		B (moderate)	
		Disturbance on unidentified contaminated land e.g. historical agricultural practice such as tick dips.	B (moderate)		C (Low)	
Contaminated Land	Cuts. Fill areas. Haulage of spoil and fill. Stockpiling. Spoil areas.	Contamination from ACM or coal tar	B (moderate)	RMS Unexpected Discovery of Contaminated Land Procedure. Induction will include places of potential contaminated material and what to do if unexpected material is discovered	C (low)	EWMS SWMP Unexpected Discovery of Contaminated Land Procedure
Waste Management	Generation of waste during construction activities including building	Excessive waste being directed to landfill.	B (moderate)	Apply waste hierarchy principles – avoid-reduce-reuse-recycle. Waste materials contained in waste bins or other suitable containers,	C (Low)	WRMP

Issue	Construction activity / aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
	materials, excess unsuitable spoil material, vegetation material.	Incorrect disposal of contaminated waste. Not meeting POEO VENM, ENM and mulch requirements.	A (High)	and collected for recycling, reuse or disposal by the licensed waste contractor. Separate, contain, manage and dispose contaminated waste to prevent migration and further contamination whilst maintaining compliance with EPA requirements. Label and store all liquid waste containers in a bunded area prior to removal off-site. Undertake inspections of the worksite and waste storage areas to ensure litter / debris is regularly cleaned up and contained on site. Establish recycling system early on in Project. Establish good segregation areas for concrete and waste concrete is not to be transported off site for land disposal. Section 143 Notices Under the PoEO Act and provision of a letter to landholder highlighting the need for a "s.143 Notice", the Contractor's role and the respective roles of the RMS and the landholder in ensuring that the waste is appropriately managed. Consider types of waste, how each waste type will be used as a beneficial use and address in the approvals that no other type of waste will be used.	B (moderate)	EWMS Waste reporting register
Energy	Extraction / processing / transportation of materials. Fuel and energy use. Vegetation removal.	Excess energy consumption and greenhouse gas generation during construction	B (moderate)	Use local material and personnel where possible to reduce transport emissions. Restrict vegetation clearance to the minimum required. Conduct energy audits during the project to identify and address energy waste.	B (moderate)	FFMP Equipment maintenance procedures. Induction
Traffic and transport	Haulage of material. Import of material / plant / equipment. Travel to / from site.	Accidents - Safety of commuters, pedestrians, cyclists, contractors and subcontractors. Delays Disruption to property owners between Maxwell Street/ Bringelly Road and Smith Street.	A (High)	Develop and update Traffic Management Plans for all stages of work. Identify and assess roads likely to be affected by Project construction and develop methods to minimise traffic increases. Identify and consult with receivers likely to be impacted by loss of storage and/or vehicular manoeuvrability. Undertake before and after dilapidation surveys on local roads Traffic controllers and / or signage for both egress and ingress off the work sites. All vehicles carrying materials to be adequately covered to prevent any loss of material, which may cause driver safety issues.	B (moderate)	TMP Community and Stakeholder Management Plan Induction
Visual Impact, Landscaping	Cuttings and cut finishes. Bridge design Revegetation /	General public aesthetic impacts	B (moderate)	Landscape and rehabilitation plan including extensive seeding planting in required areas will be developed and implemented.	C (Low)	Urban Design Management Plan (UDMP)

Issue	Construction activity / aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures (to be considered and where applicable further developed in associated management documents)	Risk level following mitigation	Management Documents / Training Required
and Rehabilitation	landscaping. Removal of visually prominent native vegetation. Evening / night works. Rehabilitation of disturbed land.		A (High)	Landscape treatments will incorporate the surrounding landscape types and vegetation patterns and address view scapes. Embankments and cuttings will be stabilised by the use of appropriate landscape treatments. The use of night-lighting will be minimised where possible during the construction phase and directed away from residential areas and sensitive receivers. Solar powered day makers will be used where reasonable. Site compounds and areas surrounding them will be kept tidy and be regularly cleaned and maintained. Undertake landscaping and revegetation works in accordance with the approved Urban Design Management Plan. Monitoring and weed control.	B (moderate)	
General Environmental Management	Environmental management / supervision. Incident response.	Non-compliance with CEMP, REF, legislative requirement.	A (High)	Ensure all environmental personnel are trained in the CEMP and all associated documents.	B (moderate)	CEMP and Sub-plans Procedures RMS Incident Management Guidelines/ procedures EWMS Compliance Tracking Register Internal / external audits
		Failure to follow requirements of strategies / procedures.	A (High)	EC / EM diligence in including requirements from CEMP and procedures into EWMS and training. Regular review of environmental management documents.	B (moderate)	
		Failure to report environmental issues.	A (High)	Regular review of compliance with environmental management documents, such as REF.	B (moderate)	
		Inconsistent advice to construction personnel.	B (moderate)	Regular environment team meetings. Environmental Manager to be involved in design and construction meetings.	C (Low)	
		Inadequate response to environmental incident/ emergency.	A (High)	Training in environmental emergency response. 12 month PIRP compliance check Ensure NCR process is followed.	B (moderate)	
Socioeconomic	All stages of construction	Temporary restricted access to properties due to construction works.	A(High)	<ul style="list-style-type: none"> Maintain access or provide alternative access to individual landholdings at all times. Ensure that there is constant access to business through the utilisation of service roads. 	B(moderate)	TMP Community and stakeholder Management Plan Driveway strategy
		Interference with maritime movements within the Wilson River due to the construction of the coffer dam.	B (moderate)	<ul style="list-style-type: none"> Rigorous community notification and update procedures. Facilitate handling of fauna on neighbouring properties 	C (Low)	

Environment Engineering, Australia

Lendlease's Engineering business aspires to be an organisation that protects and sustains the natural environment.

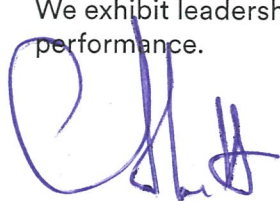
We comply with environmental legislation, regulations and other requirements as a minimum, and support initiatives that go beyond compliance requirements. We measure and report our performance against internationally recognised standards and we operate and maintain a robust Environmental Management System.

To achieve our objective of protecting and sustaining the natural environment, we will:

- Identify and manage risks to, and impacts on, the environment arising from our activities.
- Implement, monitor and review the Environmental Management System including, this policy, environmental objectives, targets and outcomes to ensure continual improvement.
- Foster environmental awareness and encourage a genuine respect for environmental protection in our employees and subcontractors, and provide ongoing training where necessary.
- Implement initiatives to reduce energy and water consumption across our business operations.
- Minimise waste generation and maximise resource recovery within our waste streams.
- Develop and use best practice construction techniques to achieve a positive environmental outcome, including the prevention of pollution.
- Communicate openly with clients, governments and the community on environmental issues.

We are committed to demonstrating a positive impact on the environment in all our design and construction activities, as well as in our supply chain.

We exhibit leadership in sustainability through continual improvement of our environmental performance.



Craig Laslett
CEO Engineering & Services
March 2017

Appendix A4

Ancillary facilities assessment criteria

Revision history

Revision	Date	Description	Approval
0	28/11/2016	Draft	

Table 1 Ancillary facilities assessment criteria

Ref no.	Location (chainage)	Purpose	Ancillary facilities requirements (GEN9)							Is criteria met (Y/N)?	Mitigation measures
			a) Not prone to flash flooding	b) More than 40 metres from a watercourse, or 50 metres in the case of the tributary of Surveyors Creek at Glenmore Parkway (Type 1 Fish Habitat).	c) More than 50 metres from the nearest dwelling (where possible, unless otherwise approved by Roads and Maritime)	d) In previously disturbed areas that do not require the clearing of native vegetation	e) In plain view of the public to deter theft and illegal dumping.	f) Outside the drip line of trees and on level ground wherever possible	g) Located on relatively level ground and away from areas of heritage conservation value.		
1	South of Wentworth Road (Lot 2 DP 711076)	Daytime operations 7am to 6pm: <ul style="list-style-type: none"> Recycled concrete stockpile area Plant and equipment parking area Material laydown and storage area 	√	√	√	√	√	√	√	Y	
2	South of Wentworth Road, corner of The Northern Road (Lot 40 DP 853672)	<ul style="list-style-type: none"> Materials laydown and storage Delivery of materials Loading of material into tipper trucks for delivery to Site 	√	√	X	√	√	√	√	N	Stakeholder consultation Noise barriers if required Restricted operating activities

3	North of Wentworth Road (Lot 5 DP 548308)	<p>Daytime operations 7am to 6pm:</p> <ul style="list-style-type: none"> • Office, crib sheds, parking, first aid post, daytime deliveries • Arrival and departure of office staff, workforce and daytime deliveries to compound • Plant storage, materials laydown and storage, stockpiling and construction parking • Delivery of excavated material from site by tipper trucks • General stockpile management and loading of final product into tipper trucks for delivery to site • General delivery of other construction materials for storage. <p>Evening and night operations:</p> <ul style="list-style-type: none"> • Arrival and departure of workforce and night time deliveries to compound • Loading of material into tipper trucks for delivery to site. 	√	√	X	√	√	√	√	N	Erect noise barrier between compound and sensitive receiver. Ongoing consultation with potentially effected residences.
4	South of M4 Westbound offramp (Lot 27 DP 238741).	<p>Daytime operations 7am to 6pm:</p> <ul style="list-style-type: none"> • Materials laydown and storage • Bridge elements storage area • Delivery of materials • Loading of material into tipper trucks for delivery to site • Temporary roadway area 	√	√	√	√	√	√	√	Y	
5	South of Frogmore Road (Lot 11 DP 831409)	<p>Daytime operations 7am to 6pm:</p> <ul style="list-style-type: none"> • Materials laydown and storage • Delivery of materials • Loading of material into tipper trucks for delivery to site. 	√	√	√	√	√	√	√	Y	

6	North of Frogmore Road (Lot 13 DP 831409)	Daytime operations 7am to 6pm: <ul style="list-style-type: none"> • Materials laydown and storage • Delivery of materials • Loading of material into tipper trucks for delivery to site. 	√	√	√	√	√	√	√	√	Y	
7	Northern side of Castle Road, corner of The Northern Road (Lot 19 DP 1028818)	Daytime operations 7am to 6pm: <ul style="list-style-type: none"> • Materials laydown and storage • Delivery of materials • Loading of material into tipper trucks for delivery to site. 	√	√	X	√	√	√	√	√	Y – included in REF	
8	In Kingswood Lions Park, north-east corner of Bringelly Road and The Northern Road (Lot 26 DP 247948).	Daytime operations 7am to 6pm: <ul style="list-style-type: none"> • Materials laydown and storage • Delivery of materials • Loading of material into tipper trucks for delivery to site. 	√	√	X	√	√	√	√	√	Y – included in REF	
9	North-west corner of Maxwell Street and The Northern Road (Lot 11 DP 236368)	Daytime operations 7am to 6pm: <ul style="list-style-type: none"> • Materials laydown and storage • Delivery of materials • Loading of material into tipper trucks for delivery to site. 	√	√	√	√	√	√	√	√	Y	

10	North of Maxwell Street, to the west of The Northern Road (Lot 10 DP 236368).	<p>Daytime operations 7am to 6pm:</p> <ul style="list-style-type: none"> • Office, crib sheds, parking, first aid post, daytime deliveries • Arrival and departure of office staff, workforce and daytime deliveries to compound • Plant storage, materials laydown and storage, stockpiling and construction parking • Delivery of excavated material from site by tipper trucks • General stockpile management and loading of final product into tipper trucks for delivery to site • General delivery of other construction materials for storage. <p>Evening and night operations:</p> <ul style="list-style-type: none"> • Arrival and departure of workforce and night time deliveries to compound • Loading of material into tipper trucks for delivery to site. 	√	√	X	√	√	√	√	Y – included in REF	
11	North of Smith Street, to the west of The Northern Road (Lot 11 DP220581 and Lot 12 DP220581)	<p>Daytime operations 7am to 6pm:</p> <ul style="list-style-type: none"> • Materials laydown and storage • Delivery of materials <p>Loading of material into tipper trucks for delivery to site.</p>	√	√	X	√	√	√	√	Y – included in REF	



Transport
Roads & Maritime
Services

ENVIRONMENTAL INCIDENT CLASSIFICATION AND REPORTING PROCEDURE

February 2016

About this release

Title	Environmental Incident Classification and Reporting Procedure
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Approval and authorisation		Name
Prepared By	Environment Manager Environment Performance Improvement	Sean Hardiman
Approved By	Principal Manager Environment Operations	David Featherston

