APPENDIX B10

Construction Contaminated Land Management Plan

Early Works – Wave 1 & 3 (part)

Woolgoolga to Ballina

Pacific Highway Upgrade

DECEMBER 2015

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Glossary / Abbreviations

CCLMP	Construction Contaminated Land Management Plan
CEMP	Construction Environmental Management Plan
CHMP	Construction Heritage Management Plan
CoA	Condition of approval
DP&E	Department of Planning and Environment
EIS	Environmental Impact Statement
ENM	Excavated Natural Material – classification under POEO Act
EPA	Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPL	Environment Protection Licence under the POEO Act
EWMS	Environmental Work Method Statements
Golding	Golding Contractors Pty Ltd
Minister, the	Minister for Planning
NOW	NSW Office of Water
NPW Act	*National Parks and Wildlife Act 1974*
OEH	Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
Project, the	Early Works – Wave 1 & 3 (part), Woolgoolga to Ballina, Pacific Highway Upgrade
Secretary	Secretary of the Department of Planning and Environment (formerly known as the Director General)
RMS	NSW Roads and Maritime Services
Submissions / PIR	Submissions / Preferred Infrastructure Report November 2013
VENM	Virgin Excavated Natural Material – classification under POEO Act

1 Introduction

1.1 Context

This Construction Contaminated Land Management Plan (CCLMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the Early Works - Wave 1 and part of Wave 3 Project, which is part of the upgrade of the Pacific Highway between Woolgoolga and Ballina.

This CCLMP has been prepared to address the requirements of the Minister's Conditions of Approval (CoA), the mitigation measures listed in the Pacific Highway Upgrade Woolgoolga to Ballina Environmental Impact Statement (EIS), the requirements of the Project Specifications, and applicable legislation.

This Plan has been prepared for Wave 1 and 3 (part) of the Project which broadly includes:

- Ground treatment and preparatory earthworks (soft soils treatments) between STN 83400 and 91200.
- Excavation of material taken from a highway cutting at Tyndale (at approximate STN 69000 to 69500) for the soft soil treatments.
- Excavation of material taken from highway cuttings North of McIntyres Lane, Gulmarrad (at approximate STN 77500 to 78400) for the soft soil treatments.
- Excavation of material south of McIntyres Lane, Gulmarrad - Greenhills cutting (at approximate STN 76000 to 77075) for the soft soil treatments. McIntyres Lane would be widened to support truck movements from this cutting.
- Relocation of utility services at various locations throughout STN 67200 to 95100.

These works would be located within Sections 4 and 5 of the Approved Project.

1.2 Background

The Pacific Highway Upgrade Woolgoolga to Ballina EIS (RMS 2012) assessed potential land contamination impacts from construction of the Project.

The EIS identified 21 areas of potential environmental concern within or near the Project boundary within Sections 4 and 5 of the Project; 14 of which were considered to potentially present a risk to the environment. The EIS also identified potential impacts during construction; primarily relating to the mobilisation of surface and subsurface contaminants during excavation, earthworks and demolitions, and the migration of such contaminants to sensitive receivers (ecological and human receptors).

Additional management measures were provided within the *Woolgoolga to Ballina Submissions / Preferred Infrastructure Report Nov 2013*, with applicable management measures from that report included in Section 6 of this CCLMP.

1.3 Environmental management systems overview

The overall Environmental Management System for the Project is described in the Construction Environmental Management Plan (CEMP).

The CCLMP is part of the environmental management framework for the Project, as described in *Section 4.1 of the CEMP*.

Management measures identified in this Plan will be incorporated into site or activity specific Environmental Work Method Statements (EWMS). EWMS will be developed and signed off by environment and management representatives prior to associated works and construction personnel will be required to undertake works in accordance with the identified requirements and associated mitigation measures.

Used together, the CEMP, strategies, procedures and EWMS form management guides that clearly identify required environmental management actions for reference by Golding personnel and sub-contractors.

The review and document control processes for this Plan are described in *Section 1.6 and Chapter 10 of the CEMP*.

2 Purpose and objectives

2.1 Purpose

The purpose of this Plan is to describe how Golding proposes to manage potential contamination impacts during construction of the Project.

