

Appendix B9

Contaminated Land Management Sub-Plan

Transport for NSW Package 3 – Portion 2 Early Works

Parramatta Light Rail – Stage 1
February 2021

PLR-VNT-SAM-CO-PLN-000004

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Contents

Contents	i
Document Control	iii
Glossary / Abbreviations	v
1 Introduction	1
1.1 Context and scope	1
1.2 Background and project description	2
1.3 Environmental management systems overview	6
2 Purpose and objectives	7
2.1 Purpose	7
2.2 Objectives	7
2.3 Targets	8
3 Environmental Requirements	9
3.1 Relevant legislation and guidelines	9
3.2 Minister's Conditions of Approval	11
3.3 Revised Environmental Mitigation and Management Measures	14
3.4 Environmental Performance Outcomes	18
4 Existing Environment	19
4.1 Site geology and acid sulphate soils	19
4.2 Contamination	20
4.3 Site History	21
4.4 Previous investigations and Site Investigation Report	22
4.5 Previous remediation	28
5 Environmental aspects and impacts	29
5.1 Construction activities	29
5.2 Impacts	29
6 Environmental control measures	30
7 Compliance management	33
7.1 Site Management	33
7.2 Roles and responsibilities	34
7.3 Training	34
7.4 Monitoring and inspections	35
7.5 Auditing	36
7.6 Remediation Action Plan (RAP)	36
7.7 Site Audit Statement (SAS)	36
7.8 Reporting	36

8 Review and improvement	37
8.1 Continuous improvement	37
8.2 CLMP update and amendment	37
Appendix A - Unexpected Finds Procedure	38
Appendix B – Site layout	39
Appendix C – Voluntary Management Proposal (VMP) number 20191710	40
Appendix D - ER Endorsement	41

Parramatta Light Rail – Stage 1

Portion 2 Early Works (Package 3) – Contaminated Land Management Sub-plan

Document Control

Title	Parramatta Light Rail – Stage 1 Portion 2 Early Works (Package 3) Contaminated Land Management Sub-plan
Prepared and updated by	██████████, Environmental Engineer
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Dated	25/02/2021
Endorsed by Environment Representative	██████████ Environmental Representative
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Version control

Revision	Date	Description	Prepared by	Approval
00	01/03/2019	For Review	██████████	██████████
01	11/04/2019	Post TfNSW & ER Review / ER Endorsement	██████████	██████████
02	16/07/2019	Post DPIE CEMP Review	██████████	██████████
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04	17/04/2020	TfNSW Comments	██████████ ██████████	██████████

05	25/02/2021	6 monthly review and Minor updates		
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Glossary / Abbreviations

Abbreviations	Expanded text
ACM	Asbestos containing material
AEI	Area of Environmental Interest
ASS	Acid Sulfate Soils
CEMP	Construction Environmental Management Plan
CLM Act	<i>Contaminated Land Management Act 1997</i>
CoA	NSW Minister for Planning Conditions of Approval
DPIE	NSW Department of Planning, Industry and Environment (formerly known as Department of Planning and Environment)
ECM	Environmental Control Map
The EIS	<i>Parramatta Light Rail (Stage 1) – Westmead to Carlingford via Parramatta CBD and Camellia Environmental Impact Statement, August 2017</i>
Environmental Representative	A suitably qualified and experienced person independent of the Contractor and Proponent, and project design and construction personnel, employed for the duration of construction. The Environmental Representative sits under the Independent Certifier.
EMS	Environmental Management System
EPA	NSW Environment Protection Authority
EPO	Environmental Performance Objectives
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
ERSED	Erosion and Sediment
GTP	Groundwater Treatment Plant – Constructed in Portion 1 Works which replaced the pre-existing Groundwater Treatment Plant
LTEMP	Long Term Environmental Management Plan
mbgl	metres below ground level
OEH	Office of Environment and Heritage
PASS	Potential Acid Sulfate Soils
PCI	Pacific Chemical Industries

POEO Act	<i>Protection of the Environment Operations Act 1997</i>
RAP	Remediation Action Plan
REMMM	Revised Environmental Mitigation and Management Measure
SAR	Site Audit Report
SAS	Site Audit Statement
SPIR	Submissions and Preferred Infrastructure Report
TWTP	Temporary Water Treatment Plant
VCH	Volatile Chlorinated Hydrocarbons
VMP	Voluntary Management Plan

1 Introduction

1.1 Context and scope

This Contaminated Land Sub-Plan (CLMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the Parramatta Light Rail – Stage 1 PLR (Stage 1 or the Project) and has been prepared to target specifically *Package 3: Early Works in Portion 2* (referred hereafter as Portion 2 Early Works) as part of the Enabling Stage of the Project. Refer to the Parramatta Light Rail (Stage 1) Staging Report (Project Wide) (TfNSW 2019) for further detail.

