Coffs Harbour Bypass Early Works Construction Environmental Management Plan

Transport for NSW | November 2021

Document control

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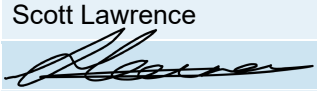
Endorsed by Environment Representative	Simon Williams & Duncan Thomson
Signed - ER Endorsed Email	
Dated 11/11/21	
Approved on behalf of TfNSW	Scott Lawrence
Signed	
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Distribution of controlled copies

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The document is uncontrolled when printed.

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List of emergency and key contacts

Position	Name	Phone
EPA pollution hotline	n/a	131 555
Fire and Rescue NSW	n/a	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)
NSW Ministry of Health	n/a	02 9391 9000 for NSW Ministry of Health 02 6589 2120 for Port Macquarie Public Health Unit
SafeWork NSW	n/a	131 050
Coffs Harbour City Council	n/a	02 6648 4000
24 hour community information line	n/a	1800 550 621
TfNSW Environmental Manager	Mick Browne	M 0437 018 941
Project Manager	[insert detail]	W [insert detail] M [insert detail]
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Glossary/Abbreviations

Abbreviation	Expanded text
ASS	Acid Sulfate Soils
CEMP	Construction Environmental Management Plan
Compliance audit	Verification of how implementation is proceeding with respect to a Construction Environmental Management Plan (CEMP) (which incorporates the relevant approval conditions).
DPIE	Department of Planning, Industry and Environment
DPIE, EESG	Department of Planning, Industry and Environment, Environment, Energy and Science Group
EIS	Environmental Impact Statement
EEC	Endangered Ecological Community
EPA	NSW Environment Protection Authority
EPBC-CoA	Federal Conditions of Approval under the EPBC Act
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.
Environmental Manager [EM]	Project Construction & Early Works Environmental Manager
Environmental Representative [ER]	A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental work method statement
Hold point	Is a verification point that prevents work from commencing prior to approval from Roads and Maritime Services
MCoA	Minister's Conditions of Approval

Abbreviation	Expanded text
Minister, the	Minister for Planning and Public Spaces (or delegate)
Non-compliance	Failure to comply with the requirements of the project approval or any applicable licence, permit or legal requirements.
Non-conformance	Failure to conform to the requirements of project system documentation including this CEMP or supporting documentation.
PESCP	Progressive Erosion and Sediment Control Plan
Principal, the	TfNSW
Project	Coffs Harbour Bypass Project
POEO Act	Protection of the Environment Operations Act 1997 (NSW)
REMMs	Revised Environmental Management Measures
ROL	Road occupancy licence
SAP	Sensitive Area Plan
SEAR's	Secretary's Environmental Assessment Requirements
TfNSW	Transport for NSW

1. Introduction

1.1 Background

On behalf of the Australian and NSW governments, Transport for NSW (TfNSW) is progressively upgrading the Pacific Highway to dual carriageway between the Hunter and NSW/Queensland border.

TfNSW propose to construct the Coffs Harbour Bypass (the project). The Project is located in the Coffs Harbour local government area (LGA) about three kilometres west of the Coffs Harbour central business district, about 540 kilometres north of Sydney and about 400 kilometres south of Brisbane.

The Project includes a 14 kilometre bypass of Coffs Harbour, including a 12-kilometre new build from North of the Sawtell Road Interchange to the Southern end of the Sapphire to Woolgoolga upgrade. The Project would provide a four-lane divided highway that bypasses Coffs Harbour, passing through the North Boambee Valley, Roberts Hill and then traversing the foothills of the Coffs Harbour basin to the west and north to Korora Hill.

An environmental impact statement (EIS) was prepared in accordance with Division 5.2 of the NSW *Environmental Planning and Assessment Act 1979* as Critical State Significant Infrastructure (CSSI). The EIS was exhibited by the Department of Planning, Industry and Environment (DPIE) from 11 September 2019 to 27 October 2019. During the exhibition of the EIS, 186 submissions were received from government agencies, stakeholders and the community. A Submissions Report was prepared and made available in June 2020 via the project website.

TfNSW also made a number of amendments and refinements to the concept design as exhibited in the EIS. A separate Amendment Report was prepared and made available in June 2020 which outlined the proposed design and construction amendments to the project and assessed the environmental impact of these changes. The DPIE considered the Submissions Report and the Amendment Report during its assessment of the Project. The Project was approved on 2 November 2020 subject to conditions of approval.

The Project is also a controlled action under the *Environment Protection and Biodiversity Conservation* (EPBC) *Act 1999* and on 8TH December 2020 a separate approval was received from the Australian Minister for the Environment.

Further information about the project is provided in Chapter 2.

1.2 Purpose of this EWCEMP

This Early Works Construction Environmental Management Plan (EWCEMP) and Environmental Work Method Statement (EWMS) for early works outlines how the contractor/s will minimise the environmental risks, and achieve environmental outcomes on the Project by providing a structured approach to ensure appropriate environmental management measures and controls are implemented.

A detailed description of the Project is provided in Chapter 5 and 6 of the EIS.

The EWCEMP has been generally prepared in accordance with:

- TfNSW QA Specification G36, G38 and G40
- The project approval
- The requirements of the relevant environmental management plan (EMP) guidance as specified by the DPIE.

- AS/NZS ISO 14001.

In particular, this EWCEMP:

- Describes the Project and provides detail on the early works activities to be undertaken
- Provides specific mitigation measures and controls that can be applied on-site to avoid or minimise negative environmental impacts associated with the early works
- 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
- Outlines a monitoring regime to check the adequacy of controls as they are implemented during early works.

This EWCEMP is the overarching document in the environmental management system for the project that includes a number of management documents. It is applicable to all staff and sub-contractors associated with the early works associated with the construction of the Project. It only applies to early works as described in Section 2.4 of this document.

1.3 Endorsement and approval

The current stage of early works do not trigger construction under the project's conditions of approval. However, this EWCEMP has been prepared by TfNSW to demonstrate how minor impacts will be effectively managed and has been provided to the project Environmental Representative for review to confirm management measures are appropriate.

1.4 Distribution

This EWCEMP 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.

1.5 EWCEMP revision

A document review process ensures that environmental documentation including this EWCEMP is updated as appropriate for the specific works that are occurring on-site during the early works period of the Project. This includes the management review process described in Chapter 8.

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 Manager or Environmental Officers to prepare the revised documents.

The revised document will then be issued to the Project Manager for certification of the changes and to the Environmental Representative for review to confirm management measures are appropriate. Minor changes would typically include those that:

- Are editorial in nature eg staff and agency/authority name changes
- Do not increase the magnitude of impacts on the environment when considered individually or cumulatively

- Do not compromise the ability of the project to meet approval or legislative requirements.

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2. Project description

2.1 General features

The location and key features of the Project include:

- Four-lane divided highway from south of Englands Road roundabout to the dual carriageway highway at Sapphire
- Bypass of the Coffs Harbour urban area from south of Englands Road intersection to Korora Hill
- Upgrade of the existing Pacific Highway between Korora Hill and the dual carriageway highway at Sapphire
- Grade-separated interchanges at Englands Road, Coramba Road and Korora Hill
- A one-way local access road along the western side of the Project between the southern tie-in and Englands Road, connecting properties to the road network via Englands Road
- A new service road, located east of the project, connecting Solitary Islands Way with James Small Drive and the existing Pacific Highway near Bruxner Park Road
- Three short tunnels through ridges at Roberts Hill (around 190 metres long), Shephards Lane (around 360 metres long), and Gatelys Road (around 450 metres long)
- Relocation of the Kororo Public School bus interchange and Luke Bowen footbridge.

The Project is shown in Figure 2.1. A detailed description of the Project is provided in Chapter 5 of the EIS. The construction of the Project is described in Chapter 6 of the EIS.

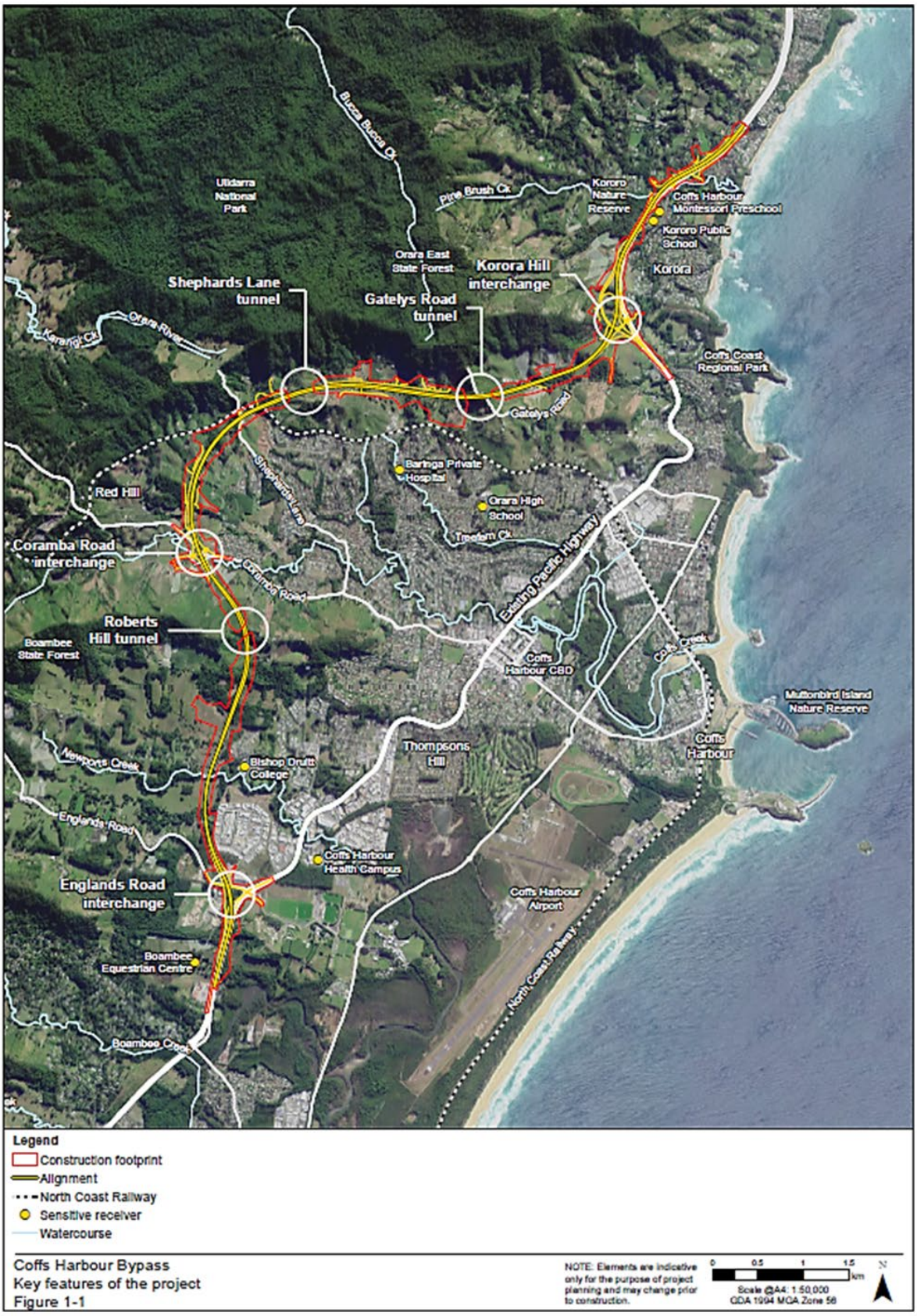

Figure 2.1 Location of Coffs Harbour Bypass Project

2.2 Description of the project early works

The early works form part of the approved project. A detailed description of the early works is presented in the following sections.

2.3 Location

The Project early works will be undertaken between Boambee north of Sawtell Road Interchange to the southern end of the Sapphire to Woolgoolga project

2.4 Scope of the project early works

The early works for Coffs Harbour Bypass (CHB) involves minor works along various locations of the 12-kilometre new build section from south of Englands Road to Korora Hill in the north and the two-kilometre upgrade of the existing highway between Korora Hill and Sapphire. In addition, some services and utilities relocations are required outside of the nominated project boundary.

The early works only include low impact works that do not meet the definition of construction in the project approval, as well as minor construction ancillary facilities in accordance with MCoA A17.

Specific work elements include but are not limited to:

- Surveying and boundary establishment
- Environmental monitoring of groundwater and surface water
- Establishment of ancillary sites and laydown areas identified in the EIS or approved by the Environmental Representative as not triggering construction.
- Boundary fencing
- Demolition of acquired buildings
- Construction of new Rural Fire Shed
- Slashing and clearing of existing access tracks
- Clearing for early works activities which don’t impact Threatened Ecological Communities or Threatened Species
- Archaeological salvage and cultural salvage
- Services and public utilities adjustments including but not limited to:
    - Stormwater adjustments
    - Sewer adjustments
    - Electrical adjustments
    - Telecommunications adjustments
- Translocation of threatened Flora
- Nest box assessment & installation
- Microbat surveys
- Environmental monitoring
- At residence noise treatment

- Treatment of Panama Disease, or likely Panama Disease, affected vegetation
- Revegetation and landscaping works
- Establishment of minor creek crossings

2.5 Construction timeline

The early works is expected to take between six (6) and eighteen (18) months.

The EWCEMP and other required documentation for the construction of the remaining components of the Project will be provided as the detailed design stage develops.

2.6 Minor Construction Ancillary Facilities

Temporary minor ancillary sites (lunch sheds, office sheds, portable toilet facilities and the like) will be required to support construction of the project early works.

Typically, the minor facilities will include:

- Office accommodation
- Staff amenities (such as lunchrooms and toilets)
- Light vehicle and plant parking
- Material, equipment and chemical storage.

A number of ancillary sites have been approved in the EIS and Amendment Report. Circumstances may arise during early works where additional, or changes to the location of, ancillary facilities are required.

Where this situation arises an assessment against MCoA A17 would be undertaken.

3. Planning

3.1 Preparation and availability of the EWCEMP

The EWCEMP for this Project has been prepared in accordance with requirements of the Post-approval requirements for State Significant Infrastructure Projects (SSI): Environmental Management Plan Guideline (April 2020). It incorporates all relevant requirements of the EIS documentation and all relevant licences, permits and approvals for the Project.

3.1.1 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 TfNSW 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
- Use equipment with noise control features where available and ensure that it is properly maintained
- Take all feasible and reasonable steps to ensure compliance with the requirements of the Project Approval and documents referenced in the Project Approval
- Take all feasible and reasonable steps to ensure compliance with the requirements of this EWCEMP.

3.2 Regulatory requirements and compliance

3.2.1 Legislation

Any changes made to the legal requirements will be communicated to the wider team where necessary through toolbox talks, specific training and other methods detailed in Chapter 5.

3.2.2 Approvals, permits and licensing

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 TfNSW or contractors to obtain, renew or comply with such necessary licences, permits or approvals except as provided under Section 5.23 of the EP&A Act.

3.3 Environmental aspects and impacts

A risk management approach will be used 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
- 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.

3.3.1 Heritage

Any heritage items discovered while undertaking the Projects early works will be managed through the TfNSW Unexpected Finds Procedure. The Unexpected Finds Procedure is included in **Appendix 2**.

Prior to works, all Contractors will be provided sensitive area plans (SAPs) to review and identify any Cultural Heritage constraints.

No works are to occur within PADS or sites unless approval has been given by TfNSW.

Environmental No-Go Zone delineation to be installed prior to works where applicable.

3.3.2 Fauna and Flora

The works area will be positioned so that access can be obtained without clearing EEC or TEC and with minor impacts to native vegetation. Where works must be conducted within Threatened Ecological Communities (TEC) areas, an ecologist would be present on-site to delineate the works area and prevent impact to TECs and native vegetation. The ecologist must be present on-site during clearing of mapped Plant Community Types [PCTs] or other potential habitat identified trees.

Any potential impacts to EEC or TEC during early works must be assessed by TfNSW to confirm the proposed works are in accordance with the DPIE Approved Utility Relocation and Geotechnical Activities – Low Impact Submission (Revision 1-1, dated July 2021) and supporting documentation.

If an existing access is not present or suitable, temporary access tracks may be constructed without clearing native vegetation upon assessment & approval.

No equipment storage or stockpiling is to occur within drip lines of trees.

Declared noxious weeds are to be managed according to requirements under the Biosecurity Act 2015 and Guide 6 (Weed Management) of the RTA Biodiversity Guidelines 2011.

3.3.3 Waste

Waste generated and discovered on-site will be managed by;

- Adopting the waste minimisation hierarchy principles when disposing of waste including avoid, reduce, re-use, recycle and dispose.

- Promote waste segregation and separation to facilitate reuse and recycling where practical.
- All potentially contaminated waste material and soil require assessment, classification and disposal in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (OEH 2009), the Protection of the Environment Operations Act 1997 and the Contaminated Land Management Act 1997. This assessment would be undertaken by an appropriately qualified professional.
- All concrete is to be washed out at approved concrete washout locations.
- Waste is not to be burnt on site.
- Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.
- Records of waste disposal are to be provided by all contractors.

In the event of discovery of contaminated material or asbestos **Appendix 9** includes the Unexpected Contaminated Land and Asbestos Finds Procedure

3.3.4 Environmental Incidents

Environmental incidents on the Project will be managed in accordance with the TfNSW Environmental Incident Classification & Reporting Procedure [**Appendix A5**]. The Procedure was developed to ensure TfNSW has the processes to classify and report environmental incidents that may occur during the Projects activities and to comply with the relevant statutory obligations to report incidents.

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

- Spills of fuels, oils, chemicals and other hazardous materials.
- 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.
- 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; CoA 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.
- Unauthorised dumping of waste.

Notification of environmental incidents will be in accordance with Appendix A8 in Table 2 and Condition A39 of the Ministers Conditions of Approval.

TfNSW and CHB Project team will maintain records relating to environmental incidents.

3.3.5 Water

Works around water ways will be managed in the following ways;

- Equipment/machinery will have double-sheathed hydraulic lines and where possible, use biodegradable hydraulic oils (ie. Panolin)

- Spill kits, including hydrocarbon booms will be available in the immediate work area.
- All field crews must be familiar with the contents of the spill kit and confident in their use.
- All contaminated spill material is to be disposed of through appropriate methods (ie. Hydrocarbons bin / licenced waste facility)
- All spills must be reported to the site environmental officer immediately
- No fuels, oils or other dangerous goods are to be stored on site without the approval of TfNSW.
- Refuelling of plant and equipment is to occur with the use of spill traps and be located a minimum of 50 meters from major drainage lines or waterways.

3.3.6 Erosion and sediment management

Erosion and Sediment Control Plans (ESCPs) are 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. ESCP will be developed and implemented across the Project where there is a risk of erosion and sediment loss.

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

ESCP will be developed by environment staff in consultation with, 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 Manager will approve ESCPs and be consulted for minor changes thereafter. ESCPs will be developed for all work areas prior to commencing activities.

3.4 Environmental policy

The environmental policy describes TfNSW'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 if the TfNSW Environmental Policy is **Appendix A3**

3.5 Early Works Assessment and Approval

3.5.1 Consistency Assessment – Low Impact Works

Any proposed early works activity must be communicated to the Environmental Manager. The Environmental Manager will then undertake a consistency assessment (where relevant) in consultation with the TfNSW Environmental Manager Northern Project Office, Environmental Representative and Acoustic Advisor (as required) to confirm the proposal is low impact works as defined in the Project Approval.

3.5.2 Minor Ancillary Facilities

Temporary minor ancillary sites (lunch sheds, office sheds, portable toilet facilities and the like) will be required to support construction of the project early works.

Typically, the minor facilities will include:

- Office accommodation

- Staff amenities (such as lunchrooms and toilets)
- Light vehicle and plant parking
- Material, equipment and chemical storage.

A number of ancillary sites have been approved in the EIS and Amendment Report. Circumstances may arise during early works where additional, or changes to the location of, ancillary facilities are required.

Where this situation arises an assessment against MCoA A17 would be undertaken.

In accordance with A17, Minor ancillary facilities (lunch sheds, offices sheds, portable toilets, and the like) can be established and used where they have been assessed in the documents listed in Condition A1, or where they satisfy the following criteria;

A) Located within or adjacent to the construction boundary; and

B) have been assessed by the ER to have;

- Minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the Interim Construction Noise Guideline (DECC 2009), traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and
- Minimal environmental impact with respect to waste management and flooding, and
- No impacts on biodiversity, soil and water, and heritage items beyond those already approved in the Ministers Conditions of Approval

The Minor Ancillary Checklist to facilitate the assessment is included in **Appendix A4**.

3.5.3 Stockpile Management

During early works a number of temporary stockpiles may be required. Stockpile sites may be required to store material including, but not limited to:

- Excavated material to be re-used
- Materials for use in Early Works
- Acid Sulfate Soil subject to treatment prior to reuse
- Excavated material unsuitable for reuse
- Excess concrete, pavement, rock, steel and other material stored for either future use in the Project or prior to removal from site
- Treatment of likely Panama Disease affected vegetation
- Topsoil, mulch, excess timber for landscaping, erosion control and revegetation works.