2.2 Objectives

The key objective of the CCLMP is to ensure that impacts to ecological and human receptors from contaminated materials are minimised. Specific objectives include:

- Identifying, assessing and managing potentially contaminated sites in accordance with legislative and Project requirements.
- Apply appropriate mitigation measures during Project construction activities to avoid or minimise significant potential impacts from contaminated materials.
- Manage unexpected finds of contaminated material to avoid or minimise risk to ecological and human receptors.
- Ensure contaminated land is managed to achieve criteria appropriate for the land use (i.e. a road).
- Ensure that migration of contaminated material off site does not occur as a result of the Project construction activities.

The process for achieving these objectives is documented through mitigation measures detailed in Table 6-1.

2.3 Targets

The following targets have been established for the management of contaminated land during the project:

- Ensure full compliance with the relevant legislative requirements, EPL and CoA.
- Ensuring training on contaminated land management is provided to all construction personnel through site inductions.

3 Environmental requirements

3.1 Relevant legislation and guidelines

3.1.1 Legislation

Legislation relevant to the management of contaminated land for the Project includes:

- *Environmental Planning and Assessment Act 1979.*
- *Protection of the Environment Operations Act 1997*.
- Protection of the Environment Operations (General) Regulation 2009.
- Protection of the Environment Operations (Waste) Regulation 2005.
- *Contaminated Land Management Act 1997*.
- *Environmentally Hazardous Chemicals Act 1985*.

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

3.1.2 Guidelines and standards

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

- Waste Classification Guidelines 2014 (EPA Publication).
- Roads & Maritime Services (2013) Guideline for the Management of Contamination.
- Roads & Maritime Services (2012) Environmental Incident Classification and Reporting Procedure.
- NSW Department of Environment & Climate Change Guidelines for NSW Site Auditor Scheme.
- NSW Department of Planning State Environmental Planning Policy 55 – Remediation of Land.
- Department of Urban Affairs and Planning and Environment Protection Authority (1998) Planning Guidelines SEPP 55 – Remediation of Land.
- NSW Office of Environment and Heritage (2011) Guidelines for Consultants Reporting on Contamination Sites.
- Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (NSW Department of Environment and Climate Change, 2009)

3.2 Minister's Conditions of Approval

The CoA relevant to this Plan are listed

Table 3-1. A cross reference is also included to indicate where the condition is addressed in this Plan or other project management documents.

Table 3-1 Conditions of Approval relevant to land contamination

CoA No.	Condition Requirements	Document Reference
B37	**Land Contamination** Prior to the commencement of site preparation and excavation activities, or as otherwise agreed by the Secretary, in areas identified as having a moderate to high risk of contamination, a site audit shall be carried out by a suitably accredited contaminated site auditor. A **Site Audit Report** is to be prepared by the site auditor detailing the outcomes of Phase 2 contamination investigations within these areas. The Site Audit Report shall detail, where relevant, whether the land is suitable (for the intended land use) or can be made suitable through remediation. Where the investigations identify that the site is suitable for the intended operations and that there is no need for a specific remediation strategy, measures to identify, handle and manage potential contaminated soils, materials and groundwater shall be identified in the Site Audit Report and incorporated into the Construction Environmental Management Plan. Where the investigations identify that the site is suitable for the intended operations and that a remediation strategy is required, the Site Audit Report shall include a remediation strategy for addressing the site contamination, and how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater, and be incorporated into the Construction Environmental Management Plan. Where remediation is required, a **Site Audit Statement(s)** shall be prepared verifying that the site has been remediated to a standard consistent with the intended land use. ***Note*** *Terms used in this condition have the same meaning as in the Contaminated Land Management Act 1997.*	This plan
D26 (c) (viii)	As part of the Construction Environmental Management Plan for the SSI, the Applicant shall prepare and implement: (c) a Construction Soil and Water Quality Management Plan to manage surface and groundwater impacts during construction of the SSI. The Plan shall be developed in consultation with the EPA, DPI (Fisheries), NOW, Rous Water (in relation to the Woodburn borefield), DoE and the relevant council and include, but not necessarily be limited to: (viii) management measures for contaminated material and a contingency plan to be implemented in the case of unanticipated discovery of contaminated material during construction;	This plan and Appendix B4
D25 (d) (vii)	The Applicant shall prepare and implement (following approval) a Construction Environmental Management Plan for the SSI, prior to the commencement of construction, or as otherwise agreed by	This plan

CoA No.	Condition Requirements	Document Reference
	the Secretary. The Plan shall be prepared in consultation with the EPA, OEH, DPI (Fisheries), NOW and DoE and outline the environmental management practices and procedures that are to be followed during construction, and shall be prepared in consultation with the relevant government agencies and in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The Plan shall include, but not necessarily be limited to: (d) an environmental risk analysis to identify the key environmental performance issues associated with the construction phase and details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the construction of the SSI). In particular, the following environmental performance issues shall be addressed in the Plan: (vii) measures for the handling, treatment and management of contaminated materials;	

4 Existing environment

4.1 Potential areas of contamination

Information on contamination as presented in the EIS was obtained from preliminary site contamination studies carried out for previous project development phases and a follow-up assessment of contamination carried out in 2012.