Document Status	Date
Version 4.10	13 March 2015

Version	Date	Revision Description
1.0	14.11.2007	Classification and Management of Environmental Incidents and Hazards. Environmental incidents classified under two categories.
1.1	22.11.2007	Additional definitions included.
1.2	10.12.2007	Clarified definition of Senior Environmental Officer
2.0	08.02.2008	Title change. New incident category (Cat 3) included.
2.1	14.02.2008	Appendix 1 Environmental Incident Report Form & instructions included.
2.2	11.04.2008	Environmental Incident Report Form & instructions included in Guidance material
2.3	09.07.2008	Minor changes to category 1 incident types; discharge of waters, critical habitat and failure to comply with a REF determination.
3.0	16.06.2011	Sections from Guidance document included in Procedure. Requirement to notify Chief Executive and relevant Directors of significant category 1 incidents. Appendices included.
3.1	22.12.2011	Significant changes to formatting.
4.0	27.04.2012	Title change to Environmental Incident Classification And Reporting Procedure. Update to include Maritime Division. Unexpected threatened species find to be managed in accordance with Biodiversity Guidelines included in reportable events. Significant changes to notification of material harm. Reportable event category included.
4.2	29.05.2012	Changes to reportable events, including unexpected contamination finds. Update to notification of material harm.
4.3	31.08.2013	Legal Branch revision and update following recommendations in "The External Review of Roads and Maritime Services' Handling of Contaminated Material on the Pacific Highway Herons Creek to Stills Road Section" by Brian Gilligan dated February 2013.
4.4	1.10.2013	Update Maritime Division contact and inclusion of document history
4.5	11.11.2013	Update contact positions, edit references to RMS
4.6	10.06.2014	Update contact positions, update incident form.
4.7	06.08.2014	Clarify that unexpected find of asbestos is a reportable event. Update to meet Web Content Accessibility Guidelines version 2.0 (WCAG 2.0)
4.8	16.09.2014	Update Contacts page
4.9	25.09.2014	Clarification on reportable event notification email address
4.10	13.03.2015	Update on report sign off process to ensure Environment Manager signoff and acknowledgement. Reference to RMD incident fact sheet. Priority reference to Part 5.7 incidents. General formatting and editorial amendments
4.11	20.05.2015	Update of the incident form work flow to ensure Project Manager approval and Regional Environment Manager concurrence. Clarification of a Category 2 procedural / administrative/ documentation incident
4.12	05.02.2016	Editorial corrections, amendments to report form, update contact list

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1 BACKGROUND

1.1 Purpose

To ensure that Roads and Maritime Services has processes to classify and report environmental incidents that may occur during Roads and Maritime managed activities and to comply with its statutory obligations to report certain incidents.

1.2 Scope and Coverage

This Procedure is for the use of all Roads and Maritime staff in all regions and divisions where environmental incidents may occur, including where incidents occur during the course of Roads and Maritime's contractors or alliance members undertaking works. The procedure is to clearly define the requirements of Roads and Maritime staff and contractors to report environmental incidents. The procedure does NOT cover environmental incidents caused by traffic accidents or boating accidents nor marine oil and chemical spills covered by the National Plan¹.

The Roads and Maritime Environmental Incident Classification and Reporting Procedure relates to incidents involving Roads and Maritime or its contractor/alliance partners and is for internal reporting processes as outlined in this procedure..

1.3 Responsibilities

All Roads and Maritime staff and contractors are responsible for reporting an environmental incident in accordance with this procedure when they become aware of the incident. Regional Maintenance Delivery (RMD) shall manage environmental incidents in accordance with the RMD Environmental Incident Fact Sheet at this [link](#).

2 CLASSIFICATION, NOTIFICATION AND REPORTING PROCESS

2.1 Environmental Incident Classification

There are three categories of environmental incidents / events that are to be identified and managed as shown in shown in Table 1.

- Category 1 Incidents -- potentially the most serious incidents. They generally reflect breaches of environmental legislation.
- Category 2 Incidents - are generally less environmentally serious and generally have lower maximum penalties. Nevertheless, there are sound policy reasons why these incidents need to be identified and reported, including in order to track potential trends that may lead to Category 1 incidents if not addressed
- Reportable Events - This category captures events that occur outside the scope of reasonable controls and mitigation.

¹ The National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances

Table I Environmental Incident Classification Categories

Incident Category	Primary Legislative Requirements and offence provisions
<div style="background-color: red; color: white; padding: 10px; text-align: center; font-weight: bold;">Category 1</div> <p>Pollution Incidents Breaches of the <i>Protection of the Environment Operations Act POEO Act (1977)</i> particularly s.148 (notification requirements).</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Pollution incidents which cause, or threaten to cause, material harm to the environment, that is, actual or potential harm to the health or safety of humans or ecosystems that is not trivial or that results in actual or potential loss or damage over \$10K must be NOTIFIED to the EPA and other relevant authorities.</p> </div>	<p>Discharge of waters from site not in accordance with any applicable Minor Works memo or safeguard / Part 5 determination / approval / licence condition</p> <ul style="list-style-type: none"> ▪ (EP&A Act particularly s.115W, s.76A, s.115W: POEO Act particularly s.64)
	<p>Pollution, or potential pollution, of waters with sediment or chemicals/fuels/oils that travel beyond the site boundary causing or potentially causing adverse impact to the environment, including discharges or spills to waters from the Rozelle Maritime marina or Maritime operated vessels</p> <ul style="list-style-type: none"> ▪ (s.120 POEO Act – water pollution, sediment laden water, chemical/oil spill and sewage/septic overflow)
	<p>Emission of excessive levels of dust, or an offensive odour or noise that travel beyond the site boundary and might impact on nearby land users</p> <ul style="list-style-type: none"> ▪ (s.126 POEO Act - dust exceeding reasonable levels without active management measures in place, s.129 - offensive odour;.s.139 - offensive noise)
	<p>Unauthorised disposal or transport of waste</p> <ul style="list-style-type: none"> ▪ s.143 POEO Act – Unlawful transporting or depositing of waste
	<p>A spill or other incident that causes pollution to land or residual environmental impact.</p> <ul style="list-style-type: none"> ▪ (s.116 POEO Act – spills and leaks generally, s.142 – pollution of land)
<p>Conservation Breaches Breaches of the <i>National Parks & Wildlife Act (1974)</i> NPW Act Fisheries Management Act (1999) FMA Act and the <i>Environment Protection and Biodiversity Conservation Act (1999)</i>. EPBC Act</p>	<p>Unauthorised harm or damage to native vegetation, threatened species, endangered populations, endangered ecological communities or critical habitat.</p> <ul style="list-style-type: none"> ▪ NPW Act particularly s.118A, s.118C and s.118D
	<p>Unauthorised harm to threatened aquatic species and protected marine vegetation or unauthorised dredging or reclamation works within a watercourse.</p> <ul style="list-style-type: none"> ▪ FMA Act (1994) particularly s. 199 and 204A.NPW Act particularly s.118A, s.118C and s.118D.
	<p>A fire that travels beyond the boundary causing or potentially causing adverse impact on the environment or community.</p>

	<p>Heritage Breaches Breaches of the Heritage Act (1977) and NPW Act (1974), EPBC Act (1999)</p>	<p>Unauthorised harm to Aboriginal objects and Aboriginal places.</p> <ul style="list-style-type: none"> ▪ <i>NPW Act</i> particularly s.86 and s.87. <i>EPBC Act 1999 s.15A, B & C</i>
		<p>Unauthorised damage to any State or locally significant relic or Heritage item</p> <ul style="list-style-type: none"> ▪ <i>Heritage Act 1977</i> particularly s. 57, s.119, s.139 and s.156. <i>EPBC Act 1999 s.15A, B & C</i>
	<p>Planning Breaches Breaches of the Environmental Planning & Assessment Act (1979) EP&A Act, Protection of the Environment Operations Act (1977) POEO Act.</p> <p>(also refer Category 2 exception)</p>	<p>Works undertaken outside approved areas, without required approval, without environmental assessment.</p> <ul style="list-style-type: none"> ▪ EP&A Act particularly s.115W, and s.111 ▪ POEO Act particularly s.64
		<p>Failure to comply with a Minor Works memo or safeguard / Part 5 determination / approval or permit/ environment protection licence condition.</p> <ul style="list-style-type: none"> ▪ EP&A Act particularly s.75D, s.76A, s.115 ; ▪ POEO Act s. 64
Category 2	A procedural, administrative or technical breach that relates to the preparation or submission of documents, reports or other correspondence.	
	Failure to implement component of Environment Management Plan or work method statement that does not result in a Category 1 incident.	
	Spills that do not leave a site boundary and are cleaned up without environmental harm or residual environmental impact	
	A fire that is contained on site and does not cause or potentially cause adverse impact to the environment or community	
Reportable Events	Material travelling beyond a site boundary, and where it can be demonstrated that the erosion and sediment controls have been installed and maintained well, and the weather (rain, wind etc) event exceeds the design capacity of controls.	
	An unexpected archaeological and is being managed in accordance with the " Roads and Maritime Standard Management Procedure - Unexpected Archaeological Finds"	
	An unexpected threatened species find that has been discovered and not previously identified during previous environmental assessments and is being managed in accordance with the "Roads and Maritime Biodiversity Guidelines – unexpected threatened species finds procedure"	
	An unexpected find of contaminated soils, asbestos or other potentially hazardous substances.	
	A formal complaint or warning from a regulatory agency	

2.2 Environmental Incident Response

Table 2 details the response to each incident category and Appendix 2 gives information in relation to who is responsible for the various management actions described below. The table provides information of the type of response and whether it is required to be undertaken by Roads and Maritime and/or the Roads and Maritime contractor. Regional Maintenance Delivery (RMD) shall manage environmental incidents in accordance with the RMD Environmental Incident Fact Sheet at this [link](#).

If in doubt, treat all incidents as Category 1 and in consultation with the PME0, a decision can be made to reclassify the category.

Table 2: Environmental Incident Response

Category 1 Incident Response	
1	<p>Stop work in relevant area (if necessary) and take immediate actions to prevent adverse impact to the environment or community.</p> <p>Note that the health and safety of workers is the primary concern, and no action should be taken if it is not safe to do so.</p>
2	<p>For NOTIFIABLE POLLUTION INCIDENTS refer to section 2.4 below.</p> <p>For all other Category 1 incidents immediately advise RMS Project Site Management and relevant RMS Regional Environment Manager who must immediately advise Principal Manager Environment Operations (PME0) by phone.</p>
3	<p>Complete the environmental incident report form 624 and submit to Regional Environment Manager and the Environment Operations mailbox within 3 days of the date of the incident. The RMS Project Manager must approve the incident report and submit to the RMS Regional Environment Manager who will signoff as concurrence of receipt and submit to PME0 and the Environment Operations mailbox by email on the same day of receipt.</p>
Category 2 Incident Response	
1	<p>Stop work in relevant area (if necessary) and take immediate actions to prevent adverse impact to the environment or community.</p> <p>Note that the health and safety of workers is the primary concern, and no action should be taken if it is not safe to do so.</p>
2	<p>Advise relevant RMS Regional Environment Manager (Roads and Maritime contractors to advise Roads and Maritime Project Site Management).</p>
3	<p>Complete the environmental incident report form 624 (and submit to RMS Regional Environment Manager and the Environment Operations mailbox within 3 days of the date of the incident. The Regional Environment Manager will signoff and submit to PME0 and the Environment Operations mailbox by email on the same day of receipt.</p>
Reportable Event Response	
1	<p>RMS Regional Environment Manager to advise Principal Manager Environment Operations by email with copy to the Environment Operations mailbox. Roads and Maritime contractors to advise Roads and Maritime Project Site Management</p>

2.3 Environmental Incident Reporting

It is important that there is consistency in the way that an environmental incident is reported. The incident report form and any subsequent reports must only include factual information. Speculation about the causes and outcomes are not to be included. The completed reports must be forwarded through regional Environment Managers or relevant Project Manager to the Principal Manager Environment Operations.

The following email conventions must be used when emailing and reporting on environmental incidents:

2.1.1 The Environment Incident Report Form

All environmental incidents must be reported by project staff and project managers through the Environment Incident Report Form (refer Appendix 1, Form 624 available here or Form 400 for Regional Maintenance Delivery projects available here).

2.1.2 Environmental Incident Report Form Completion

All parts of the form must be completed

- The form must be signed off by:
 - the person making the report; and
 - the RMS Regional Environment Manager.
- It is the responsibility of the RMS Regional Environment Manager to complete the section regarding the notification of the incident to the EPA and other relevant authorities.