Stockpiles are to be managed using site specific erosion and sediment control plans and be suitably located using the below criteria:

- Located at least 5 metres clear of all areas of possible concentrated water flow
- Located at least 10 metres from a waterway

4. Environmental management system documentation

4.1.1 Early Works Construction Environmental Management Plan (EW CEMP)

This EWCEMP provides the system to manage and control the environmental aspects of the project during pre-construction. It identifies all requirements applicable to activities described in Chapter 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 EWCEMP have been developed with consideration of the Project approval requirement, safeguards and mitigation measures presented in the environmental assessment and approval documents. This EWCEMP establishes the system for implementation, monitoring and continuous improvement to minimise impacts from the Project on the environment.

This EWCEMP is consistent with:

- *Environmental Management Plan Guideline for Infrastructure Projects* (DPIE, 2020)
- AS/NZS ISO14001: 2004, 'Environmental Management Systems - requirements with guidance for use'
- TfNSW QA Specification G36.

4.1.2 Environmental Work Method Statements (EWMS)

EWMS are prepared to manage and control all activities that have the potential to negatively impact on the environment. EWMS will be prepared prior to the commencement of relevant early works activities on site and will incorporate relevant 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.

Environmental Work Method Statements (EWMS's) have been developed for early works activities, these include EWMS001 Early Works Activities & EWMS002 Clearing and Grubbing.

These EWMS will be reviewed and updated as required if future Early Works packages include additional scope of works, activities and environmental risks that are not currently captured within the two approved EWMS. (Refer to Appendix A1).

The EWMS will include at least the following elements:

- Description of the work activity, including any plant and equipment to be used
- Outline of the sequence of tasks for the activity, including interfaces with other early works activities
- Identification of any environmental and/or socially sensitive areas, sites or places
- Identification of potential environmental risks/impacts due to the work activity
- Mitigation measures to reduce the identified environmental risk, including assigned responsibilities to site management personnel
- Process for assessing the performance of the implemented mitigation measures.

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 by signing an attendance record prior to commencing work.

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

4.1.3 Sensitive Area Plans (SAPs)

The Project traverses environmental and socially sensitive areas/sites. To assist pre-construction planning and on-site construction management, these site constraints are consolidated on series of map-based sheets that extend the length of the project. Sensitive area maps include information pertaining, but not limited to:

- Noise sensitive receivers eg 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
- Recorded threatened fauna sightings
- National Parks / Nature Reserves.

The sensitive area plans are presented in the Projects GIS portal. The SAP's are a working element of the EWCEMP and will be revised throughout the early works 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 early works personnel during the project.

4.1.4 Progressive Erosion and Sediment Control Plans (PESCPs)

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 will be developed and implemented across the Project where there is a risk of erosion and sediment loss.

PESCPs may be produced in conjunction with EWMS to provide more detailed site-specific environmental mitigation measures. Enhanced erosion sediment controls will be required in catchments that flow directly to the Solitary Islands Marine Park and in areas likely to be impacted by Panama Disease.

PESCPs will be developed by environment staff in consultation with site engineers, foreman and other relevant site personnel, as required. They will be modified to reflect site condition at the time of construction. The TfNSW Environmental Manager will review PESCPs in the first instance. Minor changes thereafter will be approved by environment staff in consultation with the TfNSW Environmental Manager, as required.

PESCPs will be developed for all work areas prior to commencing activities.

4.2 Resources, responsibilities and authority

The key environmental management roles and responsibilities for the early works phase of the project are described below.

4.2.1 Environmental Representative

The environmental responsibilities of the Environmental Representative as detailed in MCoA A25 include, but are not limited to, the following:

MCoA25 - For the duration of the work or as agreed with the Planning Secretary, the approved ER must:

(a) receive and respond to communication from the Planning Secretary in relation to the environmental performance of the CSSI;
(b) consider and inform the Planning Secretary on matters specified in the terms of this approval;
(c) consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community;
(d) review documents identified in Conditions A9, A15, C1, C4 and C13 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this approval and if so:
    (i) make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary); or
    (ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary/Department for information or are not required to be submitted to the Planning Secretary/Department);
(e) regularly monitor the implementation of the documents listed in Conditions A9, A15, C1, C4 and C13 to ensure implementation is being carried out in accordance with the document and the terms of this approval;
(f) as may be requested by the Planning Secretary, help plan, attend or undertake audits of the development commissioned by the Department including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under Condition A34 of this approval;
(g) as may be requested by the Planning Secretary, assist the Department in the resolution of community complaints;
(h) assess the impacts of minor ancillary facilities comprising lunch sheds, office sheds and portable toilet facilities as required by Condition A17 of this approval; and
(i) consider any minor amendments to be made to the CEMP, CEMP Sub-plans and monitoring programs that comprise updating or are of an administrative nature and are consistent with the terms of this approval and the CEMP, CEMP Sub-plans and monitoring programs approved by the Planning Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of this approval;
(j) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading “Environmental Representative Monthly Reports.” The Environmental Representative Monthly Report must be submitted within seven days following the end of each month for the duration of the ER’s engagement for the CSSI.

4.2.2 TfNSW Environmental Manager

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

- Review any environmental management plans and related documents prepared for the Project
- Prepare any environmental management plans, assessments and related documents for the Project
- Review and consider minor project refinements that are consistent with the Project EIS in accordance with the TfNSW Division 5.2 Environmental Assessment Procedure
- Monitor the environmental performance of the Project in relation to TfNSW requirements

- Provide guidance and where appropriate, monitor compliance with DPIE post approval document submission requirements.
- Provide the Environmental Representative with all documentation required to perform their functions.
- Reporting and managing close-out of environmental incidents.

4.2.3 TfNSW Environmental Manager Northern Project Office

The environmental responsibilities of the TfNSW Environmental Manager Northern Project Office include (but are not limited to) the following:

- Evaluate and advise on compliance with TfNSW environmental requirements
- Review and approve any environmental management plans for the project or related activities that are not required to be approved by DPIE.
- Ensure activities proposed as early works are consistent with the project's condition of approval.

4.2.4 Project Managers

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

- Ensure all works comply with relevant regulatory and project requirements
- Ensure the requirements of this EWCEMP are fully implemented, and in particular, that environmental requirements are not secondary to other construction requirements
- Endorse and support the project environmental policy attached as **Appendix A3**
- Liaise with TfNSW, Environmental Representative and other government authorities as required
- Participate and provide guidance in the regular review of this EWCEMP and supporting documentation
- Provide adequate resources (personnel, financial and technological) to ensure effective development, implementation and maintenance of this EWCEMP
- 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
- Stop work immediately if an unacceptable impact on the environment is likely to occur.

4.2.5 Contractors Manager

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

- Plan early works in a manner that avoids or minimises impact to environment
- Ensure the requirements of this EWCEMP are fully implemented
- Ensure contractors personnel manage early works in accordance with statutory and approval requirements
- Support the TfNSW Environmental Manager in achieving the Project environmental objectives
- Ensure environmental management procedures and protection measures are implemented
- Ensure all Project personnel attend an induction prior to commencing works

- Liaise with TfNSW, Environmental Representative and other government authorities as required
- Stop work immediately if an unacceptable impact on the environment is likely to occur.

4.2.6 TfNSW CHB Communications Manager

The environmental responsibilities of the TfNSW CHB Communications Manager include, but are not limited to, the following:

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

4.2.7 Project/Site Engineers

The environmental responsibilities of the site / 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 EWCEMP and supporting documentation, including the implementation of all environmental controls
- Identify any environmental risks
- Identify resource needs for implementation of EWCEMP 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
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to the Superintendent and construction Environmental Manager.

4.2.8 Wider Project Team (including sub-contractors)

The environmental responsibilities of the wider project team (including sub-contractors) include (but are not limited to) the following:

- Comply with the relevant requirements of the EWCEMP, 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
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the Project Manager, Construction Manager, or construction Environmental Manager.

5. Competence, training and awareness

To ensure that this EWCEMP is effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements of this EWCEMP. The TfNSW Environmental Manager will coordinate the environmental training in conjunction with other training and development activities (eg safety).

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 EWCEMP and to ensure the implementation of REMMs.

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

The TfNSW Environmental Manager (or delegate) will conduct the environmental component of the site inductions.

The environmental component of the induction must cover all elements of the EWCEMP and would include as a minimum:

- Relevant details of the EWCEMP including purpose and objectives
- Requirements of due diligence and duty of care
- Conditions of environmental licences, permits and approvals
- Potential environmental emergencies on site and the emergency response procedures
- Reporting and notification requirements for pollution and other environmental incidents
- High risk activities and associated environmental safeguards
- Working in or near environmentally sensitive areas
- Specific environmental management requirements and responsibilities
- Mitigation measures for the control of environmental issues
- Incident response and reporting requirements
- The existence of EWMS for high risk activities
- Information relating to the location of environmental constraints.
- Key environmental issues

A record of all environment inductions will be maintained and kept on-site. The TfNSW Environmental Manager 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 EWCEMP 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 the early works program.

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):

- Hours of work
- Erosion and sedimentation control
- Emergency and spill response
- Aboriginal and non-Aboriginal heritage
- Threatened species, endangered ecological communities, clearing controls and vegetation protection
- Weed management
- Impacts to sensitive receivers
- Dust control.
- Panama disease management

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

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 early works.

Another way to inform construction personnel will be through the development and distribution of awareness notes. These will typically take the form of a poster, booklet, or similar and will be distributed to any workers involved. 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.

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 to the day's work.

The works supervisor 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.

Any variation to the planned daily pre-start schedule needs to be submitted to the Principal and approved. 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.

5.4 Working hours

Approved working hours for normal construction on this project are:

- Monday to Friday: 7am to 6pm
- Saturday: 8am to 1pm
- Sunday and public holidays: no work

Any works outside the Standard hours outlined above will need to be addressed and approved through the Out Of hours Protocol. Approvals for any changes will be included and attached to this EWCEMP.

6. Communication

6.1 Internal communication

Clear lines of communication throughout all levels and functions (eg 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 early works activities.

Regular meetings may also be scheduled with the Environmental Representative and relevant TfNSW 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 TfNSW Environmental Manager will be the main point of contact regarding specific environmental issues. The TfNSW Environmental Manager has the responsibility to report on the ongoing environmental performance of the project to TfNSW and the Environmental Representative. The TfNSW Environmental Manager will report regularly to TfNSW on progress and any key environmental matters.

6.3 Community liaison and/or notification

The stakeholder and community communication will support delivery of the early works to:

- Provide an open, accountable and transparent involvement process which can demonstrate how community and stakeholder input has been considered
- Provide a range of accessible opportunities for stakeholders, interested groups, and the wider public to be sufficiently informed about the project and contribute informed input
- Provide two-way communication channels enabling timely intervention aimed at resolving issues raised by community and stakeholders
- Facilitate a positive reputation outcome for the project and TfNSW that supports future operations, builds on existing relationships and results in constructive working relationships with the community and stakeholders.

6.3.1 Community consultation approach

During the early works phase, the Project focus is on providing information about the early works program, minimising potential impacts and providing timely responses to concerns raised by stakeholders.

Providing accurate and current information is essential to managing community expectations and encouraging a broader understanding of the Project and its benefits.

6.3.2 Complaints management

A Complaints and Enquiries Procedure, consistent with AS 4269: Complaints Handling, has been developed for the Project.

All community inquiries and complaints related to the early works activities will be referred to the 24-hour community information line (1800 550 621). A postal address (PO Box 546 Grafton NSW 2460) and email address (coffsharbourbypass@rms.nsw.gov.au) 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 early works and are provided on the project website.

Records of all complaints received will include the following details:

- Date and time of the complaint
- Location complaint refers to
- Method by which the complaint was made
- Any personal details of the complainant
- The nature of the complaint
- Action taken in relation to the complaint and any follow up
- If no action taken, reasons why.

This information will be included in a Communications Register in accordance with the CCS.

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 will be closed off in the stakeholder database. At all times the stakeholder will be kept informed of when they will receive a response.

The TfNSW Environmental 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. Inspections, monitoring and auditing

7.1 Environmental inspections

Copies of all environmental inspection reports prepared by Environmental staff and others if required, will be kept with the project records and closed out within the agreed timeframes.

7.1.1 Weekly and post rainfall site inspections

The TfNSW Environmental Manager and/or their team will undertake routine and post rainfall inspections of the work sites to evaluate the effectiveness of environmental controls. Post rainfall inspections would be undertaken after more than 20mm of rain in a 24 hr period. The TfNSW Environmental Manager and/or their team will record inspection findings on an inspection checklist form.

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 required and an implementation priority. Actions will be closed out in accordance with the identified priority and evidence of close out would be kept on file.

7.1.2 Environmental Representative and TfNSW

The Environmental Representative and TfNSW staff will undertake regular inspections of works sites, and in particular critical activities throughout early works for the project. Inspections by the Environmental Representative and TfNSW project staff would typically occur on a fortnightly or monthly basis depending on the complexity and anticipated risks associated with the stage of early works. Deficiencies and required actions will be analysed and prioritised at the completion of the inspection and timeframes for implementation of corrective actions agreed.

7.2 Environmental monitoring

Monitoring will be undertaken to validate the impacts predicted for early works activities, to measure the effectiveness of environmental controls and implementation of this EWCEMP, and to validate noise predictions relative to the approval requirements identified in consistency assessments.

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

7.3 Internal Review

Internal reviews will be undertaken for the early works on a six (6) monthly basis throughout the project. The purpose of the reviews are to verify compliance with:

- This EWCEMP and EWMSs
- Approval requirements
- Any relevant legal and other requirements (eg licenses, permits, regulations, TfNSW contract documentation).

7.4 Non-conformity, corrective and preventative actions

The Environmental Representative, TfNSW Environmental Manager Northern Project Office or public authority may raise a non-conformance or improvement opportunity..

A non-conformance is the failure or refusal to comply with the requirements of this EWCEMP 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.

Non-conforming activities may be stopped, if necessary, by the TfNSW Environmental Manager, Environmental Officers or Project / Site Engineer following consultation with the Project Director or delegate. The works will not commence until a corrective / preventative action has been closed out.

8. Review and improvement

Management reviews are undertaken as part of the continual improvement process.

The TfNSW Environmental Manager will review the EWCEMP and its operation and implementation at least half way from early works commencement. Additional reviews will be undertaken as required. 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 EWCEMP to ensure compliance.

9. Records of environmental activities

9.1 Environmental records

The TfNSW Environmental Manager is responsible for maintaining all environmental management documents and records as current at the point of use. Types of documents and 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
- Minutes of EWCEMP and construction environmental management system review meetings and evidence of any action taken
- EWCEMP and Sub Plans
- EWMS

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.

9.2 Document control

TfNSW, will coordinate the preparation, review and distribution, as appropriate, of the environmental documents and records listed above. During the early works phase of the project, the environmental documents and records will be stored at the main site office.

Appendices

Appendix A1 Environmental Work Method Statements

Transport for NSW	Environmental Work Method Statement	EWMS reference number	EWMS
	Early works activities	EWMS001	

Part 1	Project	Coffs Harbour Bypass
	Project no	

Approval to use this EWMS

Business unit	Environment Regions	Works Centre address	76 Victoria Street, Grafton, NSW 2460

Name	Position	Signature	EWMS issue date

Persons responsible for supervising the work, training personnel in this procedure, inspecting and approving work areas, work methods, protective measures, plant, equipment and power tools.

Name ---------- Position ---------- Signature ----------

Name ---------- Position ---------- Signature ----------

Activities included in this EWMS

▪ Service and public utilities adjustments	▪ Boundary fencing
▪ Archaeological and cultural salvage	▪ Reinstatement of existing access tracks
▪ Establishment of ancillary sites and laydown areas	▪ Environmental monitoring of groundwater and surface water
▪ Building demolition	▪ Surveying and boundary establishment

Part 2

Activity analysis

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
Prior to commencement of works										
1	Confirm required approvals to commence activity	Non-compliance with conditions of approval	C4	L2	H	▪ Ensure EWMS is approved by TfNSW Project Manager and TfNSW Environment Manager. ▪ A Pre-clearing / Ground Disturbance Permit is required for all works to be undertaken prior to the activity commencing. ▪ No additional activities are permitted outside the scope of the Early Works Permit approval, early works CEMP, sub plans and procedures without approval from TfNSW. ▪ All personnel performing this activity must be toolboxed in this EWMS and sign on.	C4	L4	M	All personnel
2	Identify boundaries, limit of works, sensitive areas and no-go zones	▪ Work occurring outside of approved areas or limit of works ▪ Impact / disturbance to areas of State and Federally listed EEC, threatened flora or threatened or endangered habitat ▪ Impact / disturbance to sites of heritage significance	C4	L2	H	▪ Identify boundaries and limits of work by reviewing design drawings and sensitive area plans (SAPs). ▪ Identify ecological and heritage constraints in accessing and within planned areas of works by reviewing sensitive area plans (SAPs). ▪ The Project Ecologist is to undertake a site assessment and provide advice prior to the sign off of all Early Works Permits where minor clearing of native vegetation is required. ▪ Project Ecologist to complete pre-clearing survey checklist. Pre-clearing survey report to be submitted to TfNSW prior to works commencing on site. ▪ Environmental No-Go Zone delineation to be installed prior to works commencing to adequately delineate to site personnel undertaking the activity the No-Go Zones (EEC, threatened flora / fauna, heritage PADs, heritage items, etc), site boundary and clearing limits.	C4	L4	M	All personnel

Part 2

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
						▪ All personnel on site are to be familiar with the Unexpected Finds Procedure for heritage items, and threatened flora and fauna. ▪ If an unexpected find occurs, all works in the vicinity must cease and exclusion fencing installed (if the item requires protection). Site personnel are to notify the site supervisor and environmental officer. Works must not resume until clearance is given by TfNSW.				
3	Develop an Erosion and Sediment Control Plan where activities have the potential to impact sediment loss and/or erosion	▪ Works commencing without controls in place leading to impacts to waterways and movement of sediment	C5	L3	M	▪ An approved Erosion and Sediment Control plan (ESCP) to be developed by personnel with demonstrated experience and in accordance with the Blue Book recommendations. The ESCP will be updated progressively as works change and reviewed post rainfall for adequacy.	C5	L4	M	Activity Supervisor Subcontractor
	During works									
5	Boundary and work limits identification	▪ Work occurring outside of approved areas or limit of works	C3	L2	H	▪ Identify boundaries and limits of work by reviewing design drawings and sensitive area plans (SAPs). ▪ Ensure limits are clearly marked with pegs and flagging. ▪ Reinstate immediately any pegs that fall over or are removed during the works. ▪ Boundary and work limits to be regularly inspected and repairs to be made as required	C3	L4	M	Activity Supervisor Subcontractor
4	Implement erosion and sediment controls	▪ Incorrect use or insufficient controls in place leading to impacts to waterways and movement of sediment	C4	L2	H	▪ Works are to be programmed to reduce the area of disturbed ground which is exposed to erosion at any one time. ▪ Erosion and sedimentation controls are to be implemented prior to any earthworks. ▪ Erosion and sedimentation controls are to be inspected and maintained regularly and following rainfall.	C4	L4	M	Activity Supervisor Subcontractor

Part 2

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
						▪ Access tracks to be appropriately managed to avoid erosion of wheel ruts. ▪ Check weather forecast daily, if heavy rain forecast (greater than 40mm with greater than 50% chance) do not commence works. If incidental rainfall occurs, ensure there is geofabric or similar on hand to stabilise disturbed areas and prevent erosion adjacent to waterways. ▪ No stockpiling is to occur unless approved by TfNSW. All stockpiling must occur within an approved area. If stockpiling is permitted, appropriate controls must be installed to prevent sediment impacts. ▪ No stockpiling is to occur within 50 meters of a waterway.				
6	Clearing of vegetation	▪ Impact / disturbance to areas of State and Federally listed EEC, threatened flora or threatened or endangered habitat ▪ Unauthorised clearing or clearing outside the approved project boundary ▪ Spread of noxious or significant environmental weeds in cleared material and mulch material	C4	L2	H	▪ The works areas would be positioned, so that access can be obtained and the works undertaken without clearing native vegetation. ▪ Where works must be conducted within Threatened Ecological Community (TEC) areas, an ecologist would be present on-site to delineate the works area and prevent impact to TECs. The ecologist must be present on site during all clearing activities (unless advised by TfNSW). Details of the ecologist will be made available at the time of the induction. ▪ Trimming of vegetation shall be limited in degree so that the survival of the plant shall not be threatened by the trimming undertaken. Trimming would also be limited to removing less than 10% of each individual plant. ▪ All access would be via existing roads and/or clearly delineated tracks.	C4	L4	M	All personnel

Part 2

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
						▪ If existing access is not suitable, temporary access tracks may be constructed without clearing native vegetation. ▪ No equipment storage or stockpiling is to occur within drip lines of trees. ▪ All personnel working on the site are to be trained in their responsibilities under the National Parks and Wildlife Act 1974 and the Biodiversity Conservation Act 2016. ▪ Declared noxious weeds are to be managed according to requirements under the Biosecurity Act 2015 and Guide 6 (Weed Management) of the RTA Biodiversity Guidelines 2011.				
7	Works on Cultural Heritage PADs or near identified finds	▪ Works occurring before clearing and salvage has been undertaken ▪ Works occurring before TfNSW approval provided ▪ Impact to significant	C4	L2	H	▪ All personnel on site are to be familiar with the Unexpected Finds Procedure for heritage items as contained in Appendix A3 of the CEMP. ▪ Prior to works, review sensitive area plans (SAPs) and identify Cultural Heritage constraints. ▪ No works are to occur within PADS or sites unless approval has been given by TfNSW. ▪ Environmental No-Go Zone delineation to be installed prior to works where applicable.	C4	L4	M	All personnel
8	Undertaking works in current or former banana plantations	▪ Movement of soil/water potentially containing Panama Disease	C4	L2	H	▪ Where work has been carried out on current or former banana plantations, site vehicles and personnel are to be decontaminated in accordance with TfNSW Panama Disease Procedure as contained in Appendix A3 of the CEMP. ▪ All personnel on site are to be familiar with and undertake activities in accordance with the requirements of the *Panama Disease Procedure Rev. 9* (TfNSW, 2020).	C4	L4	M	All personnel