Package 3: Early Works Portion 2: the remediation (capping) of the TfNSW owned site at 6-8 Grand Avenue, Rosehill. This is the allocated site for the SaM Facility.

Ventia Pty Ltd (Ventia) has been appointed by Transport for NSW (TfNSW) as the head contractor for Portion 2 Early Works, responsible for delivering the remediation (capping) of the TfNSW owned site at 6-8 Grand Avenue Rosehill (refer to Section 1.4 of the CEMP for project scope).

This CLMP has been prepared to address the requirements of the Minister’s Conditions of Approval (CoA) and the revised environmental mitigation and management measures (REMMM) listed in the *Parramatta Light Rail (Stage 1) – Westmead to Carlingford via Parramatta CBD and Camellia Environmental Impact Statement, August 2017* (the EIS) and the subsequent Submissions Report (incorporating Preferred Infrastructure Report) (TfNSW 2018) and all applicable legislation.

This CLMP provides the management approach and requirements (including environmental mitigation measures, controls, monitoring and reporting) for managing contaminated land during construction of Portion 2 Early Works. This Plan forms one of six sub-plans which are collectively covered by the Construction Environmental Management Plan (CEMP). Effective implementation of the CEMP (and associated sub-plans) will ensure that environmental resources, responsibilities and management measures are adopted during the construction activities associated with Portion 2 Early Works.

The implementation of the CEMP and associated sub-plans are aligned with Project level management plans including the Community and Stakeholder Engagement Plan and the Sustainability Plan as illustrated in Figure 1-1.

The review and document control process for this Plan are described further in [Section 8](#).

The context of this CLMP in relation to the environmental management system is presented below in **Figure 1-1**.