2.1.3 Environment Operations mailbox

The Environment Operations mailbox is envops@rms.nsw.gov.au

2.1.4 Email Subject Line

When emailing an Environmental Incident Report to the Environment Operations mailbox, the subject line must include the incident category level (1 or 2), the project name and date. This will ensure that any subsequent emails relating to the incident may be adequately captured and tracked by Environment Branch. For example, the email subject line convention would be written as "Category 1 – Raleigh Road Upgrade – 1/10/15".

2.1.5 Submitting the Form

All environmental incident report forms must follow the following signoff workflow:

1. preparation and signoff by the person preparing the report (RMS or contractor staff)



2. approval by the RMS Project Manager,



3. signoff concurrence by the relevant RMS Regional Environment Manager and forwarding to the Environment Operations mailbox.

The Regional Environment Manager may also request further information regarding the incident. The Regional Environment Manager should submit the form within timeframes and include DRAFT in the subject line while waiting for the information which must be provided and resubmitted within the timeframes requested.

2.4 Regulatory Agency Notification

There are specific statutory requirements relating to the notification of pollution or environmental incidents to relevant regulatory agencies. These are summarised in table 3 below

Table 3: Environmental Incident Notification Requirements

Legislation	Regulating Authority	Section
POEO Act 1997 (see Section 2.5)	EPA and relevant authorities	Section 148 – requirement to immediately notify pollution incidents occurring during an activity that cause or threaten material harm to the environment.
Heritage Act 1977	EPA	Section 146 – requirement to notify the Heritage Council of the location of the relic once a relic has been discovered or located.
National Parks and Wildlife Act 1974	EPA	Section 89A – requirement to notify the location of an Aboriginal object that is the property of the Crown.
Commonwealth Aboriginal and Torres Strait Islanders Heritage Protection Act, 1984	Department of Environment	Section 20 – requirement to notify the Minister of the discovery of Aboriginal remains.
Contaminated Land Management Act 1997	EPA	Section 60 – requirement to notify if Roads and Maritime activities have contaminated land or if Roads and Maritime owns land that has been contaminated.
Rural Fires Act 1997	NSW Fire Brigades	Section 64 – requirement to notify an appropriate fire officer of the inability to extinguish any fire burning during a bush fire danger.

Should an environmental incident have the potential to impact on a drinking water supply, the relevant water supply authority must also be advised.

It is the responsibility of Environment Managers to liaise with Environment Operations Section prior to notifying regulatory agencies of relevant environmental incidents.

2.5 POEO Act Notification of Material Harm

Under Part 5.7 of the POEO Act, there is a duty to notify each relevant authority (identified below) of a pollution incident, where material harm to the environment is caused or threatened. Material harm includes actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial or that results in actual or potential loss (refer definitions in s147 of POEO Act) or property damage of an amount over \$10,000.

The following notification procedure only relates to pollution incidents.

Conservation, heritage and planning breaches described in Section 2.1 are not included in the definition of a pollution incident with respect to Part 5.7 of the POEO Act.

Roads and Maritime is not responsible for notifying a pollution incident caused by a traffic or vehicle accident where notification has already occurred. Notification is required by the person carrying on the activity “immediately upon becoming aware” of the incident.

IMPORTANT NOTE

- The following procedure is to be followed by all Roads and Maritime staff and contractors.
- Any actual or potential material harm to a person’s health or well being or the environment as a result of a pollution incident must be reported immediately to Principal Manager Environment Operations on (02) 8588 5765.
- Contractors who hold an environment protection licence for their activities are responsible for implementing their compliant Pollution Incident Response Management Plan including notifying EPA and the other relevant authorities in accordance Part 5.7 of the POEO Act **and** any relevant Conditions of their EPL
- Contractors undertaking works without an EPL are responsible for notifying Roads and Maritime, EPA and the relevant authorities in accordance Part 5.7 of the POEO Act.

As soon as a Roads and Maritime employee becomes aware of a **Category 1 pollution incident**, all Roads and Maritime environment officers and project managers are to **immediately** notify Principal Manager Environment Operations on (02) 8588 5765 of all **Category 1 pollution incidents**. RMD staff are to notify according to RMD Environmental Incident Fact Sheet. PME0 will assist in making an assessment of the incident and determine whether or not to formally notify the incident to the EPA and other relevant authorities.

If for any reason that PME0 is not contactable, staff should contact their regional Roads and Maritime Environment Managers (or Regional Maintenance Delivery Environmental Manager for Regional Maintenance Delivery projects) to assist in assessing whether an incident triggers the notification requirement.

If no assistance can be obtained within a reasonable time, you are required to notify the relevant authorities in the order of notification outlined in the table below and provide each agency with the information required in section 2.5 of this procedure. Even if you do not have all the information, you must notify each agency with the information you have at hand and ensure that they are updated as soon as further relevant information becomes available.

In circumstances where there is doubt about the need to notify or the relevance of a particular agency, Roads and Maritime should always err on the side of notification.
When in doubt, communicate!

2.5.1 Relevant Authorities to Notify

Table 4 provides the contact details for the authorities that need to be notified in the event of a material harm pollution incident.

Table 4: Appropriate Authorities for Part 5.7 Incident Notification

Relevant Authority	Contact Number
Fire and Rescue NSW	000 (for pollution incidents that present an immediate threat to human health or property) 1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property)
EPA environment line	131 555
The Ministry of Health	Via the local Public Health Unit see Appendix 3
WorkCover Authority	131 050
The appropriate regulatory authority	Your Local Council or Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council)
Local Council	Please call Division of Local Government on 4428 4100 to find relevant local council contacts or visit their website on http://www.dlg.nsw.gov.au/

The appropriate contact for the relevant local council and Public Health Unit will vary. All necessary contact numbers should be found in advance and stored for immediate access should a pollution incident need to be notified.

Relevant authorities notification order

- **If the incident presents an immediate threat to human health or property, Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service should be contacted first for emergency assistance**
 - call Fire and Rescue NSW on 000 first then
 - EPA environment line
 - The Ministry of Health
 - WorkCover Authority
 - Local Authority (Council)

- **If there is not an immediate threat to human health or property:**
 - call EPA environment line first then
 - Local Authority (Council)
 - The Ministry of Health
 - WorkCover Authority
 - Fire and Rescue NSW on 1300 729 579

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

2.5.2 The relevant information to provide

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

Section 150 POEO Act - Relevant information to given

1. The relevant information about a pollution incident required under section 148 consists of the following:
 - a. the time, date, nature, duration and location of the incident,
 - b. the location of the place where pollution is occurring or is likely to occur, the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known,
 - c. the circumstances in which the incident occurred (including the cause of the incident, if known),
 - d. the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known,
 - e. other information prescribed by the regulations.
2. The information required by this section is the information known to the person notifying the incident when the notification is required to be given.

If the information required to be included in a notice of a pollution incident by subsection (1) (c), (d) or (e) is not known to that person when the initial notification is made but becomes known afterwards, that information must be notified in accordance with section 148 immediately after it becomes known.

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

Complying with these notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation such as an EPL condition or legislation administered by WorkCover.

Should Roads and Maritime receive a request from a regulatory authority for a written report regarding an environmental incident, the relevant Project Manager must immediately contact Environment Branch and Legal Branch for advice. Communications with Legal Branch, for the purpose of obtaining legal advice in relation to incidents, may be subject to legal professional privilege. Documents that may be the subject to legal privilege should be clearly identified and sent to Legal Branch prior to producing them to a regulatory agency. Such documents may not be required to be produced to the agencies under written notices to provide information. Environment Branch will provide advice and will co-ordinate a response with Legal Branch. Environment Branch and Legal Branch will assist in the investigation of incidents, prepare legal advice and assist with the preparation of reports to EPA, OEH and DP&I.

Appendix 1 Environmental Incident Report Form

Form 624 available [here](#) or Form 400 for Regional Maintenance Delivery projects available [here](#)



Transport
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Environmental Incident Report – 624

Complete this form for all environmental incidents that occur due to Roads and Maritime Services works or on Roads and Maritime worksites. The purpose of this form 624 is to alert Environment Branch to potential environmental incidents. It does not represent the Roads and Maritime final position for any incident reported on this form.

Remember!	Complete all fields prior to submitting form. Be succinct, stick to the facts and do not make assumptions. Only record information you know to be correct.
Project name:	Region:
Contractor name:	

Incident details	Date	Time	:	am <input type="checkbox"/>		pm <input type="checkbox"/>	Duration	hr:	min
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Description (provide a brief description of what happened during the incident)	
EXACT location of the incident (include chainage, landmarks, features, nearest cross street, etc to make it easier to identify later) - provide a sketch if appropriate	
Quantity or volume of material escaped or causing incident (provide an estimate if quantity unknown)	
Estimated distance to nearest waterway or sensitive receiver (can include stormwater drains and dry watercourses)	
What activity was being undertaken when the incident occurred?	
How was the incident identified? (e.g. Roads and Maritime employee, Council, community, complaint)	

Potential Category 1 Incident: (may involve one or more of the following – tick category, fill in table over page)

<input type="checkbox"/> Pollution, or potential pollution, of waters with sediment or chemicals/fuels/oils that travel beyond the site boundary causing or potentially causing adverse impact to the environment, including discharges or spills to waters from the Rozelle Maritime marina or Maritime operated vessels.	<input type="checkbox"/> Unauthorised harm or damage to native vegetation, threatened species, endangered populations, endangered ecological communities or critical habitat.
<input type="checkbox"/> Discharge of waters from site not in accordance with any applicable Minor Works memo or safeguard / Part 5 determination / approval / licence condition.	<input type="checkbox"/> Material harm to the environment or persons as per Part 5.7 of POEO Act.
<input type="checkbox"/> Works undertaken outside approved areas, without required approval or environmental assessment.	<input type="checkbox"/> Unauthorised harm or damage to threatened aquatic species and protected marine vegetation or unauthorised dredging or reclamation works within a watercourse.
<input type="checkbox"/> Unauthorised harm to Aboriginal objects and Aboriginal places or damage to any State or locally significant relic or Heritage item.	<input type="checkbox"/> Unauthorised damage or destruction to any State or locally significant relic or Heritage item.
<input type="checkbox"/> A spill or other incident that causes pollution to land or residual environmental impact.	<input type="checkbox"/> Emission of excessive levels of dust, or an offensive odour or noise that travel beyond the site boundary and might impact on nearby land users.
<input type="checkbox"/> Breach of legislation, failure to comply with a Minor Works memo or safeguard / Part 5 determination / approval or permit / environment protection licence condition.	<input type="checkbox"/> Unauthorised disposal or transport of waste.
	<input type="checkbox"/> A fire that travels beyond the boundary causing or potentially causing adverse impact on the environment or community.

Potential Category 2 Incident: (may involve one or more of the following – tick category, fill in table over page)

<input type="checkbox"/> A procedural, administrative or technical breach that relates to the preparation or submission of documents, reports or other correspondence.
<input type="checkbox"/> Failure to implement component of Environment Management Plan or work method statement that does not result in a Category 1 incident.
<input type="checkbox"/> Spills that do not leave the site boundary and are cleaned up without material environmental harm or residual environmental impact.
<input type="checkbox"/> A fire that is contained on site and does not cause or potentially cause adverse impact to the environment or community.

Any other details of the incident (including any information which did not fit in spaces above, as well as any special circumstances of the day or the location):

.....
.....
.....

What immediate actions/control measures were taken to rectify or contain the incident?

.....
.....
.....

What corrective action has been taken to prevent similar incidents recurring?

.....
.....
.....

Sign off (officer making report)

Print name:	Sign:
Position:	Date:

Approval (Roads and Maritime Project Manager)

Sign:	Print name:	Date:
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Notification to EPA and other relevant authorities

To be completed by the relevant Roads and Maritime Environment Manager	
Was EPA notified?	<input type="checkbox"/> Yes <input type="checkbox"/> No - If No, provide reasons for not notifying EPA
Who notified them?	Name: Position:
Notification method:	<input type="checkbox"/> Telephone <input type="checkbox"/> On site Date: Time::..... am <input type="checkbox"/> pm <input type="checkbox"/>
Has there been a EPA Environment Line Complaint?	<input type="checkbox"/> Yes <input type="checkbox"/> No EPA Complaint No.
Were any of the following authorities notified?	<input type="checkbox"/> NSW Fire & Rescue <input type="checkbox"/> Local Government <input type="checkbox"/> WorkCover <input type="checkbox"/> Ministry of Health
Were any other authorities notified and why (eg Department of Planning and Environment, Department of Primary Industries (Fisheries), Sydney Catchment Authority, Office of Environment & Heritage).	
Is there an Environment Protection Licence for the project?	<input type="checkbox"/> Yes <input type="checkbox"/> No
▶ If Yes – was the Pollution Incident Response Management Plan implemented	<input type="checkbox"/> Yes <input type="checkbox"/> No

Concurrence (Roads and Maritime Environment Manager)

Print name:	Sign:	Date:
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Comments

.....