Part 2

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
9	Noise generation	▪ Impacts to sensitive receivers due to noise and vibration	C6	L2	M	▪ All sensitive receivers potentially affected by noise issues to be consulted/notified of the scope and duration of the proposed works and potential impacts. Where impacts are expected, site specific controls to be implemented prior to commencement of the activity. ▪ All reasonable and feasible noise mitigation measures to be implemented to reduce noise. ▪ Site access points and vehicle movements to be routed as far from sensitive receivers as practical. ▪ Orientate plant known to emit noise away from noise sensitive areas. ▪ Select the quietest plant reasonably available for the activity. ▪ Where machines are fitted with engine covers, these are kept closed whenever the machine is in use. ▪ Plant and machinery not permitted to work past the approved working hours. ▪ In the event of a complaint about excessive noise, Site Manager is to attempt to resolve the issue by adjustment to equipment/works. Project Manager to be advised following resolution.	C6	L4	L	All personnel
10	Mulching and stockpiling	▪ Tannins entering waterways	C4	L2	H	▪ Mulched vegetation will be reused on site as mulch bund sediment controls. It will not been placed in any drainage lines on site. ▪ Any mulch stockpiles are to have a bund upslope to prevent catchment runoff moving through the stockpile which may leach tannins downslope. ▪ No mulch to be stockpiled within 50m of any waterway.	C4	L4	M	Activity Supervisor Subcontractor

Part 2

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
11	Acid sulfate soil excavation	▪ Exposure of acid sulfate soil	C4	L2	H	▪ Where possible, avoid excavation into areas of acid sulphate soils (ASS) and or potential acid sulfate soils (PASS). Refer to Sensitive Area Plans (SAPs) for potential locations. A copy of the SAPs must be kept readily available at the work area. ▪ If ASS or PASS is encountered, contact the TfNSW environment officer and manage in accordance with the Guidelines for the Management of Acid Sulfate Materials (RTA 2005). ▪ Soils will be returned to the position in the soil profile from which they were taken, where possible. ▪ Soils that cannot be replaced into holes will be neutralised and transported to a licensed waste disposal facility. ▪ Adequate supply of agricultural lime to be on hand in ASS/PASS areas to treat soil as required.	C4	L4	M	Activity Supervisor Subcontractor
12	Waste generation	▪ Incorrect disposal of waste material causing contamination to land/water	C6	L2	M	▪ Apply waste minimisation hierarchy principles when disposing of waste including avoid, reduce, re-use, recycle and dispose. ▪ Promote waste segregation and separation to facilitate reuse and recycling where practical. ▪ All potentially contaminated waste material and soil require assessment and disposal in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (OEH 2009), the Protection of the Environment Operations Act 1997 and the Contaminated Land Management Act 1997. This assessment would be undertaken by an appropriately qualified professional. ▪ All concrete is to be washed out at approved concrete washout locations.	C6	L4	L	All personnel

Part 2

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
						▪ Waste is not to be burnt on site. ▪ Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.				
13	Generation of dust/emissions	▪ Air quality impacts to adjacent residents or sensitive areas	C5	L3	M	▪ Machinery or plant will not be left running idle for extended periods of time ▪ Vehicles transporting waste or other materials that may produce odours or dust are to be covered during transportation ▪ Measures must be implemented to minimise dust, soil or mud from being deposited on public roads. Stabilised access points will be installed (where required). In the event of any spillage or mud tracking, the affected area will be cleaned up immediately ▪ Unsealed access roads are to be maintained with water carts to reduce excessive dust generation	C5	L4	L	All personnel

Part 2

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
14	Working in or around waterways	▪ Spills into waterways	C5	L3	M	▪ Equipment/machinery will have double-sheathed hydraulic lines and where possible, use biodegradable hydraulic oils (ie. Panolin) ▪ Spill kits, including hydrocarbon booms will be available in the immediate work area. ▪ All field crews must be familiar with the contents of the spill kit and confident in their use. ▪ All contaminated spill material is to be disposed of through appropriate methods (ie. Hydrocarbons bin / licenced waste facility) ▪ All spills must be reported to the site environmental officer ▪ No fuels, oils or other dangerous goods are to be stored on site without the approval of TfNSW. ▪ Refuelling of plant and equipment is to occur with the use of spill traps and be located a minimum of 50 meters from major drainage lines or waterways.	C5	L4	L	All personnel
15	Working in bushland	Fire, including bush fire	C2	L4	H	▪ Park vehicles on cleared ground. Do not park vehicles in long grass, as hot exhausts cause fires. ▪ Be aware of wind direction if bushfires are within 30km, ▪ If fire breaks out, contain if safe to do so, otherwise evacuate immediately and call ‘000’ for fire brigade. ▪ No ‘hot works’ (grinding/activity that causes spark) are to occur if the Fire Danger Rating is higher than Low.	C2	L5	M	All personnel

Part 2

#	Activity	Potential hazards	Consequence?	Likelihood?	Risk ranking	Controls	Consequence?	Likelihood?	Risk ranking	Who must implement controls
16	Working on floodplain / flood-prone area	▪ Unintended contamination of waterways (sediment, machinery, site materials, oils)	C3	L3	H	▪ Monitor creek/river levels throughout works. Be mindful of upstream rainfall. ▪ If waters are rising and flooding is predicted, remove all possible infrastructure from flood risk areas (if safe to do so), ensure remaining structures will not obstruct or trap flood waters on site ▪ Waterway crossings must be able to be removed during periods of high flow, or be constructed in accordance with the Blue Book, with a stabilised spillway/clean rock surface.	C3	L4	M	All personnel

Risk assessment reckoner – environment

VH = Very High, H = High, M = Medium, L = Low			Likelihood					
	Type	**Environment**	**L1** Frequent	**L2** Likely	**L3** Possible	**L4** Unlikely	**L5** Rare	**L6** Improbable
Consequence	**C1** Catastrophic	Irreversible large-scale environmental impact with loss of valued ecosystems or virtual eradication of endangered species. Permanent damage or destruction to highly valued cultural heritage items. Regulatory intervention, fines and prosecutions potentially curtailing/limiting RMS's operations and activities. Total remediation costs > $10M.	VH	VH	VH	H	H	M
	C2 Severe	Very long term (>5years but <10years) environmental impairment in offsite and/or valued ecosystems. Very significant impact on highly valued species or habitats. Irreparable damage to highly valued items of cultural significance. Extensive remediation required, with regulatory action and overview. A Tier 1 breach up to $5M in damages. Total remediation costs >$2M and <$10M.	VH	VH	H	H	M	M
	C3 Major	Offsite long term (>24mths but <5years) damage to items of significant cultural heritage. A Tier 2 breach of legislation and could result in some form of regulatory action or penalties (up to $1M for Corporates). Partial impairment of the ecosystem medium to long term. Total remediation costs < $2M.	VH	H	H	M	M	L
	C4 Serious	Short to mid-term (<24mths) impact on biological or physical environment and/or ecosystem. Well contained but requiring serious (<$200K) remedial action and notification to regulator. Midterm damage to items of cultural significance	H	H	M	M	L	L
	C5 Moderate	Event contained within site. Short term damage (<12mths) to area of limited significance. Short term effects but not affecting the ecosystem. Short term, repairable social impact on local population. Total remediation costs < $4K.	H	M	M	L	L	L
	C6 Minor	Low level impacts on biological and/or physical environment within an area of low significance. Highly localised event rectified by available on site resources. Isolated, easily contained, no lasting effects. Low level repairable damage to common place structures. Total remediation costs < $2K.	M	M	L	L	L	L

Part 3

Consultation for development and review of EWMS for site-specific hazards and controls

EWMS developed on	20/08/2020	by *	

* Include a list of names (below) or refer to the Toolbox or EnSite event where the list of names is recorded.

Name	Signature	Name	Signature	Name	Signature

Review

Review date	Stage or Toolbox record No.	New critical steps	New hazards identified	Adjustment to controls	Works Supervisor signature

Part 4

EWMS attendance sheet — record of activity induction

Induction number	Name (please print clearly)	Signature	Company	Date

ENVIRONMENTAL WORK METHOD STATEMENT

Clearing , Grubbing and Mulching (Inc. Tannin Management)

Project: Coffs Harbour Bypass

Rev: B
Date: 6 May, 2021
EWMS No. 02

1. Summary/Description of Activity

Clear, grub, and mulch involves the felling of trees, grubbing (digging out) roots and stumps and mulching of organic matter from topsoil. Clearing and grubbing will occur throughout the CHB alignment in all areas containing woody vegetation. Clearing in previously cleared habitat will be limited to mulching of saplings, topsoil stripping partly decomposed and fresh mulch mixed with topsoil. Equipment involved in the activity will include: harvester, excavator, bulldozer and tub grinder. All equipment will be appropriately sized to efficiently handle the vegetation present.

The purpose of clear, grub, and mulch is to prepare topsoil for stripping prior to bulk earthworks.

The typical sequence of the works is as follows:

- Obtain required approvals to commence activity.
- Undertake required community/landowner consultation.
- Provide training to personnel and Contractors involved (Ongoing).
- Delineate sensitive areas.
- Undertake pre-clearing assessments.
- Undertake phase 1 clear, grub and mulch to install erosion and sediment controls.

2. Objective of this EWMS

The clear, grub and mulch EWMS is intended as a supplement to the Early Works Construction Environmental Management Plan. The objectives of this EWMS include:

Detail the exact work method, processes and activities required to undertake clear, grub, and mulch.

Provide specific control measures to manage the potential environmental risk associated with clear, grub, and mulch and satisfy the requirements of project specifications and approval conditions.

Communicate the process, environmental risks and appropriate mitigation measures to all personnel undertaking the activity and to ensure all mitigation measures are implemented for the relevant duration of the works.

3. Area/Location of Activity/Site:

Work will occur within the Coffs Harbour Bypass project alignment. All work will occur within the clearing limits set out and agreed by TfNSW and the Project Ecologist.

4. Timing of works

The expected commencement of the clearing and grubbing works is June 2021.

5. Approvals Required

Release of Hold Point G40 2.4 by TFNSW. Having considered the submitted documents (i.e. management plans, method statements, pre-clearing assessment report), inspected the clearing limits, exclusion fencing, marked trees (including habitat trees, frog habitat, threatened flora) and verified vegetation community boundaries.

Release of Hold Point G38 3.1.1 by TFNSW. Having considered the submitted Erosion and Sediment Control Plan.

Early Works Permit - completed by the team proposing to undertake the works. The Environmental Manager (EM) will assess and sign-off on the Early Works Permit (including all required vehicle movement and access plans) prior to works commencing.

6. Consultation Requirements:

The TFNSW) Community Manager must be informed of all properties proposed to be accessed, and out of hours work to ensure that required consultation is undertaken and any required property access is approved. Consultation will occur in accordance with the Community Consultation Strategy.

7. Incident Response

In the event of an incident, such as unauthorised access to, or impacts to, threatened vegetation/sensitive areas, the Foreman will give directions to stop work and will contact the Environmental Manager immediately. The Environmental Manager or their delegate will then implement the Environmental Incident Classification and Reporting Procedure. TfNSW will notify relevant agencies (e.g. DP&I, EPA, OEH etc) in the event of a reportable incident, as required.

8. Monitoring and Compliance

The Environment Officer will undertake weekly environmental inspections of the works. Non-conformances with the EWMS and environmental risks identified during the inspection that cannot be addressed at the time will be prioritised in an environmental action list issued to the supervisor. The Environment Officer will monitor timely close out of actions through ongoing inspections.

In addition, 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. Where non-conformances are found, the EWMS will be reviewed to ensure that any improvements are incorporated as required.

9. Typical Construction Sequence

i. Planning (ERSED, ecological requirements etc.).
ii. Clearing of approved areas (inc. temp ERSED controls).
iii. Grub and mulch timber
iv. Transport mulch to stockpile, where it cannot be placed as a primary erosion and sediment control measure.
v. Stick rake topsoil (

10. Related documents:

- Early Works CEMP.
- Early Works Permit, including vehicle access.
- Panama Disease Management Procedure.
- Sensitive Area Plans
- Toolbox signoff sheet.
- Plant wash-down and weed inspection checklist.
- Roads and Maritime Services Environmental Direction: Management of Tannins from Vegetation Mulch.
- Erosion and Sediment Control Plan (ESCP).
- . G40 2.4 and G38 3.1.1 Hold Point Releases
- Pre-clearing assessment report.
- Threatened species management plan
- TFNSW Biodiversity Guidelines: protecting and managing biodiversity on TFNSW projects.

11. Change Management

Should a change to the construction methodology, design, disturbance footprint or otherwise be required; Construction, Supervisory and Environmental personnel from TFNSW must be consulted prior to works occurring

Risk Analysis Risk Classification = Consequence x Likelihood		LIKELIHOOD				
		5 Very high* Almost certain to happen i.e. could occur daily or more frequently	4 High* Strong anecdotal evidence that it is likely to occur in the identified circumstances without any controls in place;	3 Medium* May occur in the identified circumstances without any controls in place	2 Low* Could occur at some time in the identified circumstances without any controls in place but not expected;	1 Very low* Highly unlikely to occur in the identified circumstances without any controls in place
CONSEQUENCE	5 Very large Major irreversible environmental harm on-site and/or off-site damage.	25 Critical	20 Significant	15 Significant	10 Moderate	5 Minor
	4 Large Major on-site and/or off-site impacts with clean up or remedy requires significant effort.	20 Significant	16 Significant	12 Moderate	8 Minor	4 Minor
	3 Medium Moderate on-site and/or off-site impacts (but no significant irreversible damage) with clean up or remedy work incurring a moderate level of effort	15 Significant	12 Moderate	9 Moderate	6 Minor	3 Minor
	2 Small Treatable on-site impact with clean up or remedy work incurring a small level of effort.	10 Moderate	8 Minor	6 Minor	4 Minor	2 Negligible
	1 Very small Reversible and insignificant environmental impact.	5 Minor	4 Minor	3 Minor	2 Negligible	1 Negligible

#	Sequence of work activities (How will the work be done)	Potential Hazards (What harm can occur?)	Risk	Safeguards/controls (How can the risk be minimised?)	Residual Risk	Responsibility (Who will direct works to ensure compliance?)
Prior to commencement of works						
1	Ensure all necessary approvals are obtained including G40 Hold Points	Approval or contract conditions not met	Critical	Early Works Permit to be completed and reviewed by Project Manager and Environmental Manager. Mulch stockpile locations are to be identified and approved as per the ERSED Plan prior to commencing clearing.	Minor	Environmental Manager / Senior Project Engineer
2	Community Consultation	Community unaware of clearing	Moderate	Ensure Community Manager is aware and up to date with clear, grub, and mulch operations and that required notifications have been undertaken to affected residents as per requirements of the CHB Community Consultation Strategy.	Minor	Community Manager / Senior Project Engineer
3	Plan erosion and sediment controls (ESC)	Unnecessary environmental risks / water pollution.	Significant	Develop Erosion and Sediment Control Plan (ESCP) for all areas, ensuring both temporary and long-term control measures are considered and implemented in accordance with the required G38 Specification and industry standards (Blue Book, DEC2008 Guidance etc) prior to vegetation clearing. ESCP to be approved by the Project Environmental Manager. TfNSW to sign-off G38 Hold Point on ESCP. Grubbing to not proceed in riparian areas with 10m of waterways until just before work commences in that area (i.e. 48 hours prior to work commencing) in accordance with the requirements of G40 Specification. Cut stump process to be implemented where appropriate to reduce erosion potential.	Moderate	Environmental Manager / Senior Project Engineer
4	Staff and sub-Contractor training	Breach of Management Plans and Approvals	Significant	Ensure all personnel undergo the Project induction. Ensure that site-specific induction clearly presents the environmental controls and restrictions that all personnel must follow. Ensure all personnel are familiar with who the Environmental Team are , and how to make contact regarding access in to areas, commencement of works and the mitigation measures required to be installed before works commence. Daily toolbox talks that may include: • Requirements of G40 Specification with regard to two-phase clearing (non-habitat vegetation removal, then 48hrs after habitat tree removal); Encourage reporting of identified fauna, and provide workforce with Project Ecologist contact details. • Encouraging LoC delineation checks amongst the entire workforce • Daily clearing prestart briefing sign-off.	Minor	Environmental Manager / Safety Manager / Senior Project Engineer
5	Mapping of vegetation communities	Uncertainty regarding the type and area of vegetation communities to be cleared.	Moderate	A plan (SAPs) showing the location and extent of each vegetation community within the LoC boundary, works and temporary works and working area is to be prepared for each clearing location. Sensitive Area Plans are to be updated to reflect any amendments to native vegetation clearing areas.	Negligible	Environmental Manager / Survey Manager
6	Monthly reports on clearing progress	Inaccurate records of area cleared	Significant	Monthly reports (as per G36) provided to Principal detailing: • Revised forecasts of vegetation clearing. • Areas cleared to date for each vegetation community.	Minor	Environmental Manager
Install Clearing Limits, exclusion zones and inspect						
7	Install and verify clearing limit (exclusion) fencing	Unapproved work outside of clearing limit	Significant	Clearing limit (exclusion) fence to be install at least 5 working days prior to commencement of clearing. All clearing limit (exclusion) boundary to be clearly pegged by survey. Each peg consecutively numbered. LoC boundary to be delineated using star pickets (at approx. 25m intervals and each change of direction, or closer depending on terrain and environmental sensitivity) and highly visible flagging (i.e. orange bunting. Install “Environmental Protection Area” signage in prominent positions at 200m intervals along each section of LoC fence. Brief LoC set-out team on protocols as per this EWMS. Fence to be picked up and verified by survey team independent of survey set-out team and Hold Points as per G71 Specification to be adhered to.	Moderate	Foreman / Survey Manager and Environmental Manager/ Ecologist
		Obstacle in the way of fence line	Moderate	Survey to mark immediately either side of obstacle. Fence line to be agreed during pre-clearing joint inspection with TfNSW, Project Ecologist and Project Environmental Manager/Representative.	Minor	Survey Team / Foreman

#	Sequence of work activities (How will the work be done)	Potential Hazards (What harm can occur?)	Risk	Safeguards/controls (How can the risk be minimised?)	Residual Risk	Responsibility (Who will direct works to ensure compliance?)
8	Pre-clearing assessment	Requirements of Threatened Species Management Plan and are not met.	Significant	Appropriately experienced Ecologists and arborists will undertake pre-clearing assessment. The assessment will address: habitat tree mark-up, identification of trees with native beehives, targeted survey for additional threatened species and EEC, marking of threatened flora within 5m of the LoC boundary, identify and mark unsound trees, identify and locate grass trees, verify vegetation community boundaries, survey and map noxious and horticultural weeds as per Specification G40. European beehives are to be identified and subsequently destroyed during the two stage clearing procedure as detailed in G36 Prepare a Pre-clearing Assessment Report for review by TfNSW as/ when requested, and implement necessary actions e.g. weed control. Pre-clearing assessment report will include results and relevant actions for weed surveys and management, threatened flora survey, habitat tree identification, threatened species habitat assessment, vegetation community boundary verification, area of TEC/EEC clearing, unsound tree assessment, habitat tree mark-up.	Minor	Environmental Manager / Ecologist
9	Identify, survey and mark habitat trees	Impact on Fauna due to habitat tree not marked	Significant	Ecologist to survey and mark habitat trees. Habitat Trees are to clearly marked with an “x” in red spray paint and red and white flagging. Trees containing native bee-hives will be marked prior to clearing.	Minor	Ecologist / Environmental Manager / Engineer
10	Update SAP’s	Inaccurate SAP’s	Moderate	Update SAP’s with data collected during the pre-clearing assessment.	Negligible	Survey manager / Environmental manager.
11	Delineation of sensitive areas	Damage to sensitive areas or work outside of project boundary	Significant	Heritage areas, threatened flora and EEC within 5m of the LoC boundary clearly marked during pre-clearing assessment. Also refer to marking of clearing limits as per point 9 above. Implementation of Survey Protocol that specifies measures to ensure survey set out and corresponding pegging and flagging is accurate (for example sequential numbering of pegs).	Moderate	Ecologist / Foreman / Engineer/ Environmental Manager
12.	Control of Noxious weeds	Noxious weeds not controlled in accordance with legislation and management plan	Moderate	Ensure weed management and actions identified in Pre-clearing Assessment Report are implemented by treating any required high priority noxious weeds prior to clearing operations.	Minor	Environmental Manager / Senior Project Engineer
13	Management of Panama Disease	Potential spread of pathogen off site	Moderate	Ensure all activities are undertaken in accordance with the Panama Disease Management Protocol, records of actions undertaken are be provided to TfNSW on request	Minor	All site team members and Contractors
14	Ecologist / TfNSW pre-clearing joint inspection (G40 walk).	Catchment cleared prior to approvals and control measures in place.	Moderate	5 days prior to clearing the Project Engineer, Surveyor, Project Ecologist and TfNSW Environmental staff will undertake a joint pre-clearing inspection/walk. The inspection will involve a foot-based traverse of the clearing limits. Complete verification check lists for each lot (including project Engineer, and project Ecologist sign off)	Minor	Engineer / Environmental Manager / Foreman
Ecologist pre clearing checks						
15	Delineation of daily clearing areas	Ecologists inspect the wrong area	Significant	Each afternoon, the areas requiring ecological inspection for the following days clearing area will be delineated, by the Project Environmental Manager or delegated representative in consultation with the Project Ecologist, using highly visible red and white tape. The area identified for clearing shall be an accurate and reasonable prediction of the area that can be feasibly cleared in a day. The daily clearing extent will be progressively modified in response to clearing extents achieved, based on density of vegetation, quality of fauna habitat and other influencing features.	Minor	Environmental Manager / Ecologist
16	Undertake pre-clearing spotlight survey	Threatened species not detected	Critical	A team of two Ecologists will undertake a spotlight survey of each daily clearing area within the two hours prior to first light. This will maximize the opportunity to observe and capture nocturnal fauna.	Moderate	Approved Ecologists
17	Undertake pre-clearing diurnal survey	Other threatened species not detected	Critical	The daily clearing extent will be clearly delineated with red and white tape installed across (perpendicular to) the alignment previous evening. (Refer to point 15). Clearing shall not commence until the clearing area has been adequately by the Ecologist. Pre-clearing surveys to be in accordance with TFNSW Biodiversity Guidelines and G40.	Minor	Approved Ecologist
18	Clearing commences prior to pre-clearing inspection	Threatened species killed or injured.	Critical	Notify the Ecologist and TfNSW of any sick / Injured Fauna immediately. In the case of a breach of clearing procedures: An investigation will be undertaken to determine if/why clearing protocols were breached. The Environmental Incident Classification and Reporting Guideline will be implemented. Disciplinary action may follow dependent on the severity of the breach and outcome of injury/ damage to protected species/ habitat. Clearing Contractor required to be re-inducted and re-briefed on clearing protocols.	Moderate	Environmental Manager / Ecologist