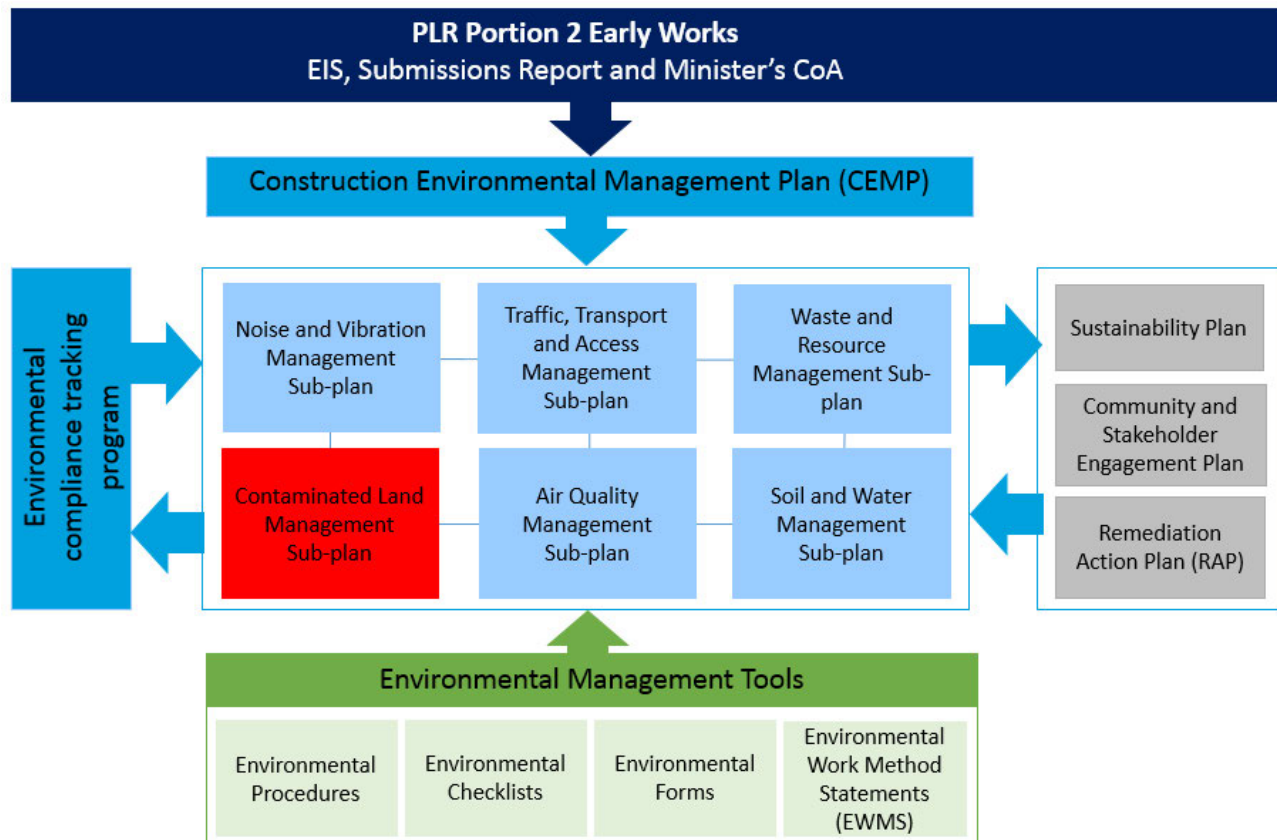


Figure 1-1: Portion 2 Early Works Environmental Management System and CEMP Context

1.2 Background and project description

Parramatta Light Rail is one of the NSW Government's major infrastructure projects being delivered to serve a growing Sydney population, particularly the population growth of the Parramatta Local Government Area (LGA).

PLR Stage 1 will connect Westmead to Carlingford via Parramatta Central Business District (CBD) and Camellia and is expected to be operational in 2023.

PLR Stage 1 project will link Parramatta's central business district (CBD) and train station to a number of key locations, including the following:

- Westmead Precinct.
- Parramatta North Growth Centre.
- The new Western Sydney Stadium.
- The Camellia Town Centre.
- The new Powerhouse Museum.
- Riverside Theatre arts and cultural precinct.
- The private and social housing redevelopment at Telopea.
- The Rosehill Gardens Racecourse.
- The three Western Sydney University campuses.

In summary, the key features of PLR Stage 1 project include:

- A new dual track light rail network of approximately 12 kilometres in length (including approximately seven kilometres within the existing road corridor and approximately five

kilometres within the existing Carlingford Line and Sandown Line, replacing current heavy rail services).

- A total of 16 stops that are fully accessible and integrated into the urban environment including a terminus stop at each end of Westmead and Carlingford.
- High frequency 'turn-up-and-go' services operating seven days a week from 5 am to 1 am. Weekday services will operate approximately every 7.5 minutes in the peak period between 7 am and 7 pm.
- Modern and comfortable air-conditioned light rail vehicles, nominally 45 metres long and driver-operated, each carrying up to 300 passengers.
- Intermodal interchanges with existing public transport services at Westmead terminus, Parramatta CBD and the Carlingford terminus.
- Creation of two light rail and pedestrian zones (no general vehicle access) within the Parramatta CBD along Church Street (generally between Market Street and Macquarie Street) and along Macquarie Street (generally between Horwood Place and Smith Street).
- A Stabling and Maintenance (SaM) Facility located in Camellia for light rail vehicles to be stabled, cleaned and maintained.
- New bridge structures along the alignment including over James Ruse Drive and Clay Cliff Creek, Parramatta River (near the Cumberland Hospital), Kissing Point Road and Vineyard Creek, Rydalmere.
- Alterations to the existing road network including line marking, additional traffic lanes and turning lanes, new traffic signals, and changes to traffic flows.
- Relocation and protection of existing utilities.
- Public domain and urban design works along the corridor and at Stop precincts.
- Closure of the heavy rail line between Carlingford and Clyde.
- Active transport corridors and additional urban design features along sections of the alignment and within Stop precincts.
- Integration with the Opal Electronic Ticketing System (ETS).
- Real time information in light rail vehicles and at Stops via visual displays and audio.

An overview of Parramatta Light Rail Stage 1 route is shown in Figure 1-1 of the CEMP.