Please submit all completed forms to Environment Branch by email to envops@rms.nsw.gov.au

APPENDIX 2 ROADS AND MARITIME CONTACTS

Position	Location	Phone	Mobile
General Manager Environment	North Sydney	8588 5730	
Principal Manager Environment Operations	North Sydney	8588 5766	0417 652 929
Principal Manager Environment (IDD)	North Sydney	8588 5765	0428 608 758
Principal Manager Environment Policy, Planning and Assessment	North Sydney	8588 5740	0439 595 361
Maritime Division Emergency Planner Officer	Rozelle office	9563 8476	0428 740 520
Senior Environment Specialist – Biodiversity	North Sydney	8588 5756	0439 595 361
Senior Environment Specialist - Heritage	North Sydney	8588 5754	0400 474 405
Environment Manager Motorways	North Sydney	8588 4372	0408 989 693
Environment Manager Sydney	Parramatta	8849 2516	0411 148 513
Environment Manager Western	Parkes	6861 1628	0418 851 454
Environment Manager Southern	Wollongong	6492 9515	0447 443 957
Environment Manager Northern	Grafton	6640 1072	0411 406 519
Environment Manager South-West	Wagga Wagga	6937 1634	0418 496 325
Environment Manager Hunter	Newcastle	4924 0440	0413 483 539
Environment Manager Pacific Highway	Grafton	6640 1375	0419 248 583
Environment Manager Easing Sydney Congestion	Parramatta	8849 2516	0411 148 513
Environment Manager Freight and Regional	Newcastle	4924 0281	0411 126 989
Environment Manager Western Sydney	Parramatta	8849 2165	0476 813 083
Environment Manager Greater Sydney	Parramatta	8588 4372	0408 989 693
A/Environmental Manager Regional Maintenance Delivery	Grafton	6640 1377	0409 079 644

APPENDIX 3 CONTACT DETAILS FOR PUBLIC HEALTH UNITS

Public Health Unit	Contact Details	After Hours Contact
Goulburn Office	Locked Bag 11, Goulburn, 2580 Ph: 02 4824 1840 Fax: 02 4824 1831 / 4822 5038 (s)	Ph: 02 6080 8900 (diverts to Albury Base Hospital) - ask for Public Health Officer on call,
Albury Office	PO Box 3095, Albury, 2640 Ph: 02 6080 8900 Fax: 02 6080 8999	Ph: 02 6080 8900 (diverts to Albury Base Hospital) - ask for Public Health Officer on call,
Broken Hill Office	PO Box 457, Broken Hill, 2880 Ph: 08 8080 1499 Fax: 08 8080 1683 / 1196 (s)	Ph: 08 8080 1333 (Broken Hill Base Hospital) - ask for Public Health Officer on call, if no answer: Mob: 0417 685 259
Dubbo Office	PO Box 739, Dubbo, 2830 Ph: 02 6841 5569 Fax: 02 6841 5571 (s)	Ph: 02 6885 8666 (Dubbo Base Hospital) - ask for Public Health Officer on call, if no answer: Mob: 0418 866 397 - ask for Public Health Officer on call
Bathurst Office	PO Box 143, Bathurst, 2795 Ph: 02 6339 5601 Fax: 02 6339 5173 (s)	Mob: 0428 400 526 - ask for Public Health Officer on call
Newcastle Office	Locked Bag 10, Wallsend, 2287 Ph: 02 4924 6477 Fax: 02 4924 6490 / 4922 3164 (s)	Ph: 02 4924 6477 (diverts to John Hunter Hospital) - ask for Public Health Officer on call
Tamworth Office	Locked Mail Bag 9783, NEMSC 2348 Ph: 02 6764 8000 Fax: 02 6766 3890 (s)	Ph: 02 6764 8000 (diverts to Public Health Officer on call)
Matrville Office	PO Box 150, Matrville 2036 Ph: 02 9311 270 Fax: 02 9700 3747 (s)	Ph: 02 9311 2707
Port Macquarie Office	PO Box 126, Port Macquarie 2444 Ph: 02 6588 2750 Fax: 02 6588 2837	Pager Service: 1300 555 555 Communicable Disease: 48073 Environmental Health: 149 3771f no answer phone: Mob 0417 244 966 or Mob 0407 904 280

Public Health Unit	Contact Details	After Hours Contact
Lismore Office	PO Box 498, Lismore 2480 Ph: 02 6620 7585 Fax: 02 6622 2151 / 6620 2552 (s)	Pager Service: 1300 555 555 Communicable Disease: 48073 Environmental Health: 149 3771f no answer phone: Mob 0417 244 966 or Mob 0407 904 280
Hornsby Office	Hornsby Hospital, Palmerston Rd, Hornsby 2077 Ph: 02 9477 9400 Fax: 02 9482 1650 / 1358 (s)	Ph: 02 9477 9123 (Hornsby Hospital) - ask for Public Health Officer on call
Gosford Office	PO Box 361, Gosford, 2250 Ph: 02 4349 4845 Fax: 02 4349 4850 (s)	Ph: 02 4320 2111 (Gosford Hospital) - ask for Public Health Nurse on call
Randwick Office	Locked Bag 88, Randwick 2031 Ph: 9382 8333 Fax: 02 9382 8334 / 8314 (s)	Ph: 02 9382 2222 (Prince of Wales Hospital) - ask for Public Health Nurse on call
Wollongong Office	Locked Bag 9, Wollongong 2500 Ph: 02 4221 6700 Fax: 02 4221 6759 (s)	Ph: 02 4222 5000 (Wollongong Hospital) - ask for Public Health Officer on call
Eastern Zone(Camperdown Office) For Liverpool Area, please dial the Camperdown office.	PO Box 374, Camperdown 2050 Ph: 02 9515 9420 Fax: 02 9515 9440 Fax: 02 9515 9467 (s)	Ph: 02 9515 6111 (Royal Prince Alfred Hospital) - ask Public Health Officer on call
Penrith Office	PO Box 63, Penrith 2751 Ph: 02 4734 2022 Fax: 02 4734 3300 / 3444 (s)	Ph: 02 9845 5555 (Westmead Hospital) - ask for Public Health Officer on call
Parramatta Office	Locked Bag 7118, Parramatta BC 2150 Ph: 02 9840 3603 Fax: 02 9840 3608 / 3591 (s)	Ph: 02 9845 5555 (Westmead Hospital) - ask for Public Health Officer on call

Procedure

LLE702

Environmental Incidents and Emergencies



1. PURPOSE

To ensure that environmental incidents are appropriately managed, reported (internal and external), investigated and controlled. To ensure that adequate planning is in place for environmental emergencies resulting from environmental incidents.

2. DEFINITIONS

Incident

An unplanned or unexpected event which causes or has the potential to cause environmental harm or damage.

Emergency

An unexpected event of a serious nature which demands immediate action.

Catastrophic Impact

Is that class of incident that causes major irreversible environmental harm such as:

- Major release impacting environment / atmosphere
- Irreversible onsite and/or offsite environmental damage
- Clean up or remedy requires significant effort and internal and external resources
- Regulatory notification compulsory with significant penalties likely.

Large Impact

That class of incident that causes major onsite and/or offsite impacts and penalties:

- Major release impacting environment / atmosphere
- Major onsite and/or offsite impacts
- Clean-up or remedy requires external resources and/or assistance to conduct and manage
- Regulatory notification compulsory and independent investigation likely.

These definitions comes from Lendlease (Construction and Infrastructure)

Notifiable Incident

Any incident defined in Commonwealth, State or Territory legislation that must be reported to the relevant environmental regulatory authority. Material harm includes actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial or that results in actual or potential loss or property damage of an amount generally over \$5,000 (or \$10,000 in NSW). In general impacts defined as Catastrophic, Large, and in some cases Medium, will fall under this definition.

Critical Incident

For Lendlease reporting purposes a Critical Incident is defined as:



LLE702 Environmental Incidents and Emergencies

- Any incident where an ACTUAL environmental impact has been recorded as LLEGE or CATASTROPHIC; or
- Any incident that has the POTENTIAL to result in a LLEGE or CATASTROPHIC impact AND:
 - risks to the environment were not appropriately identified and addressed;
 - tasks and risks were not adequately communicated; or
 - failures or inadequacies in primary and secondary control measures (as per physical GMRs) have contributed to the incident.
- An environmental regulatory warning, fine or other formal regulatory notice.

Business Reportable (Medium) Incident

For Lendlease reporting purposes a Business Reportable Incident is defined as a non-Critical incident that is not trivial in scale. The incident results in ACTUAL or POTENTIAL loss or property damage of an amount over \$5,000 (or \$10,000 in NSW). It would generally meet the following criteria:

- Moderate release impacting environment / atmosphere
- Medium offsite impacts but no significant irreversible damage
- Clean up or remedy requires a moderate level of effort and resources
- Regulatory notification and involvement required; or
- A non-trivial breach of a Project Approval / Environmental Protection Licence condition.

Minor Incidents

Minor incidents are documented in the Lendlease reporting system. These incidents have severity levels Small or Very Small and are trivial in nature. A Very Small impact has an insignificant effect on the environment.

Reportable Incidents

A 'reportable event' is something which is not an incident, however requires internal reporting to the State Environment and Sustainability Manager. Reporting should be carried out by the end of the business day. Reportable events include:

- Non-compliance of an Approval or licence condition that does not constitute a physical incident;
- an unanticipated heritage find (indigenous and non-indigenous);
- an unexpected threatened species find;
- an unexpected find of contaminated soils or asbestos;
- a community concern, issue or complaint which has a significant level of escalation. Escalation can include a complaint which:
 - has a high potential for negative media; or
 - has been referred to a local Member.

3. REFERENCES

- Relevant state and federal legislation, and local government regulations
- [LLE602 Emergency Preparedness](#)
- [LLE109B Engineering Crisis Management Plan](#)

4. METHOD

4.1. Induction and Training in Incident and Emergency Preparedness

Prior to starting work on site all employees and subcontractors must be made aware of the business Environmental Policy, their responsibility to report all incidents and undertake their works in accordance with this procedure. This requirement will be conveyed to all personnel on site during the site-specific induction ([LLE1002 Worker Induction and Training](#)) and will be reinforced through regular toolbox talks.

4.2. Emergency Preparedness

Emergency preparedness is covered in procedure [LLE602](#).

A template Emergency Plan has been prepared as [LLE602 Attachment 1](#), which includes environmental emergencies. This plan should be reviewed on each project site, and amended as necessary to align and interface with the client's emergency planning and any locally specific emergency procedures.

4.3. Emergency Management

The following steps must be taken when an environmental incident occurs that creates an emergency situation:

4.3.1. Isolate the Area

- Stop work in the area, barricade it and make it safe;
- Do not let workers, disturb or aggravate the hazard; and
- Where necessary, implement emergency evacuation procedures (ref to [LLE602 Emergency Preparedness](#)).

4.3.2. Attend to/Minimise Environmental Damage

- Take immediate actions needed to control, localise and minimise the damage;
- Organise remedial and/or repair works to be undertaken promptly.

4.3.3. Notify Company Management, Client and Emergency Authorities

- For each type of incident, a hierarchy or chain of notification exists, see section 4.5.
- The project's Emergency Controller will ascertain whether the emergency can be brought under control by project personnel or whether the Fire Brigade or Emergency Services are required and notify if necessary.

4.3.4. Remedial Action/Responding to Notices

- Ensure prompt remedial action is taken after an incident which can help to reduce any potential penalty; Ensure a document "paper trail" is kept of all remedial actions which are taken.
- Obtain Corporate Counsel's advice if a statutory notice is issued or likely to be issued (if you disobey them, the result could be prosecution). Ensure that legal advice is obtained before any remedial action is taken (if the environmental authority becomes aware of remedial steps, it can be used as particulars of a breach, i.e. "why didn't you do this before the accident?").

4.3.5. Public Relations/Dealing with the Media

- If required, the Corporate Communications Manager will speak to the media on behalf of the Company.

4.4. Crisis Management

Certain incidents may be considered a crisis. The project environment representative shall notify the Project Manager in the likelihood that an incident could be a crisis.

A matrix within the Corporate Crisis Management Plan [LLE109B](#) advises the trigger for activating a Crisis Management Team (CMT) and if so which Crisis Management Team should be invoked. Depending upon the severity of the incident, either a local, regional or corporate crisis management response will be made.

4.5. Incident Reporting

The first step to be taken in reporting an environmental incident is notification to the project environment representative(or delegate).