#	Sequence of work activities (How will the work be done)	Potential Hazards (What harm can occur?)	Risk	Safeguards/controls (How can the risk be minimised?)	Residual Risk	Responsibility (Who will direct works to ensure compliance?)
19	Koala identified in clearing area	Threatened species killed or injured	Significant	Where a Koala is identified within the demarcated clearing area the following will occur: • Suspension of clearing works must occur for a minimum of 48 hrs, • A clearing/work exclusion zone will be established around the koala. The exclusion zone will be determined by the Ecologist in consultation with Principal and will be delineated using orange bunting. • All clearing of koala habitat trees shall be undertaken in the presence of a koala spotter (Project Ecologist). • No machinery will enter the exclusion zone. • Any koala found will be given 48hrs to move out of the construction site on its own volition. • Clearing will continue outside the designated exclusion zone if deemed to not cause any potential harm to the koala in question at the discretion of the Ecologist and supported by TFNSW. • Each tree identified by the Ecologist as being a risk to a Koala if felled, will not be felled, damaged or interfered with until the Koala has moved from the clearing site.	Minor	Environmental Manager / Approved Ecologist
20	Clearing planning – process / toolbox / Prestart / maps	Clearing permit contains inaccurate material	Significant	Daily pre-start briefings are to be signed off by Environmental Manager / Representative / Ecologist / Clearing Contractor prior to commencement of clearing. During the daily Prestart/ toolbox meeting the clearing Contractor, site environmental representative must walk the entire boundary of that days clearing area. Pre- start briefing content is to be cross-referenced with on-ground boundaries & observations and must include a clear description of daily clearing extent and a map that clearly shows the daily clearing extent. Checklist is discussed with Ecologist, Clearing Contractor, Environmental Manager/Representative before clearing commences and shall be retained on file.	Minor	Environmental Manager
21	Capture and release of fauna	Inappropriate methods used resulting in breach of conditions and harm to fauna	Significant	Capture and handling of all fauna will be undertaken by experienced and TfNSW approved Ecologist.	Minor	Ecologist
Carrying out clear, grub, mulch works						
22	Mobilise plant to site & move plant around site	Spread of weeds and Panama Disease	Significant	Contractors to comply with the requirements of the Panama Disease Control Procedure and confirming all machinery, equipment or apparatus is clean and visually free for mud, seeds, organic material, oil and grease before mobilisation to site. Plant arriving onsite to be inspected by an Environmental Representative/Foreman.	Minor	Contractor / Foreman / Environmental Coordinator
23	Provide training to all personnel and Contractors involved in works	Non-compliance with EWMS / licensing requirements.	Significant	Ensure all personnel undertaking the works have signed onto this EWMS, ESCP and understand the risk and mitigation controls required and that no clearing can commence unless there is a signed and dated Clearing Permit. Ensure all personnel working on-site have been inducted and understand environmental risks.	Moderate	Engineer / Foreman
24	Install ESC prior to clearing	Uncontrolled discharge offsite	Significant	Install any temporary erosion and sediment controls required for clearing as per approved ESCP. Ongoing audits and inspections of control measures and their effectiveness to be undertaken. Continual improvement / upgrades to control measures will be undertaken where identified.	Minor	Foreman / Environmental Coordinator
25	Review upcoming weather forecast	Working in low lying areas during rain event	Significant	Continually review upcoming weather forecast. If there is a probability of 90% or greater that >10mm of rainfall is likely, rescheduling of clearing works be considered. Consider weather conditions prior to commencing work. The commencement of the works will be determined by the Superintendent/Foreman and Environmental Manager by the monitoring of online radar services. Prepare the work area for upcoming major rain event (audit controls, status of work area etc).	Minor	Contractor / Foreman / Engineer
26	Clear non-habitat trees (Stage 1 clearing)	Injury to fauna and/or damage to flora	Significant	Ensure above pre-clearing searches have been completed (see points 15-20). No felling of habitat trees during this phase, ensure habitat trees have been marked and are clearly visible in the field. Project Ecologist to be present at all times during clearing works to relocate affected fauna to nominated release points. If fauna is present during clearing the Ecologist will advise clearers to stop work until the individual has left the work area or it has been relocated. Fauna will be given the opportunity to leave the area unassisted. If not feasible, Ecologist will relocate fauna. Injured or killed fauna will be recorded in the clearing register. Injured fauna would be initially assessed by Ecologist before being transported to an appropriate vet or licensed wildlife carer for treatment. Treatment will be as per the NSW Code of Practice for Injured, Sick and Orphaned Protected Fauna (EPA 2011). All felling to be done within clearing limit (exclusion) fence. Mulch vegetation as soon as possible to minimise likelihood that fauna will occupy stockpiles.	Minor	Project Ecologist / Contractor / Engineer

#	Sequence of work activities (How will the work be done)	Potential Hazards (What harm can occur?)	Risk	Safeguards/controls (How can the risk be minimised?)	Residual Risk	Responsibility (Who will direct works to ensure compliance?)
		Clearing adjacent to threatened flora and EEC	Moderate	Mark all threatened flora within 5m of the LoC boundary during the pre-clearing assessment. Plot threatened flora locations on SAP's and ensure that the relevant section of SAP is included in the daily clearing permit. Ensure all personnel are aware that threatened flora occurs nearby and how it is delineated during the daily pre-clearing walk/toolbox. Ensure LoC boundary is in place and clearing does not occur outside that boundary.	Minor	Contractor / Foreman / Engineer
		Unexpected threatened fauna or flora find	Moderate	Stop all work in the vicinity of the find. Immediately notify the Project Environmental Manager. Implement the TfNSW Unexpected Finds Procedure.	Negligible	Foreman / Environmental Manager
		Damage to vegetation outside of clearing limits	Moderate	Trees shall be felled inwards from the LoC boundary only. Ensure there is a clear area to fell the vegetation towards. Logs that cross the LoC will be cut flush with the boundary.	Minor	Contractor / Foreman
		Minimise impact to Threatened Frog Habitat	Moderate	Where possible, review opportunities to hand clear or use other low impact methods near any potential threatened frog habitat and leave grass cover, roots, etc.	Negligible	Contractor / Foreman / Engineer
		Erosion and sedimentation within waterways	Moderate	TfNSW to sign-off G38 Hold Point on ESCP. Grubbing to not proceed in riparian areas with 10m of waterways until just before work commences in that area (i.e. 48 hours prior to work commencing) in accordance with the requirements of G40 Specification. Cut stump process to be implemented where appropriate to reduce erosion potential. At bridge locations, trees within 5m of the bank of any stream or other waterway are to be cleanly cut off between 300-600mm above the adjacent ground level so that stable vegetation is retained on the banks. No vehicles to access through waterways unless on established temporary crossings. Should disturbed areas remain, erosion and sediment controls will be installed to ensure degradation of the drainage line is minimised. PESCP will be updated as required.	Negligible	Contractor / Foreman
		Uncontrolled discharge of water (turbid / tannins) from site	Significant	Temporary ESC measures (e.g. timber, mulch windrows, topsoil windrows, lined drains / waterways etc) to be installed progressively each day and prior to the completion of each days work. Cleared vegetation to be moved out of low-lying areas prior to rain. Unprotected mulch sediment controls should not be placed in concentrated flow lines where there is a risk that mulch may be washed away Any temporary sediment traps constructed from mulch must have a stable outlet point to minimise the potential for mulch to wash away during high rainfall events, and the possibility of control measure failure. Management of tannins shall be in accordance with RMS Environmental Direction: Management of Tannins from Vegetation Mulch. Minimise impacts to access tracks and maintain as required.	Minor	Contractor / Engineer
		Excessive dust	Significant	Trucks entering and exiting the project to be covered (excluding log trucks). Use water carts to dampen haul roads, stockpiles and cleared catchments, as required. Entry and exit via approved and stable access points.	Minor	Foreman
		Onsite refueling	Significant	Spill kit to be onsite at strategic locations and in locations where refueling is undertaken. Project Environmental Manager to be notified if a spill occurs. All refueling to be done 50m away from water course, creek, drainage line or boggy area and were possible offsite and to use a drip tray at all times. Plant and equipment to be regularly serviced and maintained.	Minor	Contractor / Engineer / Plant Manager
		Discovery of contaminated land/material (including asbestos)	Moderate	Stop work and report find to supervisor and environmental manager. Implement Unexpected Contaminated Land and Asbestos Find Procedure.	Minor	All
		Noise impact on community and/or stakeholders	Critical	Ensure works are undertaken between 7am and 6pm Monday to Friday and 8am to 1pm Saturday only. No work is to occur on Sunday or on public holidays. Ensure plant/equipment to be fitted with appropriate silencers and maintained. Minimise radio noise, yelling, and rowdy behaviour when near potentially affected receivers. Plan works to minimise reversing beepers. Do not undertake excessive reversing. All community complaints are to be referred to Community Team, recorded and actioned.	Minor	Community Relations Manager / Foreman / Engineer

#	Sequence of work activities (How will the work be done)	Potential Hazards (What harm can occur?)	Risk	Safeguards/controls (How can the risk be minimised?)	Residual Risk	Responsibility (Who will direct works to ensure compliance?)
	Stage 1 clearing does not isolate habitat trees	Equipment unsuitable for removing habitat trees	Significant	Equipment must be appropriately sized to handle the majority of trees on-site and the operator skilled in removing habitat trees.	Minor	Project engineer / Environmental Manager
Carrying out Stage 2 clearing						
27	Clear habitat trees (Stage 2)	Fauna in habitat trees during felling	Significant	Ensure above pre-clearing searches have been completed. Habitat trees to be felled a minimum of two nights after stage 1 clearing. Project Ecologist to supervise felling of all habitat trees and discuss method of felling with operator. Habitat trees must be felled using appropriately sized machinery and experienced staff. Habitat trees must not be cut and pushed or felled using hand-held chainsaws. Where possible, retain and relocate hollow bearing tree sections in areas adjacent to the construction footprint or reuse in fauna underpass structures. Where possible, clear hollow bearing trees during the cooler parts of the day. Ecologist to provide advice during clearing of such trees. Ecologists to check hollows once tree has been placed safely on the ground and relocate fauna in accordance with the Fauna Handling and Rescue Procedure. Habitat tree inspections undertaken in accordance with TFNSW Biodiversity Guidelines.	Minor	Ecologist / Environmental Manager / Contractor / Foreman
		Inappropriate housing or release of fauna	Significant	Ensure that fauna are housed in accordance with ethics approval. Fauna will be released into adjoining areas of suitable habitat at an appropriate time of day that is consistent with the behaviour of the animal. Release locations will be recorded in the Post Clearing Reports.	Minor	Ecologist
		Fauna move into stockpiles	Significant	Stockpiled vegetation must be immediately crushed so there are no protruding branches. Ideally material shall be mulched in the same shift that it was felled. If stockpiled material remains undisturbed for more than 12 hours an Ecologist must inspect it before it is sheared or mulched.	Minor	Ecologist / Environmental Manager / Contractor / Foreman
28	Data collection	Data not collected in accordance with G36 and G40/reporting deficient	Significant	Prepare specific data sheets for clearing procedures, including: spotlighting, diurnal pre-clearing surveys (incl daily clearing observations), habitat tree removal, structures removal, register of fauna killed during clearing, weather conditions, and road kill. Each datasheet will record date, start and end time, and personnel. Pre-clearing and spotlighting datasheet will include: species and number, sex & age of individuals sighted, captured, or injured; location recorded and location released (GPS). Habitat tree & structure removal datasheet will include: species and number, sex & age of individuals sighted, captured, or injured, tree species present, size, height and depth of hollows, tree/feature location (GPS), and release location (GPS) and method (i.e. onto trunk, into logs). Mortality register data sheet will include: species (age & sex), location (GPS) and likely cause. Data collected on threatened frogs would include: species, age class, sex, breeding condition and snout-vent length. Larger individuals would be PIT tagged. All records to be stored for review by TFNSW at any stage.	Minor	Project Ecologist / Environmental Manager
29	Maintain clearing limit / exclusion fence	Clearing limit (exclusion) fence damaged during clearing	Significant	Maintain exclusion fence until the completion date of works. Immediately repair any fencing and/or signs damaged during clearing, as required. Make all staff and subcontractors involved in construction activities aware of the clearing limits as part of the project induction and aware that they are prohibited to encroach on areas beyond the boundaries of the identified clearing limits. Encourage staff to report degraded or damaged sections of LoC fence immediately. Ensure that the LoC boundary fence is inspected during the daily pre-clearing walk/toolbox. During the daily pre-clearing walk ensure that any damaged sections of the LoC fence are immediately repaired/replaced. Clearing will not commence until LoC boundary has been repaired.	Minor	Foreman / Environmental officer/ Coordinators

#	Sequence of work activities (How will the work be done)	Potential Hazards (What harm can occur?)	Risk	Safeguards/controls (How can the risk be minimised?)	Residual Risk	Responsibility (Who will direct works to ensure compliance?)
30	Final stick rake	Spread of weeds	Significant	Brush/wash off excessive soil and plant material from boots/clothing/plant/equipment prior to moving from high-risk weed infested areas to minimise potential for the spread of seeds. Carry out wash down procedure for plant before leaving weed area and at least 50m from waterway.	Minor	Contractor / Foreman / Engineer
31	Moving between locations	Damage to flora, fauna, threatened species, EEC, spread of Panama Disease	Moderate	Clearing works are not to commence without the approval of the Project Engineer and Environmental Manager. Early Works Permits will cover a specified area (chainage and location detailed on permit) where works can be carried out. Panama Disease controls to be implemented as pre procedure.	Negligible	Contractor / Foreman / Engineer
32	Tidy-up / Demobilise from site	Area left untidy	Minor	Classify all waste using the 'Waste Classification Guidelines 2008'. Ensure all materials are reused or recycled where possible. If reuse or recycling is not possible, then materials shall be disposed off-site, in accordance with above guidelines. Conduct regular inspections of the works areas by Foreman, Engineer, Environment Team.	Negligible	Foreman / All
		Re-growth of noxious weeds	Significant	Following clearing, grubbing or mulch, assess the edges of the work area for any noxious weed regrowth and treat as required in accordance with the Pre-clearing Survey Report.	Minor	Foreman /All
Reporting						
33	Post clearing report	Report not prepared	Moderate	At the completion of clearing activities, a post-clearing report must be provided to the Principal. This report must be provided within 28 days from the completion of substantial clearing as determined by the Principal as required by G36 and G40 Specifications. The post clearing report prepared, in consultation with the Project Ecologist, will include: • an assessment of habitat trees and the handling of the fauna affected by the clearing activities undertaken in accordance with the requirements of this clause; • the clearing and structures removal operations, including procedures, dates, times, weather, areas and information on the fauna specialist(s) present during the clearing and structures removal operations; • any live animals that were sighted, captured, released, injured or shocked including the location of fauna within clearing footprint (recorded with GPS) and release locations; • dead animals that were found as a result of clearing and structures removal operations and fauna rescue; • trees being used for breeding or roosting by fauna, including their species, locations, sizes, heights and depths of hollows in trees; • structures (e.g. bridges, culverts) being used for breeding or roosting by fauna, including their species, locations, sizes, gap heights and depths; • a register of hollow-bearing trees, and comparison of this data to the Nest Box Plan. • photo images of rescued fauna.	Negligible	Project Ecologist / Environmental Manager

WMS Approval

Revision Number	Approved By	Name	Signature	Date
A	Environmental Manager			

Toolbox (Attendees to sign attendance record below)

- Pre-clearing assessments completed prior to commencement of clearing. Pre-clearing assessment will include: habitat tree survey, native bee survey, noxious weed survey, grass tree survey, EEC verification, threatened flora survey, unsound tree assessment.
- Early Works Permit to be completed and approved by Project Manager / Environmental Manager / Survey manager / Project Ecologist for each clearing area.
- Daily clearing Pre-start checklist must have plan of daily work area attached and be signed by Ecologist / Environmental Managers representative / Clearing Contractor prior to clearing commencing.
- Each day prior to clearing the clearing Contractor, Environmental Managers representative and Principals representative must walk the entire days clearing boundary.
- Clearing limits, exclusion zones, heritage areas, threatened flora within 5m of boundary, and EEC vegetation adjoining boundary are to be marked/flagged prior to commencement of works to prevent impacts. Star pickets, highly visible bunting (fluorescent orange) and signage will delineate these areas. Ensure regular maintenance of flagging.
- Ensure all activities are undertaken in accordance with the Panama Disease Management Protocol, records of actions undertaken are be provided to TfNSW on request
- Check attached Sensitive Area Plans (SAPs) to identify sensitive area locations. Relevant section of SAP attached to each daily clearing checklist.
- No clearing permitted outside clearing limits. Ensure everyone is aware of the clearing limits and sensitive areas prior to commencing each day.
- Immediately report sections of damaged or broken LoC fence to Foreman, or environmental staff, or survey manager.
- Immediately report all koala and other fauna sightings to Foreman or Environmental Manager or Ecologist.
- Ensure pre-clearing inspections completed in timeframes nominated above in points 15-20.
- Ensure appropriately experienced Ecologist / wildlife carer is present during all clearing. Ecologist required to inspect habitat trees immediately after being felled. Appropriately sized machinery and experienced operators must be used to assist in the lowering of habitat trees.
- If fauna is present during felling, stop all work in the vicinity and notify Ecologist. Ecologist will capture and relocate fauna, as required.
- Trees shall be felled towards the project corridor and not away from. Ensure there is a clear area to fall vegetation into.
- If an injured animal is found, advise the Ecologist immediately.
- Consider weather conditions prior to commencing work. Continually review upcoming weather forecast. If there is a probability of 90% or greater that >10mm of rainfall is likely, rescheduling of clearing works be considered
- Ensure ESCPs are developed and implemented prior to commencing works.
- Minimise ground disturbance and install ERSED controls at the end of each day as required. Ensure ongoing maintenance and improvements as required.
- At bridge locations, trees within 5m of the bank of any stream or other waterway are to be cleanly cut-off between 300-600mm above the adjacent ground level so that stable vegetation is retained on the banks. Also where possible, hand clear/minimise disturbance to threatened frog habitats.
- No vehicle access into or through waterways unless on designated crossings (excluding dry waterways).
  - 7:00am to 6:00pm Monday to Friday;
  - 8:00am to 1:00pm Saturday; and
  - At no time on Sundays and Public Holidays.
- Works outside the hours specified above will not be conducted unless approval in writing has been granted by the Environmental Manager.
- The following noise mitigation measures should be implemented at all times:
  - Turn vehicle / plant and equipment off when not in use;
  - Minimise radio noise, yelling, no rowdy behaviour etc when near potentially affected receivers;
  - Plan works and design vehicle accesses to minimise reversing beepers;
  - Ensure plant/equipment is maintained in an efficient condition; and
- Prevent pollution of waterways due to spills/leaks. All refuelling to be done 50m away from water course, creek, drainage line or boggy area and where possible offsite. Report and clean up all spills. Spills must be reported to the Environmental Manager.
- Ensure spill kits are available during works and at refuelling locations.
- Report any complaints from neighbours to Community Team.
- Separate cleared vegetation containing noxious weeds and treat in accordance with pre-clearing assessment report.
- Plant arriving onsite to be inspected by an Environmental Coordinator/Foreman to be clean. Inspect and clean machinery after working in areas containing high priority noxious weeds to prevent further spread.
- All washdowns must be done away from waterways and ensure no risk of pollution waterways.