1.2.1 Stabling and Maintenance Facility

As part of the development of the Project, the TfNSW owned land located at 6-8 Grand Avenue Camellia was identified as the preferred site for the stabling and maintenance facility (SaM Facility). The SaM Facility is being constructed on the former industrial site adjacent to the Rosehill Gardens Racecourse within the Rosehill and Camellia precinct (refer to **Figure 1-2**).

The SaM Facility would provide for the storage of light rail vehicles, maintenance, repair, refurbishing, upgrading, stabling, cleaning of light rail vehicles and a base for infrastructure maintenance activities and will operate 24 hours a day and 7 days a week.

Administration and staff facilities as well as the operations control centre for the light rail network will be located within the maintenance building. Parking for staff and visitors will be provided on site, including maintenance vehicle parking. An electrical substation will be located at the rear of the site to power the facility and light rail.

To accommodate the development of the stabling and maintenance facility, and reduce the potential for interaction with contaminated material during construction, the following activities will be undertaken as part of the enabling works:

- Importation and placement of appropriate fill material across the site to raise the surface finish level by about two metres;
- Installation of an appropriate capillary break to eliminate subsurface contamination migration;
- Installation of a passive vapour collection system and ventilation network to manage soil vapours;
- Installation of an appropriate vapour barrier and structural surface capping layer;
- The Temporary Works encompasses establishment of plant, equipment and facilities on the Site to support the delivery of the Works;
- The Enabling Works encompasses establishment and management of utilities and other below-ground infrastructure on the Site to support the delivery of the Works;
- Construction of a containment cell for the retention and containment of waste materials on-site;
- Implementation of Ground Improvement Works where required;
- Implementation of the monitoring and validation program; and
- Preparation of Stage 2 Site Validation Report and a Long Term Environmental Management Plan (LTEMP) to the satisfaction of the Site Auditor.