The project environment representative(or delegate) shall:



LLE702 Environmental Incidents and Emergencies

- Notify State Environment and Sustainability Manager by phone within 1 hour, if the incident has the potential to be Critical or Business Reportable
- Notify Project Manager, and Client (where required by project documents)
- If non-trivial, advise the regulatory authorities
- Commence investigation of the incident to determine how the event occurred. Determine the names and employment details of people directly involved. Include names and contact numbers of any witnesses.
- By the end of the day, generate and save a new Event in Enablon by entering basic facts only. This initial electronic report is used to record the occurrence of the incident only.
- Enablon will be used to document all environmental incidents. Forms LLE702A and LLE702B will not be used for internal reporting, except if there is any difficulty in accessing Enablon, in which case the facts will be entered into Enablon at a later time. The Forms may also be used on a project-specific case, if required under the contract.

The State Environment and Sustainability Manager will review all environment incidents. If an incident is potentially a Critical or Business Reportable Incident then:

- Notify National Environment Manager and/or the General Manager Environment and Sustainability by phone within 1 hour, and discuss whether impacts are significant enough to warrant involvement of legal counsel
- Notify Senior State (Executive) General Managers, as appropriate
- Assist the project environment representative (or delegate) to obtain all the relevant facts associated with the incident
- Within 5 business days have all updated information entered in Enablon. Confirm whether the incident is in fact potentially Critical or Business Reportable, if not downgrade the incident.

The National Environment Manager and/or the General Manager Environment and Sustainability will review all potential Critical or Business Reportable Incidents, and will:

- Upon assessment of the incident, arrange for legal counsel to become involved if warranted. If legal counsel become involved, follow their instructions.
- Within 5 days either publish the Event as Critical or Business Reportable, ensuring basic facts only are documented, or arrange for the event to be downgraded.
- If a Critical Incident, an ICAM investigation will be undertaken by Project and/or State environment team. Use form [LLE604E](#) to document the investigation. See section below for more detail.

4.6. Managing the Investigation

4.6.1. Investigation Process

The investigation process involves the following steps:

- Observe, photograph and/or take sketches of the scene of the incident;
- Interview the person(s) involved in the incident Individually;
- Obtain information from specialist or experts, if necessary.

When interviewing person(s) involved or witnesses to the incident, typical questions to ask are:

- What time did the incident occur?
- What were people doing immediately before the incident?
- Were people working where or near where the incident occurred?
- What plant and/or equipment was being used?
- What were the weather conditions?
- What instructions had been issued prior to the incident and by whom?
- Who was the first person at the scene?



LLE702 Environmental Incidents and Emergencies

4.6.2. Collecting Evidence

- Compile a “snapshot” of the environmental system at the time of the incident;
- In internal reports, avoid speculation, conjecture, rumours and “guesswork” about what happened, or hasty conclusions. Be careful when stating what action to take to prevent recurrence;
- Consider consistency between different reports (including other statutory reports and internal reports to senior management or the Board);
- Keep documents and information confidential (be sensitive about media/public knowledge);
- Minimise the distribution of information (avoid widely distributing emails);
- Collate all relevant documentation/evidence as early as possible. Obtain statements or proofs of evidence from all potential witnesses (including non-workers); and
- If the incident is a Notifiable Incident all reports etc., should be coordinated by Legal Counsel (otherwise they may not be privileged).

4.6.3. ICAM Investigations

- The person assigned to undertake the ICAM investigations will use LLE604E, and review findings with the State Environment and Sustainability Manager and National Environment Manager
- The purpose of the investigation, is to determine if there is any breakdown in the application of the system, any deficiencies in the system and in such cases the investigation of these issues should remain privileged. Effective action should be taken, to correct any immediate and existing danger and to prevent repetition of the incident.
- By coordinating the investigation through Corporate Counsel, it may be possible to maintain documents/reports under privilege and protect information from disclosure.
- Ensure Corporate Counsel is consulted before any expert reports/audits etc., are obtained. These should be “privileged and confidential”. All documents provided to third parties (e.g. environmental authorities) should first be reviewed by Corporate Counsel.
- Submit the ICAM Report to the:
 - Project Manager,
 - the relevant state Operations Manager
 - the State Environment and Sustainability Manager, and the
 - National Environment Manageras soon as practical after the event. The State Environment and Sustainability Manager will coordinate a management review and a debrief of the ICAM investigation. This management review will be documented within the [LLE604E](#).

4.7. External Investigations undertaken by Regulatory Authorities

4.7.1. Dealing with Regulatory Authorities

- Understand the scope of the environmental authority’s powers. Unions also have some limited investigatory powers;
- Workers must cooperate with and provide reasonable assistance to an environmental authority inspector. It is also important to balance the need to retain control over information with the goal of fostering and preserving good long term relationships with environmental authorities;
- Consider “shadowing” the evidence collected by the environmental authority (samples, photos etc.);
- If the environmental authority requests a formal interview, always ask for the questions in writing. Consider having a lawyer present during any interview. Do not sign statements until they have been checked by Legal Counsel. There is no obligation to sign a record of interview;
- Ensure witnesses are briefed by Legal Counsel as early as possible; and
- When issued with an environmental authority’s notice, get Corporate Counsel’s advice immediately.

5. RECORDS AND ATTACHMENTS

- [LLE702 Figure 1](#) (Flow chart)



LLE702 Environmental Incidents and Emergencies

Because all environmental incidents will be reported within Enablon, the following two attachments are not necessary. However they are retained in case Enablon is not accessible at any time, or there is a specific project client requirement:

- [LLE702A Environmental Incident Report](#)
- [LLE702B Environment Incident Investigation.](#)



LLE702A

Environmental Incident Report

Project:		Report No.:	
Date of Incident:		Time of Incident:	

PART A – What Happened?

Type of Incident			
<input type="checkbox"/> Hazardous Material	<input type="checkbox"/> Water Pollution	<input type="checkbox"/> Soil Erosion	
<input type="checkbox"/> Noise	<input type="checkbox"/> Vibration	<input type="checkbox"/> Air Pollution	
<input type="checkbox"/> Other (specify)			
Persons Involved			
	Name	Occupation	Employer
a) Person(s) directly involved.			
b) Witnesses.			
Damage to plant or property that occurred/may have occurred:			

LLE702A Environmental Incident Report

PART B – How Did it Happen?

(Explain clearly how the incident occurred. This should be brief, in dot point form, providing the facts only and should not contain supposition or hearsay).

Description of Incident:
Location (attach sketch/map)
Weather Conditions:

PART C – Authority Notification

(Note:

- Where the incident is notifiable (or has not been notified) complete PART D)
- Where the incident is notifiable (or has been notified) an LLE702B Environmental Incident Investigation should be completed after receiving advice from the State Environmental Manager.

Name of Relevant Authority (DECC, etc.):		
Is the incident notifiable:	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Was the Authority notified:	YES <input type="checkbox"/>	NO <input type="checkbox"/>

PART D – How Will Repeats be Prevented?

(Note: This PART D is only to be completed where the incident is not notifiable or has not been notified to the Authority)

Action Required	Names of Responsible Person	Date Due

LLE702A Environmental Incident Report

PART E – Authorisation and Distribution

Report Prepared by		
Name:	Signature:	Date:
Position:		

Report Reviewed by		
Name:	Signature:	Date:
Position:		

(Note: This section required only when PART D has been completed)

Corrective/Preventative Action Completed		
Name:	Signature:	Date:
Position:		

Report Distributed to:	
<input type="checkbox"/> State Environmental Manager	<input type="checkbox"/> Construction Manager
<input type="checkbox"/> Corporate Counsel	<input type="checkbox"/> Division Manager



LLE702B

Environmental Incident Investigation

This form is to be:

- 1) completed when an incident is notifiable and/or has been notified to the relevant authority.
- 2) completed after requesting legal privilege.
- 3) submitted to the regional office within five (5) days of the incident.

Note: Parts A, B & F contain some information already provided on LLE702A Environmental Incident Report

Project:		Report No.:	
Date of Incident:		Time of Incident:	

PART A – What Happened?

Type of Incident			
<input type="checkbox"/> Hazardous Material Erosion	<input type="checkbox"/> Water Pollution	<input type="checkbox"/> Soil	
<input type="checkbox"/> Noise	<input type="checkbox"/> Vibration	<input type="checkbox"/> Air Pollution	
<input type="checkbox"/> Other (specify)			
Persons Involved			
	Name	Occupation	Employer
a) Person(s) directly involved.			
b) Person reporting incident.			
c) Person incident reported by.			
c) Witnesses			
e) Supervisor			
Damage to plant or property that occurred/may have occurred:			

LLExxxA [Title]

PART B – How Did it Happen?

(Explain clearly how the incident occurred, describe the events, activities, etc., BEFORE, DURING and AFTER.

Attach sketches, photographs, detail the facts only)

Description of Incident:
Location (attach sketch/map)
Weather Conditions:

PART C – Why Did it Happen?

(What were the contributing factors that led to the incident. This may require some conclusions to be reached based on evidence gathered from interviews etc. Attach witness statements, inspection reports etc.).

--

PART D – How Will Repeats be Prevented?

(Detail WHAT PREVENTIVE/CORRECTIVE ACTIONS must be taken BY WHOM to eliminate the possibility of a similar incident occurring again).

Action Required	Name of Responsible Person	Date Due

PART E – Closure of Preventative/Corrective Action Items

(The nominated person(s) verifying that actions have been completed as noted in Part D above is to sign below).

Name:		Role:		Signature:		Date:	
Name:		Role:		Signature:		Date:	

PART F – Authority Notification

Name of Relevant Authority (DECC, etc.):			
Was the Authority notified:	YES <input type="checkbox"/>	NO <input type="checkbox"/>	
Severity Potential:	<input type="checkbox"/> Breach of Licence Condition <input type="checkbox"/> Fine <input type="checkbox"/> Prosecution		

PART G – Authorisation and Distribution

(Report must be forwarded to LLE Management for formal review and to others noted below as determined by the Project Manager).

Report Prepared By:					
Name:		Signature:		Date:	
Position:					
Report Reviewed By: (Whenever practicable this must be the Project Manager)					
Name:		Signature:		Date:	
Position:					
Report Distributed To:					
<input type="checkbox"/> State Environmental Manager		<input type="checkbox"/> Construction Manager			
<input type="checkbox"/> Corporate Counsel		<input type="checkbox"/> Division Manager			
Note: In the event that a Corporate Management Investigation and Debrief is required, the following items must be included when preparing a comprehensive incident investigation:					
<input type="checkbox"/> Witness statement(s)		<input type="checkbox"/> Supervisor statement			
<input type="checkbox"/> Induction Records		<input type="checkbox"/> Copy of Toolboxes			
<input type="checkbox"/> Photographs		<input type="checkbox"/> Other – e.g. survey, inspection records etc.			

PART H – Management Review

(To be completed by LLE Management – Operations/Construction/State Environmental Manager – and returned to the Project Manager).

Name:		Signature:	
Position:		Date:	



Transport
Roads & Maritime
Services

ENVIRONMENTAL INCIDENT CLASSIFICATION AND REPORTING PROCEDURE

June 2015

About this release

Title	Environmental Incident Classification and Reporting Procedure
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Approval and authorisation		Name
Prepared By	Environment Manager Environment Performance Improvement	Sean Hardiman
Approved By	Principal Manager Environment Operations	David Featherston

Document Status		Date
Version 4.11		02 June 2015
Version	Date	Revision Description
1.0	14.11.2007	Classification and Management of Environmental Incidents and Hazards. Environmental incidents classified under two categories.
1.1	22.11.2007	Additional definitions included.
1.2	10.12.2007	Clarified definition of Senior Environmental Officer
2.0	08.02.2008	Title change. New incident category (Cat 3) included.
2.1	14.02.2008	Appendix 1 Environmental Incident Report Form & instructions included.
2.2	11.04.2008	Environmental Incident Report Form & instructions included in Guidance material
2.3	09.07.2008	Minor changes to category 1 incident types; discharge of waters, critical habitat and failure to comply with a REF determination.
3.0	16.06.2011	Sections from Guidance document included in Procedure. Requirement to notify Chief Executive and relevant Directors of significant category 1 incidents. Appendices included.
3.1	22.12.2011	Significant changes to formatting.
4.0	27.04.2012	Title change to Environmental Incident Classification And Reporting Procedure. Update to include Maritime Division. Unexpected threatened species find to be managed in accordance with Biodiversity Guidelines included in reportable events. Significant changes to notification of material harm. Reportable event category included.
4.2	29.05.2012	Changes to reportable events, including unexpected contamination finds. Update to notification of material harm.
4.3	31.08.2013	Legal Branch revision and update following recommendations in "The External Review of Roads and Maritime Services' Handling of Contaminated Material on the Pacific Highway Herons Creek to Stills Road Section" by Brian Gilligan dated February 2013.
4.4	01.10.2013	Update Maritime Division contact and inclusion of document history
4.5	11.11.2013	Update contact positions, edit references to RMS
4.6	10.06.2014	Update contact positions, update incident form.
4.7	06.08.2014	Clarify that unexpected find of asbestos is a reportable event. Update to meet Web Content Accessibility Guidelines version 2.0 (WCAG 2.0)
4.8	16.09.2014	Update Contacts page
4.9	25.09.2014	Clarification on reportable event notification email address
4.10	13.03.2015	Update on report sign off process to ensure Environment Manager signoff and acknowledgement. Reference to RMD incident fact sheet. Priority reference to Part 5.7 incidents. General formatting and editorial amendments
4.11	20.05.2015	Update of the incident form work flow to ensure Project Manager approval and Regional Environment Manager concurrence. Clarification of a Category 2 procedural / administrative/ documentation incident

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1 BACKGROUND

1.1 Purpose

To ensure that Roads and Maritime Services has processes to classify and report environmental incidents that may occur during Roads and Maritime managed activities and to comply with its statutory obligations to report certain incidents.