  Upstream and downstream controls are required around mulch stockpiles. Leachate from stockpiles to be collected in a bund/sump and used for dust suppression away from waterways.
- Mulch stockpiles to be lower than 2.0 m in height to prevent risk of combustion
- Trucks with loads to use dust covers on all local roads/highways (excluding log trucks).
- Ensure fire extinguishers are available at all times during tub grinding.
- In the event that human remains, unexpected heritage items are discovered or threatened flora/fauna observed or contaminated material such as asbestos, stop work immediately and contact the Environmental Manager.
- Minimise waste where possible. Ensure all materials are taken off site and reused, recycled. If reuse or recycling is not possible, then materials shall be disposed off-site. Ensure waste materials are collected and disposed of at licensed landfills or in project rubbish bins.
- In the event of an unexpected find, or an environmental incident the Environmental Incident Classification and Reporting Procedure is to be implemented.
- Contact project Environmental Team for advice on environmental matters.

Toolbox Attendance Record

We the undersigned, confirm that the Clearing, Grubbing and Mulching EWMS requirements that have been explained and its contents are clearly understood.

Name	Position	Employer	Signature	Date

ATTACHMENT A – Sensitive Area Plans

Appendix A2 Unexpected Heritage Finds Procedure

Transport Roads & Maritime Services

Unexpected Heritage Items

Heritage Procedure 02

November 2015

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Contents

Appendices

Please note

This procedure applies to all development and activities concerning roads, road infrastructure and road related assets undertaken by Roads and Maritime.

For advice on how to manage unexpected heritage items as a result of activities related to maritime infrastructure projects, please contact the Senior Environmental Specialist (Heritage).

1 Purpose

This procedure has been developed to provide a consistent method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during Roads and Maritime activities. This procedure includes Roads and Maritime's heritage notification obligations under the *Heritage Act 1977* (NSW), *National Parks and Wildlife Act 1974* (NSW), A*boriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner's Act 2009* (NSW).

This document provides relevant background information in Section 3, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices A-H.

2 Scope

This procedure assumes that an appropriate level of Aboriginal and non-Aboriginal heritage assessment has been completed before work commences on site. In some cases, such as exempt development, detailed heritage assessment may not be required.

Despite appropriate and adequate investigation, unexpected heritage items may still be discovered during maintenance and construction works. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator, if required.

This procedure applies to <u>all</u> Road and Maritime construction and maintenance activities

This procedure **applies to**:

- The discovery of any unexpected heritage item (usually during construction), where Roads and Maritime does not have approval to disturb the item or where safeguards for managing the disturbance (apart from this procedure) are not contained in the environmental impact assessment.
- All Roads and Maritime projects that are approved or determined under Part 3A (including Transitional Part 3A Projects), Part 4, Part 5 or Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), or any development that is exempt under the Act.

This procedure must be followed by Roads and Maritime staff, alliance partners (including local council staff working under Road Maintenance Council Contracts, [RMCC]), developers under works authorisation deeds or any person undertaking Part 5 assessment for Roads and Maritime.

This procedure **does not** apply to:

- The legal discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with OEH's *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (2010); an Aboriginal Heritage Impact Permit (AHIP) issued under the *National Parks and Wildlife Act 1974*; or an approval issued under the *Heritage Act 1977*[1].
- The legal discovery and disturbance of heritage items as a result of investigations (or other activities) that are required to be carried out for the purpose of complying with any environmental assessment requirements under Part 3A (including Transitional Part 3A Projects) or Part 5.1 of the EP&A Act.
- The legal discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP[2]; an approval issued under the *Heritage Act 1977*; the Minister for Planning's conditions of project approval; or safeguards (apart from

[1] RMS' heritage obligations are incorporated into the conditions of heritage approvals.

[2] RMS *Procedure for Aboriginal cultural heritage consultation and investigation* (2011) recommends that Part 4 and Part 5 projects that are likely to impact Aboriginal objects during construction seek a whole-of-project AHIP. This type of AHIP generally allows a project to impact known and potential Aboriginal objects within the entire project area, without the need to stop works. It should be noted that an AHIP may exclude impact to certain objects and areas, such as burials or ceremonial sites. In such cases, the project must follow this procedure.

this procedure) that are contained in the relevant environmental impact assessment.

All construction environment management plans (CEMPs) must make reference to and/or include this procedure (often included as a heritage sub-plan). Where approved CEMPs exist they must be followed in the first instance. Where there is a difference between approved CEMPs and this procedure, the approved CEMP must be followed. Where an approved CEMP does not provide sufficient detail on particular issues, this procedure should be used as additional guidance. When in doubt always seek environment and legal advice on varying approved CEMPs.

3 Types of unexpected heritage items and their legal protection

The roles of project, field and environmental staff are critical to the early identification and protection of unexpected heritage items. **Appendix A** illustrates the wide range of heritage discoveries found on Roads and Maritime projects and provides a useful photographic guide. Subsequent confirmation of heritage discoveries must then be identified and assessed by technical specialists (usually an archaeologist).

An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Roads and Maritime does not have approval to disturb[3] or does not have a safeguard in place (apart from this procedure) to manage the disturbance.

These discoveries are categorised as either:

(a) Aboriginal objects

(b) Historic (non-Aboriginal) heritage items

(c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below.

3.1 Aboriginal objects

The *National Park and Wildlife Act 1974* protects *Aboriginal objects* which are defined as:

"*any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains*"[4].

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

IMPORTANT!

All Aboriginal objects, regardless of significance, are protected under law.

If any impact is expected to an Aboriginal object, an Aboriginal Heritage Impact Permit (AHIP) is usually required from the Office of Environment and Heritage (OEH)[5]. Also, when a person becomes aware of an Aboriginal object they must notify

[3] Disturbance is considered to be any physical interference with the item that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).
[4] Section 5(1) *National Park and Wildlife Act 1974*.
[5] Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.

the Director-General of OEH about its location[6]. Assistance on how to do this is provided in Section 7 (Step 5).

3.2 Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- Archaeological 'relics'
- Other historic items (i.e. works, structures, buildings or movable objects).

3.2.1 Archaeological relics

The *Heritage Act 1977* protects *relics* which are defined as:

"*any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance*"[7].

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

IMPORTANT!

All relics are subject to statutory controls and protections.

If a relic is likely to be disturbed, a heritage approval is usually required from the NSW Heritage Council[8]. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location[9]. Advice on how to do this is provided in Section 7 (Step 5).

3.2.2 Other historic items

Some historic heritage items are not considered to be 'relics'; but are instead referred to as works, buildings, structures or movable objects. Examples of these items that Roads and Maritime may encounter include culverts, historic road formations, historic pavements, buried roads, retaining walls, tramlines, cisterns, fences, sheds, buildings and conduits. Although an approval under the *Heritage Act 1977* (NSW) may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. An archaeological excavation permit under Section 140 of the Heritage Act is required to do this. In contrast, 'other historic items' either exist above the ground's surface (e.g. a shed), or they are designed to operate and exist beneath the ground's surface (e.g. a culvert).

[6] This is required under s89(A) of the *National Park and Wildlife Act 1974* (NSW) and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

[7] Section 4(1) *Heritage Act 1977*.

[8] Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.

[9] This is required under s146 of the *Heritage Act 1977* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

Despite this difference, it should be remembered that relics can often be associated with 'other heritage items', such as archaeological deposits within cisterns and underfloor deposits under buildings.

3.3 Human skeletal remains

Human skeletal remains can be classed as:

- Reportable deaths
- Aboriginal objects
- Relics

Where it is suspected that less than 100 years has elapsed since death, human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act* 2009 (NSW). Under s 35(2) of the Act, a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old[10] regardless of ancestry. Public health controls may also apply.

Where remains are suspected of being more than 100 years old, they are considered to be either Aboriginal objects or non-Aboriginal relics depending on the ancestry of the individual. Aboriginal human remains are protected under the *National Parks and Wildlife Act 1974*, while non-Aboriginal remains are protected under the *Heritage Act 1977*.

The approval and notification requirements of these Acts are described above in sections 3.1 and 3.2. Additionally, the discovery of Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under s 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

IMPORTANT!

All human skeletal remains are subject to statutory controls and protections.

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

.

Guidance on what to do when suspected human remains are found is in **Appendix E**.

[10] Under s 19 of the *Coroners Act 2009*, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

4 Responsibilities

The following roles and responsibilities are relevant to this procedure:

Role	Definition/responsibility
Aboriginal Cultural Heritage Advisor (ACHA)	Provides Aboriginal cultural heritage advice to project teams. Acts as Aboriginal community liaison for projects on cultural heritage matters. Engages and consults with the Aboriginal community as per the Roads and Maritime *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.
Aboriginal Sites Officer (ASO)	Is an appropriately trained and skilled Aboriginal person whose role is to identify and assess Aboriginal objects and cultural values. For details on engaging Aboriginal Sites Officers, refer to Roads and Maritime *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.
Archaeologist (A)	Professional consultant, contracted on a case-by-case basis to provide heritage and archaeological advice and technical services (such as reports, heritage approval documentation etc). Major projects with complex heritage issues often have an on call Project archaeologist.
Project Manager (PM)	Ensures all aspects of this procedure are implemented. The PM can delegate specific tasks to a construction environment manager, Roads and Maritime site representatives or regional environment staff, where appropriate.
Regional Environment Staff (RES)	Provides advice on this procedure to project teams. Ensuring this procedure is implemented consistently by supporting the PM. Supporting project teams during the uncovering of unexpected finds. Reviewing archaeological management plans and liaising with heritage staff and archaeological consultants as needed.
Registered Aboriginal Parties (RAPs)	RAPs are Aboriginal people who have registered with Roads and Maritime to be consulted about a proposed Roads and Maritime project or activity in accordance with OEH's Aboriginal cultural heritage consultation requirements for proponents (2010).
Senior Environmental Specialist (Heritage) (SES(H))	Provides technical assistance on this procedure and archaeological technical matters, as required. Reviewing the archaeological management plans and facilitating heritage approval applications, where required. Assists with regulator engagement, where required.
Team Leader - Regional Maintenance Delivery (TL-RMD)	Ensures Regional Maintenance Delivery staff stop work in the vicinity of an unexpected heritage item. Completes Unexpected Heritage Item Recording Form 418 and notifies WS-RMD.
Technical Specialist	Professional consultant contracted to provide specific technical advice that relates to the specific type of unexpected heritage find (eg a forensic or physical anthropologist who can identify and analyse human skeletal

	remains).
Works Supervisor - Regional Maintenance Delivery (WS-RMD)	Ensures Regional Maintenance Delivery staff are aware of this procedure. Supports the Team Leader - Regional Maintenance Delivery during the implementation of this procedure and ensures reporting of unexpected heritage items through environment management systems.

5 Acronyms

The following acronyms are relevant to this procedure:

Acronym	Meaning
A	Archaeologist
ACHA	Aboriginal Cultural Heritage Advisor
AHIP	Aboriginal Heritage Impact Permit
ASO	Aboriginal Site Officer
CEMP	Construction Environment Management Plan
OEH	Office of Environment and Heritage.
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation
PM	Project Manager
RAP	Registered Aboriginal Parties
RES	Regional Environmental Staff
SES(H)	Senior Environmental Specialist (Heritage)
TL-RMD	Team Leader – Regional Maintenance Division
RMD	Regional Maintenance Delivery
RMS	Roads and Maritime
WS-RMD	Works Supervisor - Regional Maintenance Division

6 Overview of the Procedure

On discovering something that could be an unexpected heritage item ('the item'), the following procedure must be followed. There are eight steps in the procedure. These steps are summarised in **Figure 1** below and explained in detail in Section 7.

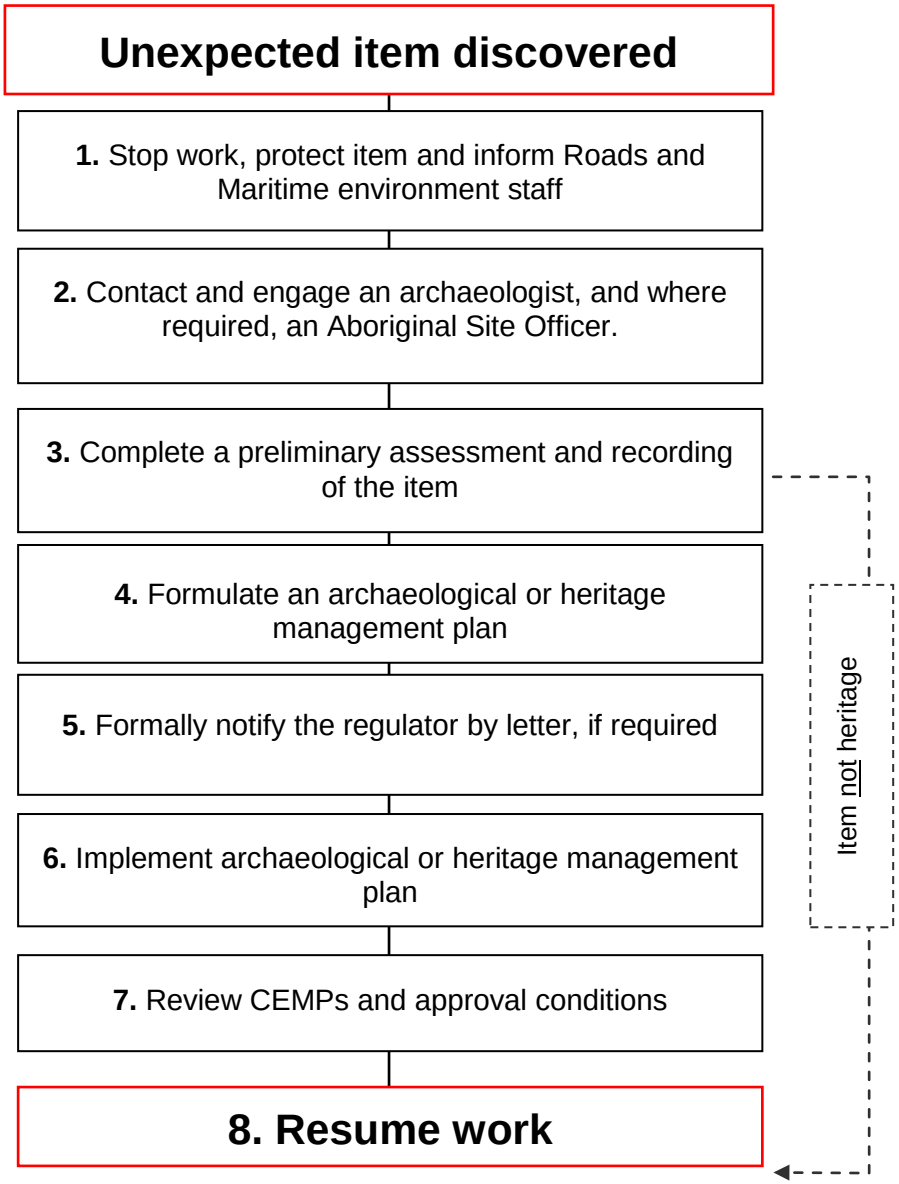


Figure 1: Overview of steps to be undertaken on the discovery of an unexpected heritage item.

IMPORTANT!

RMS may have approval or specific safeguards in place (apart from this procedure) to impact on certain heritage items during construction. If you discover a heritage item and you are unsure whether an approval or safeguard is in place, STOP works and follow this procedure.

7 Unexpected heritage items procedure

Table 1: Specific tasks to be implemented following the discovery of an unexpected heritage item.

Aboriginal Cultural Heritage Advisor (ACHA); Aboriginal Sites Officer (ASO); Archaeologist (A); Project Manager (PM); Regional Environment Staff (RES); Registered Aboriginal Parties (RAPs); Senior Environmental Specialist (Heritage) (SES(H)); Team leader – Roads and Maintenance Division (TL - RMD); Works supervisor – Roads and Maintenance Division (WS - RMD).

Step	Task	Responsibility	Guidance & Tools
1	**Stop work, protect item and inform Roads and Maritime environment staff**		
1.1	Stop all work in the immediate area of the item and notify the Project Manager or Team Leader-RMD. (For maintenance activities, the Team Leader is to also notify the Works Supervisor-RMD)	All	**Appendix A** (Identifying Unexpected Heritage items)
1.2	Establish a 'no-go zone' around the item. Use high visibility fencing, where practical.	PM or TL-RMD	
1.3	Inform all site personnel about the no-go zone. No further interference, including works, ground disturbance, touching or moving the item must occur within the no-go zone.	PM or TL-RMD	
1.4	Inspect, document and photograph the item using 'Unexpected Heritage Item Recording Form 418'.	PM or TL-RMD	**Appendix B** (Unexpected Heritage Item Recording Form 418) **Appendix C** (Photographing Unexpected Heritage items)

Step	Task	Responsibility	Guidance & Tools
1.5	Is the item likely to be bone? If **yes**, follow the steps in Appendix E – 'Uncovering bones'. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site. If **no**, proceed to next step.	PM or WS-RMD	**Appendix E** (Uncovering Bones)
1.6	Is the item likely to be: a) A relic? (A relic is evidence of past human activity which has local or state heritage significance. It may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse) and/or b) An Aboriginal object? (An Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree). If **yes**, proceed directly to Step 1.8 If **no**, proceed to next step.	PM or WS-RMD	**Appendix A** (Identifying heritage items)
1.7	Is the item likely to be a "work", building or standing structure? (This may include tram tracks, kerbing, historic road pavement, fences, sheds or building foundations). If **yes**, can works avoid further disturbance to the item? (E.g. if historic road base/tram tracks have been exposed, can they be left in place?) If **yes**, works may proceed without further disturbance to the item. Complete Step 1.8 within 24 hours. If works cannot avoid further disturbance to the item, works must not recommence at this time. Complete the remaining steps in this procedure.	PM or WS-RMD	**Appendix A** (Identifying heritage items)

Step	Task	Responsibility	Guidance & Tools
1.8	Inform relevant Roads and Maritime Regional Environmental Staff of item by providing them with the completed 'Form 418'.	PM or WS-RMD (RES)	**Appendix D** (Key Environmental Contacts)
1.9	Regional Environmental Staff to advise Project Manager or Works Supervisor whether RMS has an approval or safeguard in place (apart from this procedure) to impact on the 'item'. (An approval may include an approval under the *Heritage Act*, the *National Parks and Wildlife Act* or the *Planning and Assessment Act*). Does RMS have an approval, permit or appropriate safeguard in place to impact on the item? If **yes**, work may recommence in accordance with the approval, permit or safeguard. There is no further requirement to follow this procedure. If **no**, continue to next step.		
1.10	Liaise with Traffic Management Centre where the delay is likely to affect traffic flow.	PM or WS-RMD	
1.11	Report the item as a 'Reportable Event' in accordance with the Roads and Maritime *Environmental Incident Classification and Reporting Procedure*. Implement any additional reporting requirements related to the project's approval and CEMP, where relevant.	PM or WS-RMD	RMS Environmental Incident Classification and Reporting Procedure
2	**Contact and engage an archaeologist and, where required, an Aboriginal site officer**		
2.1	Contact the Project (on-call) Archaeologist to discuss the location and extent of the item and to arrange a site inspection, if required. The project CEMP may contain contact details of the Project Archaeologist. OR	PM or WS-RMD (A; RES; SES(H))	Also see **Appendix D** (Key Environmental Contacts)

Step	Task	Responsibility	Guidance & Tools
	Where there is no project archaeologist engaged for the works, engage a suitably qualified and experienced archaeological consultant to assess the find. A list of heritage consultants is available on the RMS contractor panels on the Buyways homepage. Regional environment staff and Roads and Maritime heritage staff can also advise on appropriate consultants.		Buyways
2.2	Where the item is likely to be an Aboriginal object, speak with your Aboriginal Cultural Heritage Advisor to arrange for an Aboriginal Sites Officer to assess the find. Generally, an Aboriginal Sites Officer would be from the relevant local Aboriginal land council. If an alternative contact person (ie a RAP) has been nominated as a result of previous consultation, then that person is to be contacted.	PM or WS-RMD (ACHA; ASO)	
2.3	If requested, provide photographs of the item taken at Step 1.4 to the archaeologist, and Aboriginal Sites Officer if relevant.	PM or WS-RMD (RES)	**Appendix C** (Photographing Unexpected Heritage items)
3	**Preliminary assessment and recording of the find**		
3.1	In a minority of cases, the archaeologist (and Aboriginal Sites Officer, if relevant) may determine from the photographs that no site inspection is required because no archaeological constraint exists for the project (*eg the item is not a 'relic', a 'heritage item' or an 'Aboriginal object*'). Any such advice should be provided in writing (eg via email) and confirmed by the Project Manager or Works Supervisor - RMD.	A/PM/ASO/ WS-RMD	Proceed to Step 8
3.2	Arrange site access for the archaeologist (and Aboriginal Sites Officer, if relevant) to inspect the item as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment.	PM or WS-RMD	
3.3	Subject to the archaeologist's assessment (and the Aboriginal Sites Officer's assessment, if relevant), work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which has not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to	A/PM/ASO/ WS-RMD	