The assessment in the EIS considered the proximity of potentially contaminated areas to the project boundary, the likelihood of exposure of contamination during project construction, and the potential consequences of disturbance and exposure of contaminants. Sources of information on areas of potential contamination included:

- RMS and local councils.
- Registers of potential and confirmed contaminated sites maintained by the NSW Environment Protection Authority, including the List of NSW Contaminated Sites notified to EPA and the Contaminated Land: Record of Notices.
- Registers maintained by the NSW Environment Protection Authority under the Protection of the Environment Operations Act 1997.
- The register of cattle dip sites maintained by the NSW Department of Primary Industries.

There are 21 areas identified in the EIS that could contain areas of contamination (identified as 'potential areas of environmental concern'), including areas within and near the project boundary, within Sections 4 and 5 of the Project (refer to Sensitive Area Plans in Appendix A5 of the CEMP and Figure 9-15 and Figure 9-16 in the EIS). These areas are listed in Table 9-5 of the EIS and are largely associated with past land uses, including sawmills, farms, plantations, cattle dip sites, service stations, landfills or areas of agricultural or forestry uses (identified as either 'agricultural property' or 'general observation'). Potential contaminants include:

- Heavy metals (e.g. arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc).
- Hydrocarbons (e.g. benzene, toluene, ethylbenzene and xylene).
- Polycyclic aromatic hydrocarbons.
- Pesticides, including organochlorine pesticides (e.g. endosulfan, aldrin, BHC, chlordane, dieldrin, DCB and heptachlor) and organophosphorous pesticides.
- Polychlorinated biphenyls (PCBs).
- Asbestos.
- Potential contaminants associated with unexploded ordnance.
- Nutrients (ammonia, nitrogen, nitrate, nitrite).
- Microbiological (e.coli, faecal coliforms).
- Acid sulfate soils.

Table 9-9 in the EIS provides details of those areas of environmental concern which are believed to represent the highest risk with respect to potential impacts to receptors through release of contamination during construction activities. Table 4-1 below identifies those sites relevant to Sections 4 and 5 of the Project.

Table 4-1 Areas of potential contamination within Sections 4 and 5

Site	Site name and description	Project section	Location
30	RMS stockpile	4	Within project boundary
31	Former cattle dip site	4	Adjacent to project boundary
33	Cattle dip site	4	Adjacent to project boundary
34	Agricultural	4	Adjacent to project boundary
35	Cattle dip site	4	Adjacent to project boundary
36	Service station	4	Adjacent to project boundary
37	Agricultural	4	Adjacent to project boundary
38	Former fuel depot	4	Adjacent to project boundary
39	Townsend sewage treatment plant	4	Adjacent to project boundary
43	Harwood Bridge – signage manufacturer	5	Adjacent to one nominated ancillary facility (site 2a)
44	Harwood Bridge	5	Within project boundary
45	United service station, eastern side of existing highway	5	Within project boundary
46	Mills truck depot, western side of existing highway	5	Within project boundary
47	Mororo Bridge	5	Within project boundary

* Source EIS

Table 4-2 identifies where the works would be located within 50 metres of areas of potential contamination.

Table 4-2 Areas of potential contamination within 50 m of works

Site	Site name and description	Project section	Location	Description
30	RMS stockpile	4	Within project boundary	Site will not be impacted by the proposed works and is not being considered as an ancillary facility for this stage of the works.
45	United service station, eastern side of existing highway	5	Within project boundary	Utility adjustments (underboring) proposed approx. 20 m north of the site.
46	Mills truck depot, western side of existing highway	5	Within project boundary	Utility adjustments (trenching) proposed along the western boundary of the depot. Soft soil to the southern boundary. Existing raised platform to be trimmed to natural ground level.