1.2 Scope and Coverage

This Procedure is for the use of all Roads and Maritime staff in all regions and divisions where environmental incidents may occur, including where incidents occur during the course of Roads and Maritime's contractors or alliance members undertaking works. The procedure is to clearly define the requirements of Roads and Maritime staff and contractors to report environmental incidents. The procedure does NOT cover environmental incidents caused by traffic accidents or boating accidents nor marine oil and chemical spills covered by the National Plan¹.

The Roads and Maritime Environmental Incident Classification and Reporting Procedure relates to incidents involving Roads and Maritime or its contractor/alliance partners and is for internal reporting processes as outlined in this procedure..

1.3 Responsibilities

All Roads and Maritime staff and contractors are responsible for reporting an environmental incident in accordance with this procedure when they become aware of the incident. Regional Maintenance Delivery (RMD) shall manage environmental incidents in accordance with the RMD Environmental Incident Fact Sheet at this [link](#).

2 CLASSIFICATION, NOTIFICATION AND REPORTING PROCESS

2.1 Environmental Incident Classification

There are three categories of environmental incidents / events that are to be identified and managed as shown in shown in Table 1.

- Category 1 Incidents -- potentially the most serious incidents. They generally reflect breaches of environmental legislation.
- Category 2 Incidents - are generally less environmentally serious and generally have lower maximum penalties. Nevertheless, there are sound policy reasons why these incidents need to be identified and reported, including in order to track potential trends that may lead to Category 1 incidents if not addressed
- Reportable Events - This category captures events that occur outside the scope of reasonable controls and mitigation.

¹ The National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances

Table I Environmental Incident Classification Categories

Incident Category	Primary Legislative Requirements and offence provisions
<p>Pollution Incidents Breaches of the <i>Protection of the Environment Operations Act POEO Act (1977)</i> particularly s.148 (notification requirements).</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Pollution incidents which cause, or threaten to cause, material harm to the environment, that is, actual or potential harm to the health or safety of humans or ecosystems that is not trivial or that results in actual or potential loss or damage over \$10K must be NOTIFIED to the EPA and other relevant authorities.</p> </div>	<p>Discharge of waters from site not in accordance with any applicable Minor Works memo or safeguard / Part 5 determination / approval / licence condition</p> <ul style="list-style-type: none"> ▪ (EP&A Act particularly s.115W, s.76A, s.115W: POEO Act particularly s.64) <p>Pollution, or potential pollution, of waters with sediment or chemicals/fuels/oils that travel beyond the site boundary causing or potentially causing adverse impact to the environment, including discharges or spills to waters from the Rozelle Maritime marina or Maritime operated vessels</p> <ul style="list-style-type: none"> ▪ (s.120 POEO Act – water pollution, sediment laden water, chemical/oil spill and sewage/septic overflow) <p>Emission of excessive levels of dust, or an offensive odour or noise that travel beyond the site boundary and might impact on nearby land users</p> <ul style="list-style-type: none"> ▪ (s.126 POEO Act - dust exceeding reasonable levels without active management measures in place, s.129 - offensive odour;.s.139 - offensive noise) <p>Unauthorised disposal or transport of waste</p> <ul style="list-style-type: none"> ▪ s.143 POEO Act – Unlawful transporting or depositing of waste <p>A spill or other incident that causes pollution to land or residual environmental impact.</p> <ul style="list-style-type: none"> ▪ (s.116 POEO Act – spills and leaks generally, s.142 – pollution of land)
<p>Conservation Breaches Breaches of the <i>National Parks & Wildlife Act (1974)</i> NPW Act Fisheries Management Act (1999) FMA Act and the <i>Environment Protection and Biodiversity Conservation Act (1999)</i>. EPBC Act</p>	<p>Unauthorised harm or damage to native vegetation, threatened species, endangered populations, endangered ecological communities or critical habitat.</p> <ul style="list-style-type: none"> ▪ NPW Act particularly s.118A, s.118C and s.118D <p>Unauthorised harm to threatened aquatic species and protected marine vegetation or unauthorised dredging or reclamation works within a watercourse.</p> <ul style="list-style-type: none"> ▪ FMA Act (1994) particularly s. 199 and 204A.NPW Act particularly s.118A, s.118C and s.118D. <p>A fire that travels beyond the boundary causing or potentially causing adverse impact on the environment or community.</p>

Category 1

	<p>Heritage Breaches Breaches of the Heritage Act (1977) and NPW Act (1974), EPBC Act (1999)</p>	<p>Unauthorised harm to Aboriginal objects and Aboriginal places.</p> <ul style="list-style-type: none"> ▪ NPW Act particularly s.86 and s.87. EPBC Act 1999 s.15A, B & C
		<p>Unauthorised damage to any State or locally significant relic or Heritage item</p> <ul style="list-style-type: none"> ▪ Heritage Act 1977 particularly s. 57, s.119, s.139 and s.156. EPBC Act 1999 s.15A, B & C
	<p>Planning Breaches Breaches of the Environmental Planning & Assessment Act (1979) EP&A Act, Protection of the Environment Operations Act (1977) POEO Act.</p> <p>(also refer Category 2 exception)</p>	<p>Works undertaken outside approved areas, without required approval, without environmental assessment.</p> <ul style="list-style-type: none"> ▪ EP&A Act particularly s.115W, and s.111 ▪ POEO Act particularly s.64
		<p>Failure to comply with a Minor Works memo or safeguard / Part 5 determination / approval or permit/ environment protection licence condition.</p> <ul style="list-style-type: none"> ▪ EP&A Act particularly s.75D, s.76A, s.115 ; ▪ POEO Act s. 64
Category 2	A procedural, administrative or technical breach that relates to the preparation or submission of documents, reports or other correspondence.	
	Failure to implement component of Environment Management Plan or work method statement that does not result in a Category 1 incident.	
	Spills that do not leave a site boundary and are cleaned up without environmental harm or residual environmental impact	
	A fire that is contained on site and does not cause or potentially cause adverse impact to the environment or community	
Reportable Events	Material travelling beyond a site boundary, and where it can be demonstrated that the erosion and sediment controls have been installed and maintained well, and the weather (rain, wind etc) event exceeds the design capacity of controls.	
	An unexpected archaeological and is being managed in accordance with the " Roads and Maritime Standard Management Procedure - Unexpected Archaeological Finds"	
	An expected threatened species find that has been discovered and not previously identified during previous environmental assessments and is being managed in accordance with the "Roads and Maritime Biodiversity Guidelines – unexpected threatened species finds procedure"	
	An unexpected find of contaminated soils, asbestos or other potentially hazardous substances.	
	A formal complaint or warning from a regulatory agency	

2.2 Environmental Incident Response

Table 2 details the response to each incident category and Appendix 2 gives information in relation to who is responsible for the various management actions described below. The table provides information of the type of response and whether it is required to be undertaken by Roads and Maritime and/or the Roads and Maritime contractor. Regional Maintenance Delivery (RMD) shall manage environmental incidents in accordance with the RMD Environmental Incident Fact Sheet at this [link](#).

If in doubt, treat all incidents as Category 1 and in consultation with the PME0, a decision can be made to reclassify the category.

Table 2: Environmental Incident Response

Category 1 Incident Response	
1	<p>Stop work in relevant area (if necessary) and take immediate actions to prevent adverse impact to the environment or community.</p> <p>Note that the health and safety of workers is the primary concern, and no action should be taken if it is not safe to do so.</p>
2	<p>For NOTIFIABLE POLLUTION INCIDENTS refer to section 2.4 below.</p> <p>For all other Category 1 incidents immediately advise RMS Project Site Management and relevant RMS Regional Environment Manager who must immediately advise Principal Manager Environment Operations (PME0) by phone.</p>
3	<p>Complete the environmental incident report form 624 and submit to Regional Environment Manager and the Environment Operations mailbox within 3 days of the date of the incident. The RMS Project Manager must approve the incident report and submit to the RMS Regional Environment Manager who will signoff as concurrence of receipt and submit to PME0 and the Environment Operations mailbox by email on the same day of receipt.</p>
Category 2 Incident Response	
1	<p>Stop work in relevant area (if necessary) and take immediate actions to prevent adverse impact to the environment or community.</p> <p>Note that the health and safety of workers is the primary concern, and no action should be taken if it is not safe to do so.</p>
2	<p>Advise relevant RMS Regional Environment Manager (Roads and Maritime contractors to advise Roads and Maritime Project Site Management).</p>
3	<p>Complete the environmental incident report form 624 (and submit to RMS Regional Environment Manager and the Environment Operations mailbox within 3 days of the date of the incident. The Regional Environment Manager will signoff and submit to PME0 and the Environment Operations mailbox by email on the same day of receipt.</p>
Reportable Event Response	
1	<p>RMS Regional Environment Manager to advise Principal Manager Environment Operations by email with copy to the Environment Operations mailbox. Roads and Maritime contractors to advise Roads and Maritime Project Site Management</p>

2.3 Environmental Incident Reporting

It is important that there is consistency in the way that an environmental incident is reported. The incident report form and any subsequent reports must only include factual information. Speculation about the causes and outcomes are not to be included. The completed reports must be forwarded through regional Environment Managers or relevant Project Manager to the Principal Manager Environment Operations.

The following email conventions must be used when emailing and reporting on environmental incidents:

2.3.1 The Environment Incident Report Form

All environmental incidents must be reported by project staff and project managers through the Environment Incident Report Form (refer Appendix 1, Form 624 available here or Form 400 for Regional Maintenance Delivery projects available here).

2.3.2 Environmental Incident Report Form Completion

All parts of the form must be completed

- The form must be signed off by:
 - the person making the report; and
 - the RMS Regional Environment Manager.
 - It is the responsibility of the RMS Regional Environment Manager to complete the section regarding the notification of the incident to the EPA and other relevant authorities.

2.3.3 Environment Operations mailbox

The Environment Operations mailbox is envops@rms.nsw.gov.au

2.3.4 Email Subject Line

When emailing an Environmental Incident Report to the Environment Operations mailbox, the subject line must include the incident category level (1 or 2), the project name and date. This will ensure that any subsequent emails relating to the incident may be adequately captured and tracked by Environment Branch. For example, the email subject line convention would be written as "Category 1 – Raleigh Road Upgrade – 1/10/15".

2.3.5 Submitting the Form

All environmental incident report forms must follow the following signoff workflow:

1. preparation and signoff by the person preparing the report (RMS or contractor staff)



2. approval by the RMS Project Manager,



3. signoff concurrence by the relevant RMS Regional Environment Manager and forwarding to the Environment Operations mailbox.

The Regional Environment Manager may also request further information regarding the incident. The Regional Environment Manager should submit the form within timeframes and include DRAFT in the subject line while waiting for the information which must be provided and resubmitted within the timeframes requested.

2.4 Regulatory Agency Notification

There are specific statutory requirements relating to the notification of pollution or environmental incidents to relevant regulatory agencies. These are summarised in table 3 below

Table 3: Environmental Incident Notification Requirements

Legislation	Regulating Authority	Section
POEO Act 1997 (see Section 2.5)	EPA and relevant authorities	Section 148 – requirement to immediately notify pollution incidents occurring during an activity that cause or threaten material harm to the environment.
Heritage Act 1977	EPA	Section 146 – requirement to notify the Heritage Council of the location of the relic once a relic has been discovered or located.
National Parks and Wildlife Act 1974	EPA	Section 89A – requirement to notify the location of an Aboriginal object that is the property of the Crown.
Commonwealth Aboriginal and Torres Strait Islanders Heritage Protection Act, 1984	Department of Environment	Section 20 – requirement to notify the Minister of the discovery of Aboriginal remains.
Contaminated Land Management Act 1997	EPA	Section 60 – requirement to notify if Roads and Maritime activities have contaminated land or if Roads and Maritime owns land that has been contaminated.
Rural Fires Act 1997	NSW Fire Brigades	Section 64 – requirement to notify an appropriate fire officer of the inability to extinguish any fire burning during a bush fire danger.