Step	Task	Responsibility	Guidance & Tools
	reflect the extent of the newly assessed protective area. No works are to take place within this area once established.		
3.4	The archaeologist (and Aboriginal Sites Officer, if relevant) may provide advice after the site inspection and preliminary assessment that no archaeological constraint exists for the project (*eg the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'*). Any such advice should be provided in writing (eg via email) and confirmed by the Project Manager or Works Supervisor - RMD.	A/PM/ASO/ WS-RMD	Proceed to Step 8
3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). Regional environment staff and/or Roads and Maritime heritage staff can provide contacts for such specialist consultants.	RES/SES(H)	**Appendix D** (Key Environmental Contacts)
3.6	Where the item has been identified as a 'relic', 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item.	A	
3.7	The regulator can be notified informally by telephone at this stage by the archaeologist, Project Manager (or delegate) or Works Supervisor - RMD. Any verbal conversations with regulators must be noted on the project file for future reference.	PM/A/WS-RMD	
4	**Prepare an archaeological or heritage management plan**		
4.1	The archaeologist must prepare an archaeological or heritage management plan (with input from the Aboriginal Sites Officer, where relevant) shortly after the site inspection. This plan is a brief overview of the following: (a) description of the feature, (b) historic context, if data is easily accessible, (c) likely significance, (d) heritage approval and regulatory notification requirements, (e) heritage reporting requirements, (f) stakeholder consultation requirements, (g) relevance to other project approvals and management plans etc.	A/ASO	**Appendix F** (Archaeological/ Heritage Advice Checklist)
4.2	In preparing the plan, the archaeologist with the assistance of regional environment staff must review the CEMP, any heritage sub-plans, any conditions of heritage approvals, conditions of project approval (and or Minister's Conditions of Approval) and heritage assessment documentation (eg Aboriginal Cultural Heritage Assessment Report). This will outline if the unexpected item is consistent with previous heritage/project approval(s)	A/RES/PM	**Appendix F** (Archaeological/ Heritage Advice Checklist)

Step	Task	Responsibility	Guidance & Tools
	and/or previously agreed management strategies. The Project Manager and regional environment staff must provide all relevant documents to the archaeologist to assist with this. Discussions should occur with design engineers to consider if re-design options exist and are appropriate.		
4.3	The archaeologist must submit this plan as a letter, brief report or email to the Project Manager outlining all relevant archaeological or heritage issues. This plan should be submitted to the Project Manager as soon as practicable. Given that the archaeological management plan is an overview of all the necessary requirements (and the urgency of the situation), it should take no longer than two working days to submit to the Project Manager.	A	
4.4	The Project Manager or Works Supervisor must review the archaeological or heritage management plan to ensure all requirements can reasonably be implemented. Seek additional advice from regional environment staff and Roads and Maritime heritage staff, if required.	PM/RES/SES(H)/ WS-RMD	
5	**Notify the regulator, if required.**		
5.1	Review the archaeological or heritage management plan to confirm if regulator notification is required. Is notification required? If **no**, proceed directly to Step 6 If **yes**, proceed to next step.	PM/RES/SES(H)/ WS-RMD	
5.2	If notification is required, complete the template notification letter.	PM or WS-RMD	**Appendix G** (Template Notification Letter)
5.3	Forward the draft notification letter, archaeological or heritage management plan and the site recording form to regional environment staff and Senior Environmental Specialist (Heritage) for review, and consider any suggested amendments.	PM/RES/SES(H)/ WS-RMD	

Step	Task	Responsibility	Guidance & Tools
5.4	Forward the signed notification letter to the relevant regulator (ie notification of relics must be given to the Heritage Division, Office of Environment and Heritage (OEH), while notification for Aboriginal objects must be given to the relevant Aboriginal section of OEH). Informal notification (via a phone call or email) to the regulator prior to sending the letter is appropriate. The archaeological management plan and the completed site recording form must be submitted with the notification letter. For Part 3A and Part 5.1 projects, the Department of Planning and Environment must also be notified.	PM or WS-RMD	**Appendix D** (Key Environmental Contacts)
5.5	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form should be kept on file by the Project Manager or Works Supervisor- RMD and a copy sent to the Senior Environmental Specialist (Heritage).	PM or WS-RMD	
6	**Implement archaeological or heritage management plan**		
6.1	Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with the regulator.	A/PM or WS-RMD (RES)	
6.2	Implement the archaeological or heritage management plan. Where impact is expected, this would include such things as a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with registered Aboriginal parties, obtaining heritage approvals etc, if required.	PM or WS-RMD (RAPs and RES)	PACHCI Stage 3
6.3	Where heritage approval is required contact regional environment staff for further advice and support material. Please note time constraints associated with heritage approval preparation and processing. Project scheduling may need to be revised where extensive delays are expected.	PM/RES/WS-RMD	
6.4	For Part 3A/Part 5.1 projects, assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment. Seek advice from regional environment staff and Environment Branch specialist staff if unsure.	PM/RES	

Step	Task	Responsibility	Guidance & Tools
6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	PM or WS-RMD	
6.6	Where statutory approval (or Part 3A/Part 5.1 project modification) is not required and where recording is recommended by the archaeologist, sufficient time must be allowed for this to occur.	PM or WS-RMD	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material is removed from site, where required. Interested third parties (eg museums or local councils) should be consulted on this issue. Contact regional environment staff and Senior Environmental Specialist (Heritage) for advice on this matter, if required.	PM or WS-RMD	
7	**Review CEMPs and approval conditions**		
7.1	Check whether written notification is required to be sent to the regulator before re-commencing work. Where this is not explicit in heritage approval conditions, expectations should be clarified directly with the regulator.	PM	
7.2	Update the CEMP, site mapping and project delivery program as appropriate with any project changes resulting from final heritage management (eg retention of heritage item, salvage of item). Updated CEMPs must incorporate additional conditions arising from any heritage approvals, and Aboriginal community consultation if relevant. Include any changes to CEMP in site induction material and update site workers during toolbox talks.	PM	
8	**Resume work**		
8.1	Seek written clearance to resume project work from regional environment staff and the archaeologist (and regulator, if required). Clearance would only be given once all archaeological excavation and/or heritage recommendations (where required) are complete. Resumption of project work must be in accordance with the all relevant project/heritage approvals/determinations.	RES/A/PM/WS-RMD	
8.2	If required, ensure archaeological excavation/heritage reporting and other heritage	PM/A/WS-RMD	

Step	Task	Responsibility	Guidance & Tools
	approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.		
8.3	Forward all heritage/archaeological assessments, heritage location data and its ownership status to the Senior Environmental Specialist (Heritage). They will ensure all heritage items in Roads and Maritime ownership and/or control are considered for the Roads and Maritime S170 Heritage and Conservation Register.	PM/SES(H)/ WS-RMD	
8.4	If additional unexpected items are discovered this procedure must begin again from Step 1.	PM/TL-RMD	

8 Seeking advice

Advice on this procedure should be sought from Roads and Maritime regional environment staff in the first instance. Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure. Regional environment staff can assist non-Roads and Maritime project environment managers with enquires concerning this procedure.

IMPORTANT!

Roads and Maritime Services staff and contractors are not to seek advice on this procedure directly from the Office of Environment and Heritage without first seeking advice from regional environment staff and heritage policy staff.

Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from the contracted archaeologist. Technical specialist advice can also be sought from heritage policy staff within Environment Branch to assist with the preliminary archaeological identification and technical reviews of heritage/archaeological reports.

9 Related information

Contact details: Senior Environmental Specialist (Heritage), Environment Branch, 02 8588 5754

Effective date: 01 February 2015

Review date: 01 February 2016

This procedure should be read in conjunction with:

- Roads and Maritimes' *Heritage Guidelines 2015.*
- Roads and Maritime Services *Environmental Incident Classification and Reporting Procedure*
- Roads and Maritime's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*
- RTA *Environmental Impact Assessment Guidelines.*

This procedure replaces:

- Procedure 5.5 ("*unexpected discovery of an archaeological relic or Aboriginal object*") outlined in the RTA's *Heritage Guidelines* 2004.

Other relevant reading material:

- NSW Heritage Office (1998), *Skeletal remains: guidelines for the management of human skeletal remains*.
- Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal remains.*
- Department of Health (April 2008), *Policy Directive: Burials - exhumation of human remains*[11]*.*

[11] http://www.health.nsw.gov.au/policies/pd/2008/pdf/PD2008_022.pdf

Appendix A

Identifying Unexpected Heritage Items

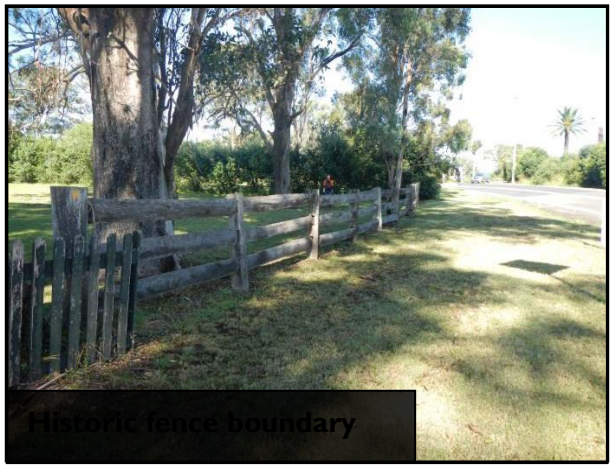
The following images can be used to assist in the preliminary identification of potential unexpected items (both Aboriginal and non-Aboriginal) during construction and maintenance works. Please note this is not a comprehensive typology.

Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area).

Top left hand picture continuing clockwise: Woodstave water pipe with tar and wire sealing (Horsley Drive); Tram tracks (Sydney); Brick lined cistern (Clyde); Retaining wall (Great Western Highway, Leura).

Top left hand picture continuing clockwise: Road pavement (Great Western Highway, Lawson); Sandstone kerbing and guttering (Parramatta Road, Mays Hill); Telford road (sandstone road base, Great Western Highway, Leura); Ceramic conduit and sandstone culvert headwall (Blue Mountains, NSW); Corduroy road (timber road base, Entrance Road, Wamberai).

Top left hand corner continuing clockwise: Alignment Pin (Great Western Highway, Wentworth Falls); Survey tree (MR7, Albury); Survey tree (Kidman Way, Darlington Point, Murrumbidgee); Survey tree (Cobb Highway, Deniliquin); Milestone (Great Western Highway, Kingswood, Penrith); Alignment Stone (near Guntawong Road, Riverstone). Please note survey marks may have additional statutory protection under the *Surveying and Spatial Information Act 2002*.



Top left hand corner continuing clockwise: Remnant bridge piers (Putty Road, Bulga); Wooden boundary fence (Campbelltown Road, Denham Court); Dairy shed (Ballina); Golden Arrow Mine Shaft.

Top left hand corner: Culturally modified stone discovered on Main Road 92, about two kilometres west of Sassafras. The remaining images show a selection of stone

artefacts retrieved from test and salvage archaeological excavations during the Hume Highway Duplication and Bypass projects from 2006-2010.

Appendix B

Unexpected Heritage Item Recording Form 418

Unexpected heritage item recording form

Date:		**Recorded by:** (Include name and position)	
Project name:			
Description of works being undertaken (eg Removal of failed pavement by excavation and pouring concrete slabs in 1m x 1m replacement sections).			
Description of exact location of item (eg Within the road formation on Parramatta Road, east bound lane, at the corner of Johnston Street, Annandale, Sydney).			

Description of item found (What type of item is it likely to be? Tick the relevant boxes).

A. A relic	☐	A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottles, utensils, plates, cups, household items, tools, implements, and similar items.
B. A 'work, building or structure'	☐	A 'work' can generally be defined as a form infrastructure such as tram tracks, a culvert, road base, a bridge pier, kerbing, and similar items.
C. An Aboriginal object	☐	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones.
D. Bone	☐	Bones can either be human or animal remains. **Remember that you must contact the local police immediately by telephone if you are certain that the bone(s) are human remains.**
E. Other	☐	

Provide short description of item (eg Metal tram tracks running parallel to road alignment. Good condition. Tracks set in concrete, approximately 10cms (100 mm) below the current ground surface).	

Sketch
(Provide a sketch of the item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken).

Action taken (Tick either A *or* B)

A. Unexpected item **would not** be further impacted on by works ☐

Describe how works would avoid impact on the item. (eg The tram tracks will be left *in situ*, and recovered with road paving).

B. Unexpected item **would be** further impacted on by works ☐

Describe how works would impact on the item. (eg Milling is required to be continued to 200 mm depth to ensure road pavement requirements are met. Tram tracks will need to be removed).

Project manager / works supervisor signature	

Appendix C

Photographing Unexpected Heritage Items

Photographs of unexpected items in their current context (*in situ*) may assist heritage staff and archaeologists to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin) and a note describing the direction of the photograph.

Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the item. This will add much value to the subsequent detailed photographs also required (Figure 2).

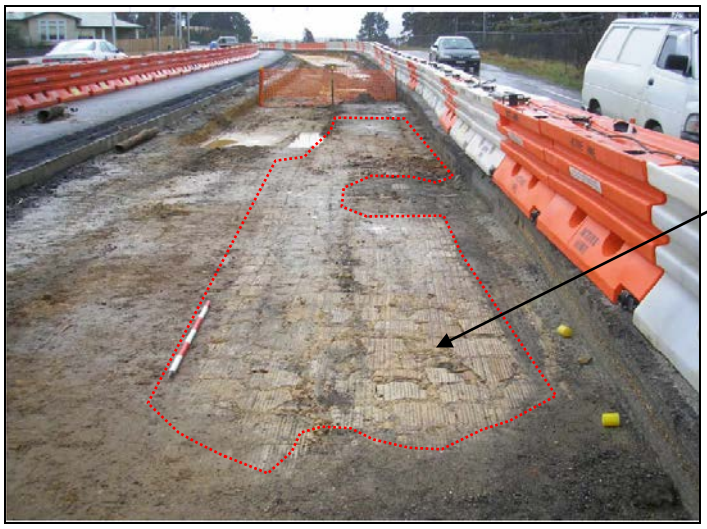


Figure 2: Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008.

Photographing distinguishing features

Where unexpected items have a distinguishing feature, close up detailed photographs must be taken of this, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See Figures 3 and 4 for examples.

Figure 3: Ceramic bottle artefact with stamp.

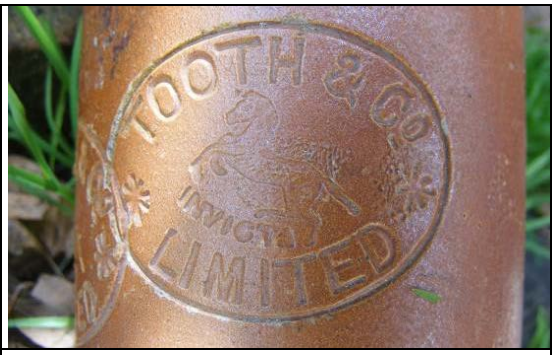


Figure 4: Detail of the stamp allows '*Tooth & Co Limited*' to be made out. This is helpful to a specialist in gauging the artefact's origin, manufacturing date and likely significance.

Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, Roads and Maritime must contact the police immediately (see Appendix F for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. Heritage staff in Environment Branch can confirm if bones are human or non-human if provided with appropriate photographs.

Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed. Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.

Figure 5: Bone concealed by foliage.

Figure 6: Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.

Figure 7: Photograph showing complete bone.

Figure 8: Close up of a long bone's epiphysis.

Appendix C

Key Environmental Contacts

Key environmental contacts

Hunter region	Environmental Manager (Hunter)	4924 0440
	Aboriginal Cultural Heritage Advisor	4924 0383
Northern region	Environment Manager (North)	6640 1072
	Aboriginal Cultural Heritage Advisor	6604 9305
Southern region	Environmental Manager (South)	6492 9515
	Aboriginal Cultural Heritage Advisor	4221 2767
South West region	Environment Manager (South West)	6937 1634
	Aboriginal Cultural Heritage Advisor	6937 1647
Sydney region	Environment Manager (Sydney)	8849 2516
	Aboriginal Cultural Heritage Advisor	8849 2583
Western region	Environment Manager (West)	6861 1628
	Aboriginal Cultural Heritage Advisor	6861 1658
Pacific Highway Office	Environment Manager	6640 1375
Regional Maintenance Delivery	Environment Manager	9598 7721
Environment Branch	Senior Environmental Specialist (Heritage)	8588 5754

Heritage Regulators

Heritage Division Office of Environment and Heritage Locked Bag 5020 Parramatta NSW 2124 Phone: (02) 9873 8500	Department of the Environment (Clth) GPO Box 787 Canberra ACT 2601 Phone: (02) 6274 1111
Office of Environment and Heritage (Sydney Metropolitan) Planning and Aboriginal Heritage Section PO Box 668 Parramatta NSW 2124 Phone: (02) 9995 5000	Office of Environment and Heritage (North Eastern NSW) Planning and Aboriginal Heritage Section Locked Bag 914 Coffs Harbour NSW 2450 Phone: (02) 6651 5946
Office of Environment and Heritage (North Western NSW) Environment and Conservation Programs PO Box 2111 Dubbo NSW 2830 Phone: (02) 6883 5330	Office of Environment and Heritage (Southern NSW) Landscape and Aboriginal Heritage Protection Section PO Box 733 Queanbeyan NSW 2620 Phone: (02) 6229 7188

Project-Specific Contacts

Position	Name	Phone Number
Project Manager		
Site/Alliance Environment Manager		
Regional Environmental Officer		
Aboriginal Cultural Heritage Advisor		
Consultant Archaeologist		
Local Police Station		
OEH: Environment Line		131 555

Appendix E

Uncovering Bones

This appendix provides Project Managers with (1) advice on what to do when bones are discovered; (2) guidance on the notification pathways; and (3) additional considerations and requirements when managing the discovery of human remains.

1. First uncovering bones

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. Therefore they must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist. These specialist consultants can be sought by contacting regional environment staff and/or heritage staff at Environment Branch.

On the very rare occasion where it is *instantly obvious* from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and clothing are present.

Figure 1: Schematic of a complete skeleton that is 'obviously' human[12].

Figure 2: Disarticulated bones that require assessment to determine species.

This preliminary phone call is to let the police know that Roads and Maritime is undertaking a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

[12] After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains*: 17.

Where it is not 'obvious' that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix C. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur. Preliminary telephone or verbal notification by the Project Manager or regional environment staff is considered appropriate. This must be followed up later by Roads and Maritime's formal letter notification as per Appendix G when a management plan has been developed and agreed to by the relevant parties.

2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

A. Human bones are from a recently deceased person (*less than* 100 years old).

> **☑ Action**
> A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the *Coroners Act 2009* (NSW). It should be assumed the police will then take command of the site until otherwise directed.

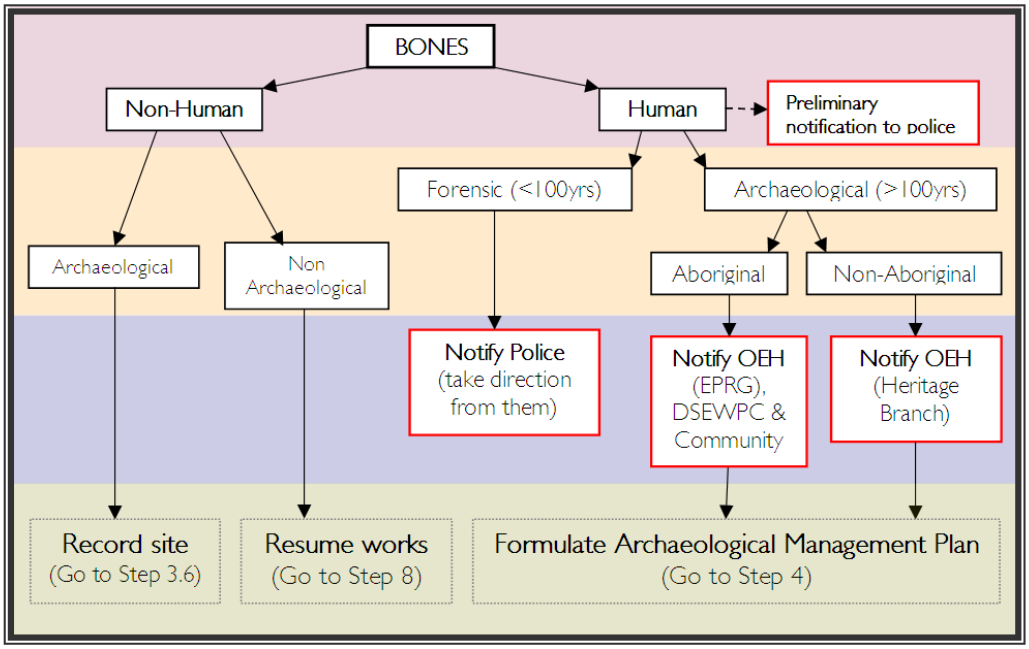
B. Human bones are archaeological in nature (*more than* 100 years old) and are likely to be *Aboriginal* remains.