* Source EIS

4.2 Further investigation

The EIS required that contamination would be addressed through further studies prior to construction with appropriate mitigation and management measures identified. This would be triggered where the works impacts areas identified in Table 4-1 and where excavation and earthworks would present risk of migration of contaminants to sensitive receivers (ecological and human receptors). In such instances, a Site Audit Report and Site Audit Statement may be required; pursuant to CoA B37. Management of potential contamination will be determined on the basis of site assessments being undertaken and prior to commencement of construction.

Based on a review of the EIS, the scope of works and the works footprint, Site 46 (Mills truck depot) is under environmental assessment to comply with CoAB37. Site 46 represents a medium to high risk of contamination being present and may require additional assessment and remediation options to be considered once environmental assessment is completed. The environmental risk at this location may be associated with fill materials exceeding adopted fill reuse criteria, soil vapour risk and potentially impacted groundwater maybe present. Works in and around Site 47 will be staged to cater for the time requirements that may be required to comply with CoA B37. Golding is currently pricing the demolition of Mills transport depot, following a preliminary hazardous materials inspection report (127622003-125-Rev0) conducted by Golder Associates.

Other potential sites of contamination may include dwellings and sheds listed in QA Specification GN9, Property Demolition. For each property, arrange inspection and testing by a competent person to check whether structures to be demolished were constructed before building products containing asbestos were prohibited and if so, whether an asbestos register exists (*WHS Regulation 2011 clause 450*). Notify the Principal of the outcome of these enquiries.

If any ground is disturbed and appears to be contaminated, cease demolition work that could create any further disturbance and notify the Principal, in accordance with Specification RMS G36 Clause 4.5.

4.3 Areas of unexpected contamination

Where excavation and earthworks are required there is potential to expose unexpected forms of contamination within the surface and subsurface. In such instances, action is required to mitigate potential contaminated soil/material encountered during excavation or construction activities.

5 Environmental aspects and impacts

5.1 Construction activities

Key aspects of the Project that could result in adverse land contamination impacts include:

- Clearing of vegetation
- Demolition
- Bulk earthworks
- Importing, handling, stockpiling and transporting of material resources
- Excavation, including for drainage works and utility relocations.
- Material stockpiles including the treatment of acid sulfate material.
- Compound operation including fuel and chemical storage, refuelling and chemical handling.

Refer also to the Aspects and Impacts Register included in Appendix A2 of the CEMP.

5.2 Potential impacts

The potential for contamination impacts is dependent on the nature, extent and magnitude of construction activities and their interaction with the surrounding environment. Potential impacts attributable to construction might include:

- Contamination of soils, surface water and groundwater from accidental spills or oil leaks. This might include grease or fuel from machinery and vehicles, construction sites or compounds, or spills of other chemicals that may be used during the course of construction.
- Disturbance of unidentified contaminated land (e.g. former cattle tick dip sites, or other pesticide/chemical concentrations in soil from historical land use practices) and subsequent generation of contaminated runoff.
- Increased volume of contaminated material from improper material management associated with delayed identification of contaminants.

6 Environmental mitigation and management measures

A range of environmental requirements and control measures are identified in the various environmental documents, including the EIS, supplementary assessments, Conditions of Approval and RMS documents, and from recent experience on similar road projects. Specific measures and requirements to address land contamination impacts are outlined in Table 6-1.

Table 6-1 Contaminated land management and mitigation measures

ID	Measure / Requirement	Resources needed	When to implement	Responsibility	Reference
GENERAL					
LC1	Training will be provided to all project personnel, including relevant sub-contractors on how to identify and report soils that are potentially contaminated.	Project inductions	Pre-construction / Construction	Construction Manager / Environmental Site Representative	G36, Good practice
LC2	If potentially contaminated material is encountered the Unexpected Discovery of Contaminated Land Procedure (Appendix A) will be followed. Works in the vicinity will be stopped or modified and will not recommence until the material has been analysed and management measures developed to address disposal of contaminated waste, soil vapour risk and potentially impacted groundwater.	Contaminated Land Management Guideline (RMS)	Pre-construction / Construction	Project Manager/ Construction Manager /Superintendent/ Environmental Site Representative	G36, CoA B337, Good practice
LC3	RMS and its contractors will manage any land contamination events identified onsite, whether or not caused by RMS or its contractors, in accordance with Roads & Maritime Services (2012) Environmental Incident Classification and Reporting Procedure.		Pre-construction / Construction	Project Manager/ / Construction Manager /Superintendent/ Environmental Site Representative	G36, Good practice
LC4	The RMS Representatives and relevant Authorities will be notified immediately of any suspected or potential contamination exposed during construction activities.		Pre-construction / Construction	Construction Manager / Environmental Site Representative	G36, EPL, Good Practice
LC5	The location of stockpiles of contaminated material will be identified in consultation with RMS, Construction Procedure – Unexpected Discovery of Contaminated Land, and the Ancillary facilities management plan.	suitably qualified contamination specialist	Pre-construction / Construction	Construction Manager / Environmental Site Representative	Good Practice