Should an environmental incident have the potential to impact on a drinking water supply, the relevant water supply authority must also be advised.

It is the responsibility of Environment Managers to liaise with Environment Operations Section prior to notifying regulatory agencies of relevant environmental incidents.

2.5 POEO Act Notification of Material Harm

Under Part 5.7 of the POEO Act, there is a duty to notify each relevant authority (identified below) of a pollution incident, where material harm to the environment is caused or threatened. Material harm includes actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial or that results in actual or potential loss (refer definitions in s147 of POEO Act) or property damage of an amount over \$10,000.

The following notification procedure only relates to pollution incidents.

Conservation, heritage and planning breaches described in Section 2.1 are not included in the definition of a pollution incident with respect to Part 5.7 of the POEO Act.

Roads and Maritime is not responsible for notifying a pollution incident caused by a traffic or vehicle accident where notification has already occurred. Notification is required by the person carrying on the activity “immediately upon becoming aware” of the incident.

IMPORTANT NOTE

- The following procedure is to be followed by all Roads and Maritime staff and contractors.
- Any actual or potential material harm to a person’s health or well being or the environment as a result of a pollution incident must be reported immediately to Principal Manager Environment Operations on (02) 8588 5765.
- Contractors who hold an environment protection licence for their activities are responsible for implementing their compliant Pollution Incident Response Management Plan including notifying EPA and the other relevant authorities in accordance Part 5.7 of the POEO Act **and** any relevant Conditions of their EPL
- Contractors undertaking works without an EPL are responsible for notifying Roads and Maritime, EPA and the relevant authorities in accordance Part 5.7 of the POEO Act.

As soon as a Roads and Maritime employee becomes aware of a **Category 1 pollution incident**, all Roads and Maritime environment officers and project managers are to **immediately** notify Principal Manager Environment Operations on (02) 8588 5765 of all **Category 1 pollution incidents**. RMD staff are to notify according to RMD Environmental Incident Fact Sheet. PME0 will assist in making an assessment of the incident and determine whether or not to formally notify the incident to the EPA and other relevant authorities.

If for any reason that PME0 is not contactable, staff should contact their regional Roads and Maritime Environment Managers (or Regional Maintenance Delivery Environmental Manager for Regional Maintenance Delivery projects) to assist in assessing whether an incident triggers the notification requirement.

If no assistance can be obtained within a reasonable time, you are required to notify the relevant authorities in the order of notification outlined in the table below and provide each agency with the information required in section 2.5 of this procedure. Even if you do not have all the information, you must notify each agency with the information you have at hand and ensure that they are updated as soon as further relevant information becomes available.

In circumstances where there is doubt about the need to notify or the relevance of a particular agency, Roads and Maritime should always err on the side of notification.
When in doubt, communicate!

2.5.1 Relevant Authorities to Notify

Table 4 provides the contact details for the authorities that need to be notified in the event of a material harm pollution incident.

Table 4: Appropriate Authorities for Part 5.7 Incident Notification

Relevant Authority	Contact Number
Fire and Rescue NSW	000 (for pollution incidents that present an immediate threat to human health or property) 1300 729 579 (for pollution incidents that do not present an immediate threat to human health or property)
EPA environment line	131 555
The Ministry of Health	Via the local Public Health Unit see Appendix 3
WorkCover Authority	131 050
The appropriate regulatory authority	Your Local Council or Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council)
Local Council	Please call Division of Local Government on 4428 4100 to find relevant local council contacts or visit their website on http://www.dlg.nsw.gov.au/

The appropriate contact for the relevant local council and Public Health Unit will vary. All necessary contact numbers should be found in advance and stored for immediate access should a pollution incident need to be notified.

Relevant authorities notification order

- **If the incident presents an immediate threat to human health or property, Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service should be contacted first for emergency assistance**
 - call Fire and Rescue NSW on 000 first then
 - EPA environment line
 - The Ministry of Health
 - WorkCover Authority
 - Local Authority (Council)

- **If there is not an immediate threat to human health or property:**
 - call EPA environment line first then
 - Local Authority (Council)
 - The Ministry of Health
 - WorkCover Authority
 - Fire and Rescue NSW on 1300 729 579

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

2.5.2 The relevant information to provide

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

Section 150 POEO Act - Relevant information to given

1. The relevant information about a pollution incident required under section 148 consists of the following:
 - a. the time, date, nature, duration and location of the incident,
 - b. the location of the place where pollution is occurring or is likely to occur, the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known,
 - c. the circumstances in which the incident occurred (including the cause of the incident, if known),
 - d. the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known,
 - e. other information prescribed by the regulations.
2. The information required by this section is the information known to the person notifying the incident when the notification is required to be given.

If the information required to be included in a notice of a pollution incident by subsection (1) (c), (d) or (e) is not known to that person when the initial notification is made but becomes known afterwards, that information must be notified in accordance with section 148 immediately after it becomes known.

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

Complying with these notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation such as an EPL condition or legislation administered by WorkCover.

Should Roads and Maritime receive a request from a regulatory authority for a written report regarding an environmental incident, the relevant Project Manager must immediately contact Environment Branch and Legal Branch for advice. Communications with Legal Branch, for the purpose of obtaining legal advice in relation to incidents, may be subject to legal professional privilege. Documents that may be the subject to legal privilege should be clearly identified and sent to Legal Branch prior to producing them to a regulatory agency. Such documents may not be required to be produced to the agencies under written notices to provide information. Environment Branch will provide advice and will co-ordinate a response with Legal Branch. Environment Branch and Legal Branch will assist in the investigation of incidents, prepare legal advice and assist with the preparation of reports to EPA, OEH and DP&I.

Appendix 1 Environmental Incident Report Form

Form 624 available [here](#) or Form 400 for Regional Maintenance Delivery projects available [here](#)

Environmental Incident Report – 624		Transport Roads & Maritime Services														
<p>Complete this form for all environmental incidents that occur due to Roads and Maritime Services works or on Roads and Maritime worksites. The purpose of this form 624 is to alert Environment Branch to potential environmental incidents. It does not represent the Roads and Maritime final position for any incident reported on this form.</p>																
Remember!	Complete all fields prior to submitting form. Be succinct, stick to the facts and do not make assumptions. Only record information you know to be correct.															
Project name:	Region:															
Contractor name:																
Incident details	Date	Time : am <input type="checkbox"/> pm <input type="checkbox"/> Duration hr: min														
Description (provide a brief description of what happened during the incident)	SAMPLE															
EXACT location of the incident (include chainage, landmarks, features, nearest cross street, etc to make it easier to identify later) - provide a sketch if appropriate																
Quantity or volume of material escaped or causing incident (provide an estimate if quantity unknown)																
Estimated distance to nearest waterway (can include stormwater drains and dry watercourses)																
What activity was being undertaken when the incident occurred?																
How was the incident identified? (e.g. Roads and Maritime employee, Council, community, complaint)																
Potential Category 1 Incident: (may involve one or more of the following – tick category, fill in table over page)																
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; padding: 5px;"><input type="checkbox"/> Pollution, or potential pollution, of waters with sediment or chemicals/fuels/oils that travel beyond the site boundary causing or potentially causing adverse impact to the environment, including discharges or spills to waters from the Rozelle Maritime marina or Maritime operated vessels.</td> <td style="width: 50%; padding: 5px;"><input type="checkbox"/> Unauthorised harm or damage to native vegetation, threatened species, endangered populations, endangered ecological communities or critical habitat.</td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Discharge of waters from site not in accordance with any applicable Minor Works memo or safeguard / Part 5 determination / approval / licence condition.</td> <td style="padding: 5px;"><input type="checkbox"/> Material harm to the environment or persons as per Part 5.7 of POEO Act.</td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Works undertaken outside approved areas, without required approval or environmental assessment.</td> <td style="padding: 5px;"><input type="checkbox"/> Unauthorised harm or damage to threatened aquatic species and protected marine vegetation or unauthorised dredging or reclamation works within a watercourse.</td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Unauthorised harm to Aboriginal objects and Aboriginal places or damage to any State or locally significant relic or Heritage item.</td> <td style="padding: 5px;"><input type="checkbox"/> Unauthorised damage or destruction to any State or locally significant relic or Heritage item.</td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> A spill or other incident that causes pollution to land or residual environmental impact.</td> <td style="padding: 5px;"><input type="checkbox"/> Emission of excessive levels of dust, or an offensive odour or noise that travel beyond the site boundary and might impact on nearby land users.</td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Breach of legislation, failure to comply with a Minor Works memo or safeguard / Part 5 determination / approval or permit/ environment protection licence condition.</td> <td style="padding: 5px;"><input type="checkbox"/> Unauthorised disposal or transport of waste.</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px;"><input type="checkbox"/> A fire that travels beyond the boundary causing or potentially causing adverse impact on the environment or community.</td> </tr> </table>			<input type="checkbox"/> Pollution, or potential pollution, of waters with sediment or chemicals/fuels/oils that travel beyond the site boundary causing or potentially causing adverse impact to the environment, including discharges or spills to waters from the Rozelle Maritime marina or Maritime operated vessels.	<input type="checkbox"/> Unauthorised harm or damage to native vegetation, threatened species, endangered populations, endangered ecological communities or critical habitat.	<input type="checkbox"/> Discharge of waters from site not in accordance with any applicable Minor Works memo or safeguard / Part 5 determination / approval / licence condition.	<input type="checkbox"/> Material harm to the environment or persons as per Part 5.7 of POEO Act.	<input type="checkbox"/> Works undertaken outside approved areas, without required approval or environmental assessment.	<input type="checkbox"/> Unauthorised harm or damage to threatened aquatic species and protected marine vegetation or unauthorised dredging or reclamation works within a watercourse.	<input type="checkbox"/> Unauthorised harm to Aboriginal objects and Aboriginal places or damage to any State or locally significant relic or Heritage item.	<input type="checkbox"/> Unauthorised damage or destruction to any State or locally significant relic or Heritage item.	<input type="checkbox"/> A spill or other incident that causes pollution to land or residual environmental impact.	<input type="checkbox"/> Emission of excessive levels of dust, or an offensive odour or noise that travel beyond the site boundary and might impact on nearby land users.	<input type="checkbox"/> Breach of legislation, failure to comply with a Minor Works memo or safeguard / Part 5 determination / approval or permit/ environment protection licence condition.	<input type="checkbox"/> Unauthorised disposal or transport of waste.		<input type="checkbox"/> A fire that travels beyond the boundary causing or potentially causing adverse impact on the environment or community.
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	<input type="checkbox"/> A fire that travels beyond the boundary causing or potentially causing adverse impact on the environment or community.															
Potential Category 2 Incident: (may involve one or more of the following – tick category, fill in table over page)																
<table style="width: 100%; border: none;"> <tr> <td style="width: 100%; padding: 5px;"><input type="checkbox"/> A procedural, administrative or technical breach that relates to the preparation or submission of documents, reports or other correspondence.</td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Failure to implement component of Environment Management Plan or work method statement that does not result in a Category 1 incident.</td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> Spills that do not leave the site boundary and are cleaned up without material environmental harm or residual environmental impact.</td> </tr> <tr> <td style="padding: 5px;"><input type="checkbox"/> A fire that is contained on site and does not cause or potentially cause adverse impact to the environment or community.</td> </tr> </table>			<input type="checkbox"/> A procedural, administrative or technical breach that relates to the preparation or submission of documents, reports or other correspondence.	<input type="checkbox"/> Failure to implement component of Environment Management Plan or work method statement that does not result in a Category 1 incident.	<input type="checkbox"/> Spills that do not leave the site boundary and are cleaned up without material environmental harm or residual environmental impact.	<input type="checkbox"/> A fire that is contained on site and does not cause or potentially cause adverse impact to the environment or community.										
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<input type="checkbox"/> Spills that do not leave the site boundary and are cleaned up without material environmental harm or residual environmental impact.																
<input type="checkbox"/> A fire that is contained on site and does not cause or potentially cause adverse impact to the environment or community.																

Any other details of the incident (including any information which did not fit in spaces above, as well as any special circumstances of the day or the location):

.....
.....
.....