> **☑ Action**
> The OEH and the RMS Aboriginal Cultural Heritage Advisor (ACHA) must be notified immediately. The ACHA must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site. Relevant stakeholders are determined by the RTA's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.

C. Human bones are archaeological in nature (*more than* 100 years old) and likely to be *non-Aboriginal* remains.

> **☑ Action**
> The OEH (Heritage Branch, Conservation Team) must be notified immediately.

The simple diagram below summarises the notification pathways on finding bones.



After the appropriate verbal notifications (as described in B and C), the Project Manager must proceed through the *Unexpected Heritage Items Procedure* to formulate an archaeological management plan (Step 4). Note no archaeological management plan is required for forensic cases (A), as all future management is a police matter. Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to recording the find as per Step 3.6.

3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Roads and Maritime's ACHA can provide advice on this and how to engage with the relevant Aboriginal community. Project Managers, more generally, may also need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains. Project Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 1991* (NSW). Specifically, Roads and Maritime is required to apply to the Director General of NSW Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health (Disposal of Bodies) Regulation 2002* (NSW)[13]. Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at the NSW Department of Health website.

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are

[13] This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

Appendix F

Archaeological Heritage Advice Checklist

The following checklist can be used by the Project Manager and the archaeologist to ensure all relevant archaeological issues are considered when developing the management plan required at Step 4 of this procedure.

An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance.

	Required	**Outcome/notes**
Assessment and investigation		
• Assessment of significance	Yes/No	
• Assessment of heritage impact	Yes/No	
• Archaeological excavation	Yes/No	
• Archival photographic recording	Yes/No	
Heritage approvals and notifications		
• AHIPs, Section 140, S139 exceptions etc	Yes/No	
• Regulator relics/objects notification	Yes/No	
• Roads and Maritime's S170 Heritage and Conservation Register listing requirements	Yes/No	
• Compliance with CEMP or other project heritage approvals	Yes/No	
Stakeholder consultation		
• Aboriginal stakeholder consultation requirements and how it relates to RTA *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI).	Yes/No	
• Advice from regional environmental staff, Aboriginal Cultural Heritage Advisor, Roads and Maritime heritage team.	Yes/No	
Artefact/ heritage item management		
• Retention or conservation strategy (eg items may be subject to long conservation and interpretation) • Disposal strategy (eg former road pavement) • Short term and permanent storage locations (interested third parties should be consulted on this issue).	Yes/No	
• Control Agreement for Aboriginal objects.	Yes/No	
Program and budget		
• Time estimate associated with archaeological or heritage conservation work.		
• Total cost of archaeological/heritage work.		

Appendix G

Template Notification Letter

PASTE INTO RMS LETTER TEMPLATE

"[Select and type date]"

[Select and type reference number]

[Select and type file number]

[Insert recipient's name and address, see **Appendix D**]

[Select and type salutation and name],

Re: Unexpected heritage item discovered during Roads and Maritime Services project works.

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Roads and Maritime Services construction works at [insert location] on [insert date]. [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

This letter is in accordance with the notification requirement under [select: Section 146 of the *Heritage Act 1977* (NSW) or Section 89(A) of the *National Parks and Wildlife Act 1974* (NSW) **NB:** There may be not be statutory requirement to notify of the discovery of a 'heritage Item that is not a relic or Aboriginal object].

NB: On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for Sustainability, Environment, Water, Populations and Communities (SEWPC) in accordance with notification requirements under Section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

[Provide a brief overview of the project background and project area. Provide a summary of the description and location of the item, including a map and image where possible. Also include how the project was assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (eg Part 5). Also include any project approval number, if available].

Roads and Maritime Services [*or contractor*] has sought professional archaeological advice regarding the item. A preliminary assessment indicates [provide a summary description and likely significance of the item]. Please find additional information on the site recording form attached.

Resulting from these preliminary findings, Roads and Maritime Services *[or contractor]* is proposing [provide a summary of the proposed archaeological/heritage approach (eg develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

The proposed approach will be further developed in consultation with a nominated Office of Environment and Heritage staff member.

Please contact me if you have any input on this approach or if you require any further information.

Yours sincerely

[Sender name and position]

[Attach the archaeological/heritage management plan and site recording form].

About this release

Reference number	RMS 12.003 **|** PN 285 P02
Title	Unexpected Heritage Items Procedure
Parent procedure	RMS Heritage Guidelines
Prepared by	Environment Officer (Heritage) Gretta Logue Environment Officer (Heritage) Daniel Percival
Approved by	Manager Environmental Policy, Planning and Assessment Michael Crowley
Document location	Objective - SF2013/153770 / Unexpected heritage items procedure.doc
Document status	Version 1.0, 16 March 2015

Version	Date	Revision description
1.0	01/11/11	First issue
Revised	23 July 2012	Amended to reflect that (a) unexpected finds do not include items covered by a relevant approval; (b) Aboriginal people must be consulted where an unexpected find is likely to be an Aboriginal object; (c) the Department of Planning and Environment must be notified in accordance with Step 5 of this procedure for Part 3A and Part 5.1 projects.
Revised	09 October 2013	Amended to clarify that the procedure applies to all types of unexpected heritage items, not just archaeological items. The procedure introduces the term 'Historic Items' to cover both 'archaeological relics' and 'other historic items' such as works, structures, buildings and movable objects. The title of the document has been amended to better reflect this clarification.
Revised	16 March 2015	The procedure was streamlined to address all project types including maintenance works. The separate maintenance procedure (formerly Appendix B) was removed. Names and titles updated throughout.

Your comments and suggestions to improve this or any of the Heritage Guidelines and associated documents may be sent to:

Senior Environmental Specialist (Heritage)
Environmental Policy, Planning and Assessment
Environment Branch, Roads and Maritime Services
Level 17, 101 Miller Street
North Sydney, NSW 2060
Ph: 8588 5726

rms.nsw.gov.au

heritage@rms.nsw.gov.au

Customer feedback
Roads and Maritime
Locked Bag 928,
North Sydney NSW 2059

Transport
Roads & Maritime
Services

Appendix A3 Environmental Policy

Transport Environment and Sustainability Policy

Transport is a key enabler of economic and social activity. We are committed to delivering transport which contributes to economic prosperity and social inclusion in an environmentally responsible and sustainable manner, consistent with the Future Transport Strategy 2056.

Transport for NSW's activities cover the whole State and its infrastructure will last for generations to come. We have a duty to undertake our activities in the interest of the greater good, moving beyond compliance, and being a genuine leader in environment and sustainability performance.

We will work towards achieving this for NSW by:

- Leadership – contributing to and influencing the strategic environment and sustainability agenda of the NSW Government
- Environmental protection – being accountable for addressing and minimising the environmental impacts of our activities to satisfy the expectations and legislative requirements of the NSW Government and community
- Energy and carbon – improving energy efficiency and working towards net zero carbon emissions
- Resilience – embedding climate risk and resilience considerations in our activities
- Sustainable procurement – procuring and delivering sustainable, efficient and cost effective transport options, including responsible supply chains
- Whole of life – considering whole of life benefits and impacts from our activities across all life cycle stages - demand/need, plan, acquire, operate/maintain and disposal
- Social – recognising the social impacts and benefits of our activities, and working for healthy liveable communities
- Awareness – raising the awareness and capacity of our workforce to be accountable for implementing the Policy through their activities to achieve enhanced environmental outcomes and a culture of environmental responsibility
- Communication – communicating openly, responsively and empathetically with our customers, partners and stakeholders on environmental matters and report on our performance

This Policy applies to the agencies listed below:

- Transport for NSW
- Department of Transport
- Sydney Trains
- NSW Trains
- RailCorp
- State Transit Authority
- Sydney Metro

This Policy applies to permanent, temporary and casual staff of the above agencies, staff seconded from another organisation and contingent workers including labour hire, professional services contractors and consultants.

Rodd Staples
Secretary
13 January 2020

Appendix A4 Minor Ancillary Facilities Checklist

Minor ancillary facility checklist

1. Criteria for minor ancillary facilities

This minor ancillary facility checklist is to be used for minor construction related ancillary facilities including minor site sheds, lunch sheds and portable toilets. These facilities will be located in accordance with MCoA A17 and submitted to the Environmental Representative (ER) and Acoustic Advisor for review, and ER endorsement prior to installation.

Table 1 Criteria for minor ancillary facilities

Site Name	
Portion	
Chainage	

Criteria	Compliant (Y) Yes (N) No	Comments
Located within or adjacent to the construction boundary		
Minimal amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with –		
(a) *Interim Construction Noise Guideline* (DECC, 2009),		
(b) traffic and access impacts,		
(c) dust and odour impacts,		
(d) visual (including light spill) impacts		
Minimal environmental impact with respect to waste management and flooding,		

Site name

Criteria	Compliant (Y) Yes (N) No	Comments
No impacts on the below beyond those already approved under other terms of this approval		
Biodiversity		
Soil and water		
Heritage items		

A locational map including site layout and environmental constraints is attached in Appendix A.

2. Mitigation measures

If the above criteria is not satisfied, add addition mitigation measures to the below table.

Table 2 Site specific mitigation measures

	Measure/Requirement	Responsibility	Timing/ frequency	Reference
INSERT TOPIC				
	Insert mitigation measure			

3. Certification

This minor ancillary facility checklist provides a true and fair review of the proposed activity for the Coffs Harbour Bypass project.

CHB ENVIRONMENTAL MANAGER

Signed _____

Name _____

Date _____

TFNSW ENVIRONMENTAL MANAGER

Signed _____

Name _____

Date _____

CHB ENVIRONMENTAL REPRESENTATIVE

Signed _____

Name _____

Date _____

Appendix A

Locational map including site layout and environmental constraints

Appendix A5 - TfNSW Environmental Incident Classification & Reporting Procedure

Environmental Incident Procedure

Procedure Number: EMF-EM-PR-0001 Environmental Incident Procedure
Effective Date: 19/07/2021
Review Date: 19/07/2023

1 Who is this document for?

All Ongoing / Temporary/ Seconded/Casual staff of TfNSW	**YES**
Transport Service Senior Managers and Executives	**YES**
Labour Hire, Consultants and Professional Service Contractors	**YES**
Delivery Partners / Contractors	**YES**

2 Purpose and Scope

2.1 Purpose

The purpose of this document (Procedure) is to set out the procedure to be followed if, during an activity being carried out by or on behalf of TfNSW, there is:

- a report-only event
- a non-compliance
- regulatory action received
- an environmental incident.

The Procedure sets out the steps for the:

- identification,
- classification and
- reporting

of report-only events, non-compliances, regulatory action and environmental incidents.

2.2 Scope

The Procedure sets out internal only reporting processes for environmental events and the additional process for 'notifiable events', which are environmental incidents that must be reported externally (see section 3.3).

The Procedure is applicable to all TfNSW activities where report-only events, non-compliances, regulatory action and environmental incidents may occur. The requirements of the Procedure must be communicated to all TfNSW employees and contractors (e.g. during inductions) who undertake those activities.

This includes (but is not limited to):

- Activities undertaken by contractors on behalf of TfNSW
- Temporary activities, such as preliminary investigations (e.g. geotechnical and environmental surveys)
- Construction and maintenance of TfNSW assets
- Activities at TfNSW properties and facilities (including TAHE)
- Maritime vessels operated by TfNSW.

The procedure does NOT cover report-only events, non-compliances, regulatory action and environmental incidents relating to:

- Operating agencies embedded within TfNSW, such as Sydney Metro. At the time of release of the Procedure, there was a Corporate Functions Review underway, which sought to incorporate Sydney Trains and NSW TrainLink into TfNSW. The single operating model may involve the future amalgamation of environmental incident procedures. Regardless, it is noted that all agencies provide their incident data to Environment and Sustainability (E&S) Branch for the purposes of cluster reporting;
- Operational road and traffic activities of the general public (e.g. vehicle accidents, fires caused by discarded cigarette butts);
- Boating accidents (except those involving TfNSW Maritime vessels);
- Dumping of materials by members of the public on TfNSW managed land (except where hazardous materials are unexpectedly found during construction or maintenance activities);
- Marine oil and chemical spills covered by the National Plan for Maritime Environmental Emergencies (Australian Maritime Safety Authority, 2014).

The Procedure does not provide guidance on management responses or corrective actions required following environmental incidents and non-compliances, which are site specific and should be addressed by those with responsibility for the activity that caused the incident or non-compliance.

However, TfNSW E&S Branch is available to provide advice on appropriate responses and corrective actions in relation to individual incidents or non-compliances.

3 Requirements

3.1 Environmental incidents, report-only events, non-compliances and regulatory action

This Procedure is applicable to a range of environmental incidents, report-only events, non-compliances and regulatory action that may occur during activities undertaken by, or on behalf of, TfNSW. Each of these events and their reporting requirements are described in the following sections.

Personnel using this Procedure should consider the definitions of each of these events when reporting. Definitions are provided in Section 6.

Note that a set of circumstances may be both a non-compliance and an environmental incident. An environmental incident could also result in regulatory action.

3.1.1 Environmental incidents

Environmental incidents are defined in section 6. Reporting requirements are detailed in section 3.2.

The person responsible for operational management of the site/activity that caused the incident should assume responsibility for reporting in accordance with this Procedure, together with coordinating the response to the incident, including directing actions as necessary.

The TfNSW Environment Manager will classify reported incidents for the purposes of internal environmental performance reporting and analysis of environmental incident trends (as outlined in Figure 3.2.1).

Environmental incident classifications are described in Table 3.1.1, below. The classification system is aligned to the consequence levels (C6 – C1) from the TfNSW Enterprise Risk Management Standard and considers the key risk areas of:

- Environment

- Reputation and Integrity
- Regulations and Compliance.

The appropriate consequence level for each of the three key risk areas will be recorded for each incident, but only the highest recorded consequence level will be used as the incident classification for reporting purposes.

Note that not all criteria described for each consequence level in Table 3.1.1 need to be met in order to assign an incident classification – the most appropriate criteria should be considered when determining the consequence level for each key risk area for each incident.

Table 3.1.1: Environmental Incident Classification

	Incident Category					
Key risk area	**C6 Insignificant**	**C5 Minor**	**C4 Moderate**	**C3 Major**	**C2 Severe**	**C1 Catastrophic**
Environment	No appreciable changes to environment.	Change from existing conditions that can be rectified immediately (< 1 day) with available resources.	Short-term (< 1 year) and/or well-contained environmental impact. Minor remedial actions probably required.	Short to medium term (between 1 and <5 years) environmental impact. Considerable remedial actions probably required.	Medium-term (>5 years) environmental impact. Extensive remedial actions probably required.	Long-term (>10 years) large-scale environmental impact. Extensive and ongoing remedial actions probably required.
Reputation and integrity	Single negative article in local media. Limited social media commentary. Goodwill, confidence and trust retained. Confined to the Branch. Local council may want to discuss.	Series of negative articles in local media (District / electorate based adverse media). Some social media commentary. Confidence remains - minor loss of goodwill. Confined to Branch but requiring notification to Division. Council requires written explanation. Recoverable with little effort or cost. Some continuing scrutiny/attention.	Extended local media coverage with some broader Regional media coverage. Extended negative social media coverage. Confidence and trust of stakeholders dented (recoverable at modest cost within existing budget and resources). Division formal response needed to State Government/Regulator.	State media coverage, short term negative national media coverage. Widespread social media coverage Confidence/trust impaired. Project/activity credibility under question. TfNSW and/or Ministers Department requires update.	Sustained negative State media coverage. Regular 'talk-back' programs questioning credibility and capability. Confidence and trust are severely damaged. Widespread negative social media coverage. Regular updates demanded by Minister. Stakeholders withdraw their support recoverable at considerable cost, time and staff effort.	Sustained, high profile media attention at National level. Material change in the public perception of the Agency. Extensive negative social media coverage Confidence and trust non-existing. Government forced to reverse decision. Stakeholders are actively campaigning against the organisation.

Table 3.1.1: Environmental Incident Classification

	Incident Category					
Key risk area	**C6 Insignificant**	**C5 Minor**	**C4 Moderate**	**C3 Major**	**C2 Severe**	**C1 Catastrophic**
Regulations and compliance	Low-level/Technical non-compliance with legal and/or regulatory requirement or duty by individuals or TfNSW- not reportable. Minor non-compliance to a low impact contract clause – little or no interest by either party to pursue or rectify.	Non-compliance with whole or significant aspects of Government policy not reportable but requiring internal activity to put in place. Formal investigation and/or formal notification to regulator. Minor breach of contract by either party rectified through local management discussion.	Non-compliance with key Government policy - reportable and/or explanation required – need to put in place as soon as possible. Non-compliance – key obligation. Formal notification to regulator. Agency on notice. Breach of contract by either party rectified at Branch level management discussion. Small fine and no disruption to services.	Technical non-compliance with a minor Government Policy - not reportable. Low level non-compliance. Technical non-conformance. Minor non-compliance to a low impact contract clause – little or no interest by either party to pursue or rectify. Substantial fine and no disruption to services.	Non-compliance with high profile, outward facing Government policy or Ministerial decree - immediately reportable to Government body (e.g. Treasury) and action to put in place required immediately (high priority). Continuous breach resulting in prohibition notices. Breach of significant, key aspects of contract by either party leading to lodgement (threat) to sue and recompense at severe financial levels Cessation of contract may occur. Large fines as a result of non-compliance. Licence or accreditation restricted or conditional affecting ability to operate.	Non-compliance with high profile Government policy or Ministerial decree - immediately reportable to Ministerial level requiring actions to put in place immediately (high priority) and progress to be reported to the Minister on an agreed and appropriate schedule. Litigation and potentially imprisonment. Loss of Operating licenses. Continued breach cannot be tolerated. Major contract breach by either party leading to significant litigation and financial costs . Total breakdown and cessation of contract. Criminal prosecution as a result of non-compliance.

3.1.2 Significant environmental incidents

Significant Incidents are environmental incidents that are serious in nature and have significant consequences warranting escalation to TfNSW senior management.

An environmental incident is to be defined and treated by the TfNSW Environment Manager as a potential Significant Incident if it meets one or both of the following:

- the severity of the incident is likely to be classified as C3, C2, or C1 in accordance with Section 3.1.1
- the history of the project, past performance and/or previous regulatory interest, indicate the project is likely to be the subject of a penalty notice or prosecution

Potential Significant Incidents are escalated by TfNSW to the Executive Director Environment and Sustainability, who will determine whether the incident is deemed to be a Significant Incident and require further escalation to the Secretary and other senior management, to ensure they are aware of the incident and can implement or authorise any required responses.

The Significant Incident escalation process is detailed in Appendix A and Figure 3.2.1.

3.1.3 Report-only events

Report-only events are defined in section 6. Reporting requirements are detailed in section 3.2. Examples of report-only events include:

- Environmental incidents caused by weather events that are beyond the design capacity of environmental controls and/or mitigation measures in accordance with project specific requirements;
- Environmental incidents caused by persons or entities not associated with an activity being undertaken by TfNSW;
- Pre-existing conditions not associated with an activity being undertaken by TfNSW;
- Unexpected finds that are managed in accordance with relevant procedures / guidelines.

Despite these events being outside the scope of control of an activity, it is likely that a management response will be required to address them. As such, it is important that they are still reported (see section 3.2) to understand any resulting environmental impacts, inform trend analysis and any future activities in that location and allow any required management responses to be developed.

Report-only events can be considered to be unavoidable and so not reflecting the performance of a site, and will not be included in performance reporting. However, the response to a report-only event should be taken into account when considering site performance, as a deficient or inappropriate management response could result in a non-compliance and/or an environmental incident.

Where a report-only event relates to an unexpected find and the same issue can then reasonably expected to be found at the same location in future, additional finds from that location need not be reported.

3.1.4 Non-compliances

Non-compliance is defined in section 6. Reporting requirements are detailed in section 3.2.

A non-compliance could also be an environmental incident.

3.1.5 Regulatory action

Regulatory action is defined in section 6. Reporting requirements are detailed in section 3.2.

Regulatory action includes, but is not limited to:

- Prosecutions
- Penalty notices
- Clean up notices
- Prevention notices
- Official cautions
- Formal warnings
- EPA show cause notifications.

Copies of any regulatory action issued by an environmental regulator must be provided as part of the reporting that is undertaken in accordance with section 3.2.

3.2 Reporting process

3.2.1 Standard reporting process

The standard reporting process for all environmental incidents, significant environmental incidents, report-only events, non-compliances and regulatory action is detailed in Figure 3.2.1.