ID	Measure / Requirement	Resources needed	When to implement	Responsibility	Reference
LC6	Temporary stockpiling of potentially contaminated materials would be managed to prevent dispersal of contaminants (wind/rain) to ecological/human receptors via: • Locate stockpile on concrete slabs or plastic lined floor. • Restrict access by unauthorised personnel • Provide suitable cover over stockpile and anchor objects (with no sharp edges) • Divert runoff from stockpile via collector drains to an impervious sump for monitoring and treatment.		Pre-construction / Construction	Construction Manager / Environmental Site Representative	Good Practice
LC7	The disposal of contaminated material, whether solid or liquid, will be managed in accordance with the Construction Waste and Energy Management Plan.	suitably qualified contamination specialist	Pre-construction / Construction	Construction Manager / Environmental Site Representative	EPL, Good Practice
LC8	Imported fill will be assessed against the VENM or ENM criteria as defined in the NSW EPA (2014) Waste Classification Guidelines.		Pre-construction / Construction	Construction Manager / Environmental Site Representative	EPL, Good Practice
CONTAMINATION					
LC9	A hazardous materials buildings assessment will be carried out before the demolition of any structures or buildings to identify the issues of concern and the management requirements. This is required under Clause 1.6 of Australian Standard AS 2601 – 2001 The Demolition of Structures.	RMS QA Specification GN9	Construction	Environmental Site Representative / Superintendent / Foreman	Submissions / PIR (SSW21)
LC10	Areas of known or likely contaminated land will be assessed and managed in accordance with CoAB37, a Remedial Action Plan developed in accordance with G36 and a site specific EWMS developed for the site.	Contaminated Land Management Guideline (RMS)	Pre-construction / Construction	Project Engineer / Environmental Site Representative	CoA B37, G36
LC11	The storage, handling and use of the chemicals and fuels will be in accordance with the Work Health and Safety Act 2000, Workcover's Storage and Handling of Dangerous Goods Code of Practice (WorkCover, 2005), EPA Bunding and Spill Management Guidelines and RMS Code of Practice for Water Management.	App. J Emergency Spill Response Plan (App B4 CSWMP)	Construction	Environmental Site Representative / Superintendent / Foreman	Submissions / PIR (SSW23)

7 Compliance management

7.1 Roles and responsibilities

The Project Team's organisational structure and overall roles and responsibilities are outlined in *Section 4.2 of the CEMP*. Specific responsibilities for the implementation of environmental controls are detailed in Section 6 of this Plan.

7.2 Training

All employees, contractors and utility staff working on site will undergo site induction training relating to contamination issues. The induction training will address elements related to contaminated land including:

- Existence and requirements of this sub-plan.
- Relevant legislation.
- Roles and responsibilities for contaminated land management.
- Procedure to be implemented in the event of an unexpected discovery of contaminated land.

Targeted training in the form of toolbox talks or specific training will also be provided to relevant personnel. Examples of training topics include:

- Contaminated material stockpile location criteria and control methods
- Spill response.
- Identification of potentially contaminated spoil and fill material.

Further details regarding staff induction and training are outlined in *Section 5 of the CEMP*.

7.3 Monitoring and inspection

Regular monitoring and inspections will be undertaken during construction.

Additional requirements and responsibilities in relation to inspections, in addition to those in Table 6-1 , are documented in *Section 8.2 of the CEMP*.

7.4 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental mitigation and management measures, compliance with this plan, CoA and other relevant approvals, licenses and guidelines.

Audit requirements are detailed in *Section 8.4 of the CEMP*.

7.5 Reporting

Reporting requirements and responsibilities are documented in *Sections 8.4 and 8.5 of the CEMP*.

8 Review and improvement

8.1 Continuous improvement

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

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

8.2 CCLMP update and amendment

The processes described in *Chapter 8 and Chapter 9 of the CEMP* may result in the need to update or revise this Plan. This will occur as needed.