What immediate actions/control measures were taken to rectify or contain the incident?

.....
.....
.....

What corrective action has been taken to prevent similar incidents recurring?

SAMPLE
.....
.....

Sign off (officer making report)

Print name:	Sign:
Position:	Date:

Approval (Roads and Maritime Project Manager)

Sign:	Print name:	Date:
-------------	-------------------	-------------

Notification to EPA and other relevant authorities

To be completed by the relevant Roads and Maritime Regional Environment Manager	
Was EPA notified?	<input type="checkbox"/> Yes <input type="checkbox"/> No - If No, provide reasons for not notifying EPA
Who notified them? Name:	Position:
Notification method:	<input type="checkbox"/> Telephone <input type="checkbox"/> On site Date: Time: am <input type="checkbox"/> pm <input type="checkbox"/>
Has there been a EPA Environment Line Complaint?	<input type="checkbox"/> Yes <input type="checkbox"/> No EPA Complaint No.
Were any of the following authorities notified?	<input type="checkbox"/> NSW Fire & Rescue <input type="checkbox"/> Local Government <input type="checkbox"/> WorkCover <input type="checkbox"/> Ministry of Health
Were any other authorities notified and why (eg Department of Planning and Infrastructure, Department of Primary Industries (Fisheries), Sydney Catchment Authority, SES).	
Is there an Environment Protection Licence for the project?	<input type="checkbox"/> Yes <input type="checkbox"/> No
▶ If Yes – was the Pollution Incident Response Management Plan implemented	<input type="checkbox"/> Yes <input type="checkbox"/> No

Concurrence (Roads and Maritime Regional Environment Manager)

Print name:	Sign:	Date:
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Comments

.....

Please submit all completed forms to Environment Branch by email to envops@rms.nsw.gov.au

APPENDIX 2 ROADS AND MARITIME CONTACTS

Position	Location	Phone	Mobile
General Manager Environment	North Sydney	8588 5730	
Principal Manager Environment Operations	North Sydney	8588 5765	0428 608 758
Principal Manager Environment Policy, Planning and Assessment	North Sydney	8588 5740	0439 595 361
Maritime Division Emergency Planner Officer	Rozelle office	9563 8476	0428 740 520
Senior Environment Specialist – Biodiversity	North Sydney	8588 5756	0439 595 361
Senior Environment Specialist - Heritage	North Sydney	8588 5754	0400 474 405
Environment Manager Motorways	North Sydney	8588 4372	0408 989 693
Environment Manager Sydney	Parramatta	8849 2516	0411 148 513
Environment Manager Western	Parkes	6861 1628	0418 851 454
Environment Manager Southern	Wollongong	6492 9515	0447 443 957
Environment Manager Northern	Grafton	6640 1072	0411 406 519
Environment Manager South-West	Wagga Wagga	6937 1634	0418 496 325
Environment Manager Hunter	Newcastle	4924 0440	0413 483 539
Environment Manager Pacific Highway North	Grafton	6640 1375	0419 248 583
Environment Manager Pacific Highway South	Newcastle	4924 0281	0411 126 989
Environmental Manager Regional Maintenance Delivery	Rockdale	9598 7721	0418 113 942

APPENDIX 3 CONTACT DETAILS FOR PUBLIC HEALTH UNITS

Public Health Unit	Contact Details	After Hours Contact
Goulburn Office	Locked Bag 11, Goulburn, 2580 Ph: 02 4824 1840 Fax: 02 4824 1831 / 4822 5038 (s)	Ph: 02 6080 8900 (diverts to Albury Base Hospital) - ask for Public Health Officer on call,
Albury Office	PO Box 3095, Albury, 2640 Ph: 02 6080 8900 Fax: 02 6080 8999	Ph: 02 6080 8900 (diverts to Albury Base Hospital) - ask for Public Health Officer on call,
Broken Hill Office	PO Box 457, Broken Hill, 2880 Ph: 08 8080 1499 Fax: 08 8080 1683 / 1196 (s)	Ph: 08 8080 1333 (Broken Hill Base Hospital) - ask for Public Health Officer on call, if no answer: Mob: 0417 685 259
Dubbo Office	PO Box 739, Dubbo, 2830 Ph: 02 6841 5569 Fax: 02 6841 5571 (s)	Ph: 02 6885 8666 (Dubbo Base Hospital) - ask for Public Health Officer on call, if no answer: Mob: 0418 866 397 - ask for Public Health Officer on call
Bathurst Office	PO Box 143, Bathurst, 2795 Ph: 02 6339 5601 Fax: 02 6339 5173 (s)	Mob: 0428 400 526 - ask for Public Health Officer on call
Newcastle Office	Locked Bag 10, Wallsend, 2287 Ph: 02 4924 6477 Fax: 02 4924 6490 / 4922 3164 (s)	Ph: 02 4924 6477 (diverts to John Hunter Hospital) - ask for Public Health Officer on call
Tamworth Office	Locked Mail Bag 9783, NEMSC 2348 Ph: 02 6764 8000 Fax: 02 6766 3890 (s)	Ph: 02 6764 8000 (diverts to Public Health Officer on call)
Matrville Office	PO Box 150, Matrville 2036 Ph: 02 9311 270 Fax: 02 9700 3747 (s)	Ph: 02 9311 2707
Port Macquarie Office	PO Box 126, Port Macquarie 2444 Ph: 02 6588 2750 Fax: 02 6588 2837	Pager Service: 1300 555 555 Communicable Disease: 48073 Environmental Health: 149 3771f no answer phone: Mob 0417 244 966 or Mob 0407 904 280

Public Health Unit	Contact Details	After Hours Contact
Lismore Office	PO Box 498, Lismore 2480 Ph: 02 6620 7585 Fax: 02 6622 2151 / 6620 2552 (s)	Pager Service: 1300 555 555 Communicable Disease: 48073 Environmental Health: 149 3771f no answer phone: Mob 0417 244 966 or Mob 0407 904 280
Hornsby Office	Hornsby Hospital, Palmerston Rd, Hornsby 2077 Ph: 02 9477 9400 Fax: 02 9482 1650 / 1358 (s)	Ph: 02 9477 9123 (Hornsby Hospital) - ask for Public Health Officer on call
Gosford Office	PO Box 361, Gosford, 2250 Ph: 02 4349 4845 Fax: 02 4349 4850 (s)	Ph: 02 4320 2111 (Gosford Hospital) - ask for Public Health Nurse on call
Randwick Office	Locked Bag 88, Randwick 2031 Ph: 9382 8333 Fax: 02 9382 8334 / 8314 (s)	Ph: 02 9382 2222 (Prince of Wales Hospital) - ask for Public Health Nurse on call
Wollongong Office	Locked Bag 9, Wollongong 2500 Ph: 02 4221 6700 Fax: 02 4221 6759 (s)	Ph: 02 4222 5000 (Wollongong Hospital) - ask for Public Health Officer on call
Eastern Zone(Camperdown Office) For Liverpool Area, please dial the Camperdown office.	PO Box 374, Camperdown 2050 Ph: 02 9515 9420 Fax: 02 9515 9440 Fax: 02 9515 9467 (s)	Ph: 02 9515 6111 (Royal Prince Alfred Hospital) - ask Public Health Officer on call
Penrith Office	PO Box 63, Penrith 2751 Ph: 02 4734 2022 Fax: 02 4734 3300 / 3444 (s)	Ph: 02 9845 5555 (Westmead Hospital) - ask for Public Health Officer on call
Parramatta Office	Locked Bag 7118, Parramatta BC 2150 Ph: 02 9840 3603 Fax: 02 9840 3608 / 3591 (s)	Ph: 02 9845 5555 (Westmead Hospital) - ask for Public Health Officer on call



TNR3N

Environmental Inspection Checklist

Work Area / Location:	
Inspection Date :	
Weather Conditions: Dry <input type="checkbox"/> Slight Wind <input type="checkbox"/> Calm <input type="checkbox"/> Rain <input type="checkbox"/> Strong Wind <input type="checkbox"/>	Rain in past 24 hrs:

Inspection Item	Acceptable (Y/N or n/a)	Supporting Evidence / Notes	Action required & location (Refer to Environmental Observation Report)
1. Environmental Documents			
Has an EWMS been developed & approved for area of works			
Have ECPs been developed for the area of works			
2. Water Quality			
Erosion controls required, (i.e. sediment fences, geofabric) installed & in good working condition			
Catch drains/controls installed in proximity to waterways/drainage lines			
Works within waterway buffer zone (50m)			
Temporary flow diversions installed in flowing waterways.			
3. Soil Conservation			
Stockpiles are away from waterways and drainage lines			
Do long term stockpiles require seeding			
Are areas of disturbed soil exposed to erosion			
4. Air Quality			
Is dust from construction visible during inspection			
Is a water cart available to wet down areas			
Have daily inspections been conducted for dust			
5. Flora			

TNR3N Environmental Inspection Checklist

Inspection Item	Acceptable (Y/N or n/a)	Supporting Evidence / Notes	Action required & location (Refer to Environmental Observation Report)
Is there protected/threatened flora present at area of works			
Are sensitive areas & protected vegetation protected with No-Go Zone fencing			
Are stockpiles kept away from No-Go zones			
6. Fauna			
Is there protected/threatened fauna present at area of works - Are controls in place			
7. Weed Management			
Are weed wash/brush down areas being used/available			
Plant utilising access/haul roads			
Area weeds being controlled on site e.g. has physical removal or spraying been conducted			
8. Landscape Rehabilitation			
Is topsoil being stockpiled separately			
Are works being conducted with minimal footprint			
9. Archaeology and Heritage			
Is there any potential for Indigenous Heritage items to be impacted within works zone			
Are Heritage No-Go and exclusion zones established and signed			
10. Groundwater			
Has groundwater been intercepted during works			
Is there a plan/procedure for dewatering			
11. Noise & Vibration			
Are works being conducted during normal working hours			
Is there potential for vibration impacts from works			
12. Hazardous Substances & Dangerous Goods			
Are spill kits available/accessible to plant operators			

TNR3N Environmental Inspection Checklist

Inspection Item	Acceptable (Y/N or n/a)	Supporting Evidence / Notes	Action required & location (Refer to Environmental Observation Report)
Is there evidence of hydraulic/vehicle oil spills on site			
13. Waste Management			
Is the site clean and waste bins available			
Are appropriate and segregated waste bins available			
14. Contamination Management			
Are contaminated stockpiles appropriately controlled			
Are contaminated areas fenced and sign posted			
Is there contamination present on site that has not been reported			
<p>Additional Items/ Opportunities for improvement/ Innovations</p>			
Inspection By:			
Signature:		Date:	



TNR3N Environmental Inspection Checklist



LLE703B

Environmental Observation Report

PACKAGE (Project specific):
WORK LLEEA:
WORK ACTIVITIES TAKING PLACE (At time of inspection):
PERSON(S) CONDUCTING INSPECTION:
WEATHER CONDITIONS (Up to last 72hrs):
INSPECTION TYPE: Rain Event <input type="checkbox"/> General Environment <input type="checkbox"/> Other (please specify):

STATUS: Open <input type="checkbox"/> Closed <input type="checkbox"/>	
INSPECTION DATE:	
ACTION PRIORITY/STATUS:	
1	Immediate action required to avoid environmental harm and/or actions not completed for the two previous inspections
2	High or medium priority action required and/or previous actions from last inspection not completed
3	Demonstrates good environmental management with no or only a few priority issues to be addressed

ELEMENT: Water Quality: Sediment Control: Air Quality: Noise and Vibration: Flora & Fauna: Cultural Heritage: Water Management: Contaminated Land: Dewatering: Other:

Environmental Consideration	Observation/ Recommended Action	Location	Due Date	Person Responsible	Action Taken	Priority/ Status	Date Closed	Supporting Docs
<i>Pre-populated by project</i>	<i>If this is only an observation no further detail is are required</i>	<i>Specific location</i>	<i>Priority of action decided by project</i>	<i>Foremen and above only</i>	<i>Can be undertaken whilst still on site or filled out by person responsible at a later date using Enablon</i>	<i>See above Action Priority/Status</i>	<i>Date</i>	<i>√ / x</i>



LLE703B Environmental Observation Report

Environmental Consideration	Observation/ Recommended Action	Location	Due Date	Person Responsible	Action Taken	Priority/ Status	Date Closed	Supporting Docs



LLE703B Environmental Observation Report

Environmental Consideration	Observation/ Recommended Action	Location	Due Date	Person Responsible	Action Taken	Priority/ Status	Date Closed	Supporting Docs

***Please refer to project documentation for due date and priority time frames.**

A copy of this completed Inspection Report must be returned to the Environmental/Services Coordinator