Where the reporting process requires submission of a written report to TfNSW, the person making the report must use the following formats and meet the information requirements detailed within each:

- Road based and maritime projects: Environmental Event Reporting Form (624/400)
- Rail based projects: INX reporting system

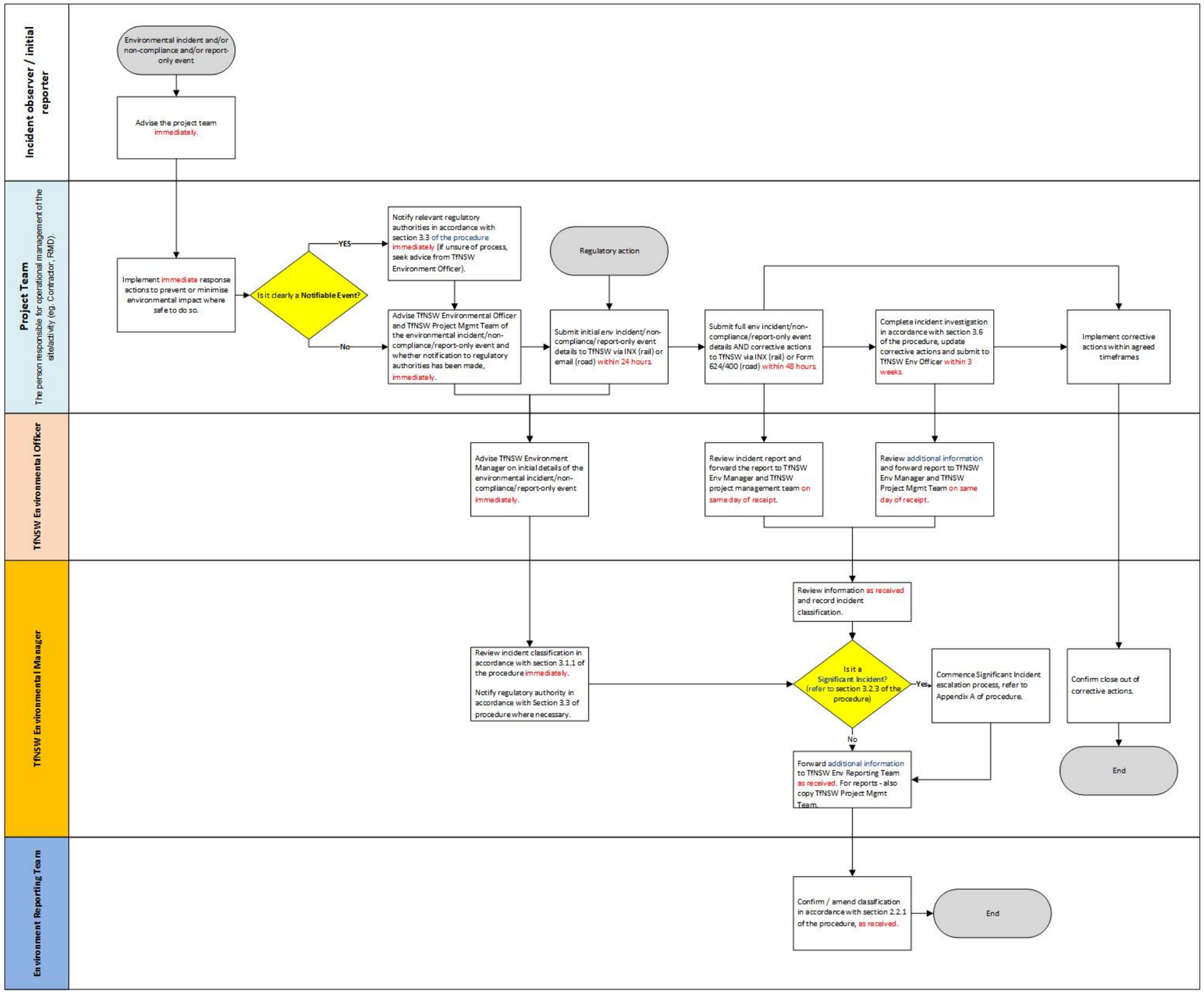
Information included in reporting must be factual and accurate.

For the initial 24-hour email notification for road projects, the following information must be provided:

- Date of event
- Project / site name
- Type of event that has occurred (ie- environmental incident, incident and non-compliance, non-compliance, report-only or regulatory action)
- Description of the event
- Quantity / volume
- Immediate response actions that were implemented
- Notification/s undertaken.

In the case that regulatory action is received relating to a previously reported environmental incident, non-compliance or report-only event, reference to the relevant event must be made in the report for the regulatory action.

Figure 3.2.1: Reporting process



3.2.2 Other internal notifications

When reporting in accordance with Figure 3.2.1, TfNSW project management teams should also undertake the following internal notifications as appropriate:

- Corporate Communications / Media for any environmental incidents, report-only events, non-compliances and regulatory action that have potential for negative community or media attention;
- Legal Branch, for any environmental incidents, report-only events, non-compliances and regulatory action that could result in a (further, in the case of the latter) regulatory response against TfNSW. In these instances, limit written commentary on the incident by all staff, including emails;
- Safety Branch for any incidents that involve actual or potential risks to the health and safety of workers or the general public.

3.3 Notifiable events

A notifiable event is any environmental incident, report-only event or non-compliance (see section 3.1, above) that triggers a specific statutory requirement to notify an authority.

The key notification requirements are described below. Note each statutory requirement to notify may specify a particular person who is responsible to make the notification as well as the timing of when this must occur. The details of any notification conducted must be included in the reporting that is undertaken in accordance with section 3.2.

3.3.1 Material Harm pollution incidents

Under Part 5.7 of the POEO Act, there is a duty to immediately notify (i.e. promptly and without delay) each relevant authority (see section 3.3.2) of a pollution incident where material harm to the environment is caused or threatened.

The POEO Act states that a pollution incident should be considered Material Harm if:

> *"(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
>
> *(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000"*

Material Harm only relates to pollution incidents. Other environmental incidents, such as conservation, heritage and planning breaches, are not included in the definition of a pollution incident.

3.3.2 Notification of Material Harm pollution incidents

The relevant authorities that must be notified for a Material Harm pollution incident are listed in tables 3.3.2a and 3.3.2b below. It is important to note the order of notification and phone numbers to use can vary depending on the nature of the pollution incident, as detailed in the two tables.

All of the authorities listed (whether considered relevant or not) must be contacted for each Material Harm pollution incident to satisfy POEO Act requirements. Serious penalties apply to both individuals and corporations for failing to notify Material Harm pollution incidents:

- Maximum penalty for individuals - $500,000
- Maximum penalty for corporations - $2,000,000.

Table 3.3.2a: Authorities to notify for Material Harm pollution incidents that present an immediate threat to human health or property		
Order	**Authority**	**Contact number**
1	Fire and Rescue NSW	000
2	NSW EPA environment line	131 555
3	Ministry of Health (via the local Public Health Unit)*	Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the NSW Health Website
4	SafeWork NSW	131 050
5	The Appropriate Regulatory Authority*, being either: • Local council • Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council).	Local council - contact Office of Local Government on 4428 4100, or visit the Office of Local Government website Western Lands Commissioner – phone 6883 5400

Table 3.3.2b: Authorities to notify for Material Harm pollution incidents that do **NOT** present an immediate threat to human health or property		
Order	**Authority**	**Contact number**
1	NSW EPA environment line	131 555
2	The Appropriate Regulatory Authority*, being either: • Local council • Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council).	Local council - contact Office of Local Government on 4428 4100, or visit the Office of Local Government website Western Lands Commissioner – phone 6883 5400
3	Ministry of Health (via the local Public Health Unit)*	Contact 1300 066 055 to be directed to the local Public Health Unit, or visit the NSW Health Website
4	SafeWork NSW	131 050
5	Fire and Rescue NSW	1300 729 579

** The appropriate contact for the Appropriate Regulatory Authority and Public Health Unit will vary according to the geographic location of the activity. These contact numbers should be found in advance and stored for immediate access (e.g. in a project's Construction Environmental Management Plan and/or on site notice boards) should a pollution incident need to be notified.*

When notifying authorities, do not speculate on the origin, causes or outcomes of a pollution incident. Rather, state very simply and concisely the following only:

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.

If further information becomes known after the initial notification, that information must immediately be notified to all authorities in accordance with Section 150 of the POEO Act. The verbal notification must be followed by written notification to each relevant authority within seven days of the date on which the incident occurred, setting out the above information.

3.3.3 Summary of other regulatory agency notification requirements

A summary of the other key statutory notification requirements that could arise from TfNSW environmental incidents, report-only events and non-compliances is provided in Table 3.3.3.

Table 3.3.3: Regulatory agency notification requirements				
Event type	**Legislation**	**Part / section**	**Agency**	**Notification requirement**
Discover Aboriginal object	*National Parks and Wildlife Act 1974*	Section 89A	Heritage NSW	Notify the Secretary of the Department of Planning, Industry and Environment in writing using the form approved by the Secretary (if any) within a reasonable time after becoming aware
Discover Aboriginal remains	*Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984*	Section 20	Commonwealth Department of Agriculture, Water and the Environment	Notify the Commonwealth Minister in writing as soon as practicable after becoming aware, giving particulars of the remains and their location
Discover non-Aboriginal relic	*Heritage Act 1977*	Section 146	Heritage NSW	Notify the Heritage Council in writing within a reasonable time after becoming aware
Fires	*Rural Fires Act 1997*	Section 64	NSW Rural Fire Services	Notify an appropriate fire officer of the inability to extinguish any fire burning during a bush fire danger period applicable to the land.
Land contamination	*Contaminated Land Management Act, 1997*	Section 60(1)	EPA	Notify EPA in writing as soon as practicable after becoming aware of the contamination, where required as prescribed in the EPA 'Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997'
Non-compliance	Various	N/A	Various	Requirements to notify the relevant regulatory authority when a non-compliance has occurred (eg- with a Condition of Approval issued under Division 5.2 of the EP&A Act)
Pollution incident (material harm)	*Protection of the Environment Operations Act, 1997*	Part 5.7	EPA	See section 3.3.2
Pollution incident in water supply catchment area	Various	N/A	N/A	Notify the relevant water supply authority if an environmental incident has the potential for unapproved impacts on a drinking water supply

3.4 Requests for written reports from regulatory authorities

If TfNSW receives a request from an environment regulatory authority for a written report regarding an environmental incident, report-only event or non-compliance, the relevant Environment Manager must be immediately contacted for advice. No further correspondence (including email) about the event should be distributed either internally or externally until advice is received. E&S will then coordinate with Legal Branch to:

- assist in the investigation of the environmental incident, report-only event or non-compliance
- provide legal advice to the project
- co-ordinate the preparation of the written response to the regulatory authority.

3.5 Corrective actions

A key aspect of the TfNSW Environment and Sustainability Policy that is addressed through this procedure is being accountable for addressing and minimising the environmental impacts of TfNSW activities. This can be achieved by developing appropriate corrective actions and implementing them within a timely manner following an environmental incident, with the aim of avoiding a repeat of that incident.

There are a variety of scenarios in which an environmental event may occur on a TfNSW project. It is important that corrective actions are:

- specific to the incident that has occurred
- meaningfully address the root cause(s) of the incident
- designed to prevent incident reoccurrence.

Corrective actions could include (but are not limited to) the following:

- physical works to install, augment or rectify controls or a site issue
- testing and/or monitoring
- review and improvement of construction methods or work practices
- review and update of management plans, procedures or other tools
- communication, training and awareness initiatives for workers.

In most cases it will not be sufficient to simply notify workers of correct systems / procedures (e.g. via toolbox talk). A review should be undertaken by the project team following an incident or non-compliance to determine why the systems / procedures failed (or alternatively a formal investigation, when required by section 3.6), and necessary changes made to ensure they do not fail in future. Site staff should then be made aware of the changes and trained as necessary.

Immediate/short-term corrective actions including timeframes for completion must be clearly described in incident/non-compliance reporting. Updates about longer-term corrective actions including timeframes for completion can be provided to the TfNSW Environment Officer and TfNSW Project Management Team post submission of the incident/non-compliance report.

3.6 Investigations

Serious environmental incidents and non-compliances must be investigated to identify the causes, with the purpose of preventing a recurrence. A root cause analysis investigation must be completed by the project team for all environmental incidents with a classification of C1, C2 or C3, or any other environmental incidents or non-compliances as determined by TfNSW.

The scope of the investigation will be determined by the TfNSW Environment Officer or Environment Manager. The project team must provide TfNSW with a final investigation report

within three weeks of the environmental incident or non-compliance being identified. The report must include the minimum information described in Table 3.6 (below).

Table 3.6: Investigations

Element	Description
Sequence of events	The sequence of events that led to the incident or non-compliance
Findings	Given the sequence of events, what are the key findings of the investigation (i.e. what are the main causes of the incident or non-compliance).
Management methods	A record of the management methods to be changed and/or implemented to avoid the incident or non-compliance reoccurring.
Key learnings	Describe the key learnings from the investigation into the incident or non-compliance. Detail which learnings may be relevant to other transport projects.

4 Accountabilities

Table 4 details the key accountabilities for implementing this Procedure.

Table 4: Key accountabilities

Requirement	Detail
Environment Director	Oversee compliance with the procedure and make the final determination on the classification of all environmental incidents, report-only events and non-compliances
Environment reporting team	Recording of all environmental incidents, report-only events, non-compliances and regulatory action, confirm / amend the classification of environmental incidents, report-only events and non-compliances in accordance with section 3.1 and monitor compliance with the Procedure
Executive Director Environment and Sustainability	Make determinations on whether an environmental incident will be considered a Significant Incident (see section 3.1.2). Assume the role of Information Distributor when a Significant Incident has occurred (see Appendix A).
Observer of environmental incident, report-only event, non-compliance or regulatory action	Immediately report in accordance with Figure 3.2.1
Person/s responsible for environmental incident, report-only event, non-compliance or regulatory action	Report and respond in accordance with Figure 3.2.1
Project Managers	Provide appropriate resources to respond to an environmental incident, report-only event, non-compliance or regulatory action in accordance with this Procedure

Table 4: Key accountabilities	
Requirement	**Detail**
TfNSW Environment Manager	Report environmental incidents, report-only events, non-compliances or regulatory action in accordance with Figure 3.2.1, assign initial classification in accordance with section 3.1.1, monitor corrective actions, and actively promote compliance with this procedure at a program level. Assume the role of Information Controller when a Significant Incident has occurred (see Appendix A).
TfNSW Environment Officer	Report environmental incidents, report-only events, non-compliances or regulatory action in accordance with Figure 3.2.1, monitor corrective actions and actively promote compliance with this procedure at a project level

5 Related policy, systems and documents

The following documents and systems are available on agency intranets and the internet:

- Environmental Event Report Form (for use by road and maritime sites and projects)
- INX system (for use by rail and light rail sites and projects)
- Environment and Sustainability Policy
- Unexpected finds procedures – refer to relevant guideline/procedure

6 Definitions and acronyms

All terminology in this Procedure is taken to mean the generally accepted or dictionary definition with the exception of the following terms which have a specifically defined meaning:

- **Significant incident** – an environmental incident that is likely to receive a classification of C3, C2 or C1, OR the history of the project, past performance and/or previous regulatory interest, indicate the project is likely to receive a penalty notice or be subject to prosecution, and therefore requires escalation to the Secretary and other TfNSW senior management
- **DPIE** – Department of Planning, Industry and Environment
- **Environment Director –** consists of Associate Director Environmental Management; Director Environment Motorways; Director Environment Regions; Director Environment Sydney
- **Environment Manager** – consists of Environment Manager or Senior Manager Environment from Environment and Sustainability Branch
- **Environment Officer** – consists of Environment Officer and Environment and Planning Manager from Environment and Sustainability Branch
- **Environment Reporting team** – consists of those in Environment and Sustainability Branch responsible for administering and maintaining the EnvOps mailbox and INX reporting system (for environment entries)
- **Environmental event** – a report-only event, non-compliance, regulatory action or environmental incident
- **Environmental incident** - An environmental incident is an event or set of circumstances, as a consequence of which pollution (air, water, noise, or land) or an adverse environmental impact has occurred, is occurring, or is likely to occur. Adverse environmental impact includes contamination, harm to flora and fauna (either individual

species or communities), damage to heritage items and adverse community impacts. An unexpected find that is not managed in accordance with relevant procedures / guidelines is also considered an environmental incident

- **EPA** - NSW Environment Protection Authority
- **EPL** – Environment Protection Licence (issued by EPA)
- **E&S** – (Safety, Environment and Regulation) Environment and Sustainability Branch
- **Investigation** – The process by which the cause(s) of an environmental incident is examined and identified.
- **INX reporting system** – the online system used to record and track environmental incidents, report-only events, non-compliances and regulatory action relating to rail projects and premises.
- **Non-compliance** - a failure to comply with any condition of approval, environmental assessment safeguard / mitigation measure, licence condition, permit or any other statutory approval relevant to the activity and/or area where the activity occurs;
- **Notifiable event** - Any environmental incident, report-only event or non-compliance that triggers a specific statutory requirement to notify a regulatory authority.
- **POEO Act** - Protection of the Environment Operations Act 1997
- **Pollution** – Pollution (including air pollution, water pollution, noise pollution and land pollution) as defined in the dictionary to the POEO Act.
- **Pollution incident** – Has the same meaning as defined in the dictionary to the POEO Act.
- **Regulatory action** - any formal regulatory response from an environmental regulator including but not limited to penalty notices, clean-up notices, prevention notices, official cautions, show cause notices and formal warnings.
- **Report-only event** - An environmental incident or unexpected find resulting from circumstances outside the scope of controls and of an activity.
- **RMS** – Roads and Maritime Services
- **TfNSW** – Transport for NSW (excludes the operating agencies: Sydney Trains; Sydney Metro; State Transit Authority; NSW TrainLink)
- **Transport Cluster** – all TfNSW divisions and operating agencies (includes the operating agencies: Sydney Trains; Sydney Metro; State Transit Authority; NSW TrainLink)
- **Unexpected find** – An unexpected discovery such as a heritage item, threatened species, contamination, asbestos or hazardous substance.
- **WHS** – Work Health and Safety

7 Document control

7.1 Superseded documents

This Procedure replaces the following documents:

- Roads and Maritime Services Environmental Incident Classification and Reporting Procedure (RMS 17.374)
- Transport for NSW Environmental Incident Classification and Reporting (PR-105)

7.2 Document history

Date & Procedure No	Document owner	Approved by	Amendment notes
19/07/2021 EMF-13/PR-0001	Environment Manager Performance Improvement	Executive Director Environment and Sustainability	N/A

7.3 Feedback and help

For advice on using this Procedure please contact:

Environment Manager Performance Improvement

Email: envops@rms.nsw.gov.au

Phone: (02) 8849 2586.

Appendix A: Significant Incident escalation process

A1 Confirmation of a Significant Incident

Where an Environment Manager believes that a Significant Incident has occurred (see section 3.1.2 and Figure 3.2.1), they must immediately phone the relevant Environment Director. The Environment Director will consult with the Executive Director Environment and Sustainability, who will determine whether the incident will be considered a Significant Incident. Once a Significant Incident has been determined, the escalation process will commence in accordance with sections A2 and A3, below.

A2 Significant Incident information management

Following determination of a Significant Incident (see section A1, above), it is essential that there is fast, consistent and accurate reporting of information to the TfNSW senior management. As such, clear roles and responsibilities must be established in two key areas, as described in Table A2.

Table A2: Roles and responsibilities during a Significant Incident

Role	Who	Responsibilities
Information Controller	Environment Manager (or relevant Environment Officer in their absence)	• Liaise between the on-site TfNSW project management team and the Information Distributor (below) • Be the single point of contact to provide information and updates about the status of the Significant Incident to the Information Distributor
Information Distributor	Executive Director Environment and Sustainability (or relevant Environment Director in their absence)	• Identify the relevant members of the Executive and other senior management that will form the distribution group to be informed about the Significant Incident (see Table A3) • Consolidate information from the Information Controller, and distribute it to the distribution group • Provide key ongoing updates to the distribution group as it becomes available • Respond to enquiries from the distribution group, ensuring all members of the distribution group are copied into every response

A3 Parties to be notified

As described in Table A2, the Information Distributor must identify relevant TfNSW senior management from delivery and client divisions that will form the distribution group to be informed about the Significant Incident, including ongoing updates. Table A3 provides the key positions that must be included (at a minimum), depending on who is undertaking the activity. Depending on the type and location of the activity, there may be other areas of TfNSW that should be included in the distribution group – see section 3.2.2.

The distribution group should all be notified concurrently in a single email that a Significant Incident has occurred. The email should be sent by the Information Distributor within five minutes of making the determination of the Significant Incident.

Table A3: TfNSW distribution group to be notified during a Significant Incident

	Greater Sydney (Client)	**Regional & Outer Metropolitan (Client)**
Transport exec notification	• Secretary	• Secretary
SER exec notification	• Deputy Secretary, Safety Environment and Regulation	• Deputy Secretary, Safety Environment and Regulation
Client exec notification	• Deputy Secretary, Client Division • Executive Director, Community and Place • Relevant City Director (Harbour/River/Parkland)	• Deputy Secretary, Client Division • Executive Director, Community and Place • Relevant Regional Director
Delivery exec notification	• Deputy Secretary, relevant Delivery Area • Executive Director (or equivalent) of relevant Delivery Area (e.g. Head of Sydney Project Delivery, Head of Rail Delivery, Chief Operations Officer, Executive Director Planning and Programs) • Director of relevant Delivery Area (e.g. WSPO, GSPO, Parramatta Light Rail, Rail Infrastructure Delivery, Sydney Maintenance, Easing Sydney's Congestions etc.)	• Deputy Secretary, relevant Delivery Area • Executive Director (or equivalent) of relevant Delivery Area (e.g. Head of Regional Project Delivery, Executive Director Network and Assets) • Director of relevant Delivery Area (e.g. Regional Maintenance, NPO, SaWPO)
Project Team notification	• Project Director (or equivalent) of relevant Delivery Area • Senior Project Manager • Project Manager • Environment Manager	• Project Director (or equivalent) of relevant Delivery Area • Senior Project Manager • Project Manager • Environment Manager