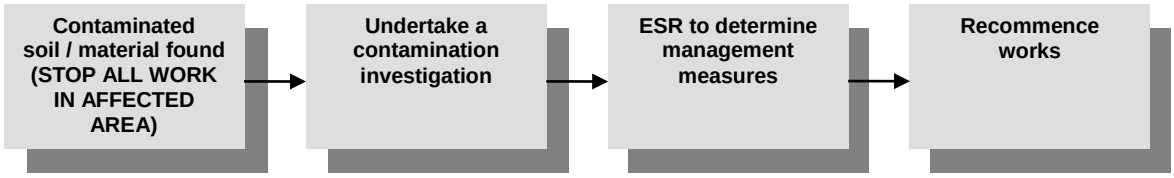
Any revisions to the CCLMP will be in accordance with the process outlined in *Section 1.6 of the CEMP*.

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure – refer to *Section 10.2 of the CEMP*.

Appendix A
Unexpected Discovery of Contaminated Land Procedure

CONSTRUCTION PROCEDURE
UNEXPECTED DISCOVERY OF CONTAMINATED LAND

Purpose: This Procedure details the actions to be taken when potential contaminated soil / material is encountered during excavation / construction activities.

Project No.:	RMS 00031	**Project Description:**	Pacific Highway Upgrade - Woolgoolga to Ballina Early Works – Wave 1 and Wave 3 (part)
Scope of Procedure	This Procedure is applicable to all activities conducted by personnel that have the potential to uncover / encounter contaminated soil / material.  Attachment 1: Unexpected Discovery of Contaminated Land Procedure Flow Chart details the steps taken in the event of the unexpected discovery of contaminated land.		

Procedure

1. Potential Contaminated Soil / Material Encountered during Construction Activities

- Indicators of contamination in soil include:
- Discolouration of the soil, including staining and horizontal layering of discolouration
- Odours from soil
- Oily sheen on water leaving soil

If potential contaminated soil / material is encountered during excavation / construction activities:

- **STOP ALL WORK** in the immediate / affected area
- Access and contact with material / vapour potentially hazardous to human health should be restricted and treated in accordance with Emergency Spill Response Plan (CEMP Appendix B4)
- Potentially hazardous substance or not manageable with site resources notify NSW Fire Brigade (Ph 1300 729 579)
- Immediately notify the Environment Site Representative (ESR) or Project Manager (PM)
- Following decontamination of equipment recommence works in an alternate area where practicable.

2. Personal Protective Equipment (PPE)

Prior to any contamination investigation / management, appropriate personal protective equipment (PPE) is to be worn as per the relevant Safety Data Sheet(s) (SDS).

This may include, but not be limited to:

- Eye protection;
- Face mask;
- Rubber boots;
- Rubber gloves; and

  Work clothes (long sleeve shirt/pants) and disposable overalls.

3. Undertake a Site/Area Contamination Investigation

The G36 Hold Points to be implemented:

- Clause 3.2.2 Regulatory Requirements and Compliance – Commencement of any activity requiring an approval, licence and/or permit from and appropriate authority.
- Clause 4.2 Contaminated Land – Activities within the vicinity of actual or suspected contaminated land.
- Clause 4.11.2 Waste Management Register – Transport of waste to a place that is not owned by RMS and is not a licensed waste facility.

The ESR or PM is to assess the situation and if considered necessary, commission a suitably qualified contamination specialist to undertake a contamination investigation in the area of the find in accordance with G36 s4.2 and CoA B37.

The material is to be classified in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (EPA 2014).

If necessary, the ESR or PM will liaise with the relevant authorities to determine the appropriate management options.

The ESR (in consultation with specialists) will determine the appropriate management measures to be implemented. This may include containment and treatment or offsite disposal. If the material is to be disposed of offsite, ensure the waste facility is appropriately licensed.

If the material is determined to be acid sulfate soil or potential acid sulfate soil, the Acid Sulfate Material Unexpected Find construction procedure is to be followed.

4. Remedial Action

Remedial actions are to be incorporated into specific Environmental Work Method Statements (EWMS), to be further toolboxed to relevant project personnel and subcontractors.

Remedial works are to be undertaken in line with the EWMS.

5. Recommence Works

Recommence works once remedial works have been implemented and the ESR grants approval following release of hold point.

CONSTRUCTION PROCEDURE
UNEXPECTED DISCOVERY OF CONTAMINATED LAND

Attachment 1: Unexpected Discovery of Contaminated Land Procedure Flow Chart