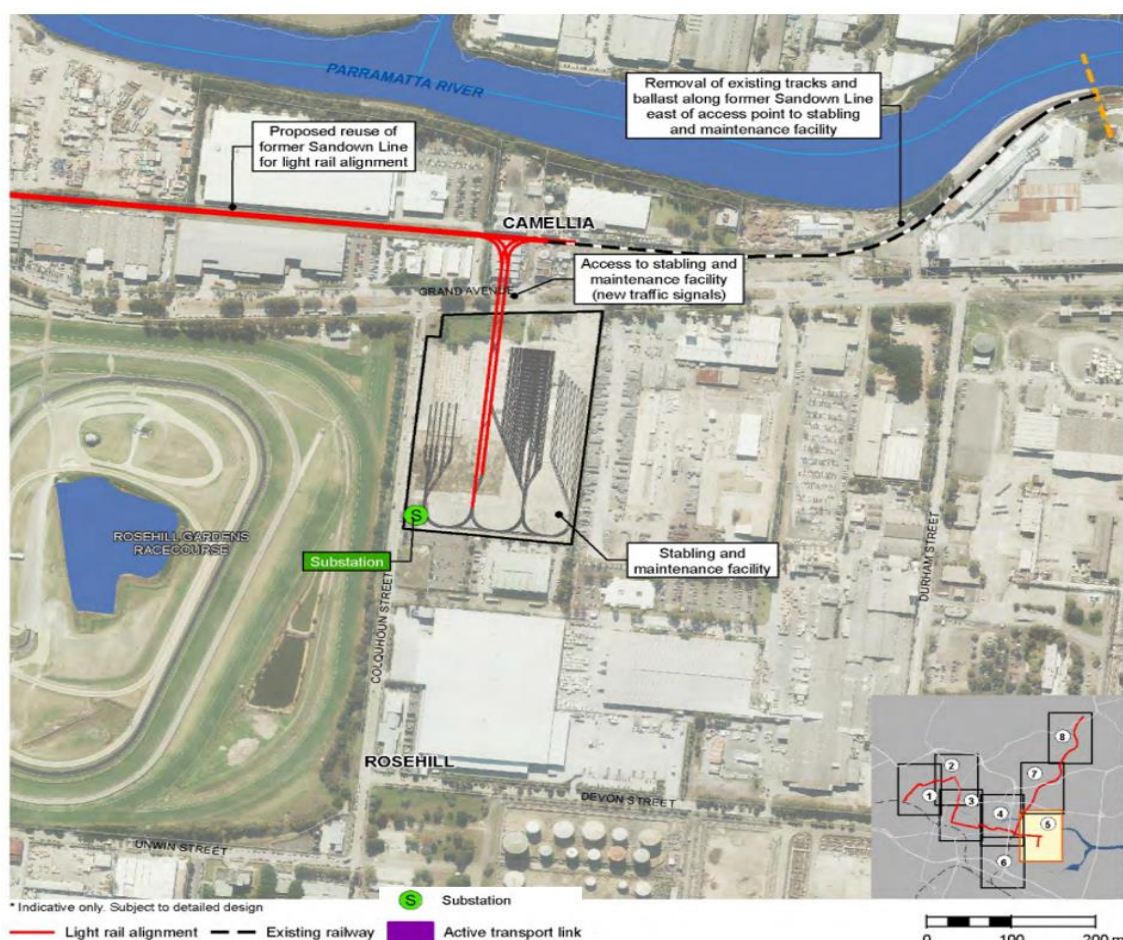


Figure 1-2: Portion 2 Early Works - SaM Facility location (Source: EIS Figure 6.2e)

1.2.2 Statutory Context

The Project is Critical State Significant Infrastructure (CSSI) pursuant to section 5.13 of the (EP&A Act). The Minister for Planning is the approval authority for the Project.

In accordance with section 5.22(2) of the EP&A Act, the environmental planning instruments that apply to the proposal are *State Environmental Planning Policy (Infrastructure) 2007* (insofar as it relates to the declaration of development that does not require consent) and *State Environmental Planning Policy (State and Regional Development) 2011* (as it pertains to the declaration of infrastructure as SSI). There are no other environmental planning instruments that substantially govern the carrying out of the Project.

The Portion 2 Early Works site has been subject to long term regulation by the NSW Environmental Protection Authority (EPA) under the Contaminated Land Management Act 1997 (CLM Act). The remediation strategy for the Site is detailed within the Remediation Action Plan (RAP) including the requirements of the CLM Act. The objective of the RAP is to document the preferred remediation option and outline the methodology for the installation, verification and validation of the preferred remediation option.

The Portion 2 Early Works will be undertaken to achieve Objective 3 of the RAP (as outlined in Section 7.1). Objective 3 is as follows:

Render the site suitable for commercial / industrial land use, specifically for the redevelopment of the site as the SaM facility for the PLR Project.

This objective is to be achieved by:

- Design and implementation of a capping system, appropriately integrated with the cut-off wall, and incorporating layered components appropriate to;
- Mitigate and manage soil vapour (both indoor and outdoor as dictated by the facility design) from VCHs;
- Create a physical barrier to prevent site users from accessing contaminated materials; and
- Prevent Cr (VI) wicking into future site structures infrastructure and paved surfaces.

The RAP has been reviewed and endorsed by a NSW EPA-accredited Site Auditor in accordance with the CLM Act.

Detailed environmental impact assessments have been carried out and approved by the Minister for Planning. The Planning Approval for the project is described below in [Section 1.2.3](#).

1.2.3 Parramatta Light Rail Planning Approval

An Environmental Impact Statement (EIS) for the project was placed on public exhibition between 23 August and 23 October 2017. During this period, government agencies, interested stakeholders and the community were invited to make written submissions on the project to the Department of Planning and Environment (DP&E). Following the conclusion of the public exhibition period, Transport for NSW prepared a Submissions Report and Preferred Infrastructure Report for the project to address the issues raised in community and stakeholder submissions, and to document a number of proposed design changes and additional investigations undertaken since exhibition of the EIS.

In May 2018, the Minister for Planning granted approval of the Project, under Section 115ZB of the EP&A Act. Following approval of the CSSI, a modification was assessed by the DP&E and subsequently approved on the 21st December 2018 under section 115ZI of the EP&A Act (Modification 1). Modification 2 was requested from DP&E and approved on the 25th January 2019.

The planning approval (Infrastructure approval SSI 8285) and related environmental assessment documents are located at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8285

1.3 Environmental management systems overview

The environmental management system overview is described in section 1.6 of the CEMP and is summarised in Figure 1-1.

2 Purpose and objectives

2.1 Purpose

The purpose of this plan is to provide the foundation for the management of contaminated land impacts in accordance with best practice and legal requirements (including environmental mitigation measures, controls, monitoring and reporting) during the construction phase of Portion 2 Early Works.

Specifically, this plan details the contaminated land management requirements that must be satisfied in order to demonstrate compliance with mitigation measure CM-2 of the Revised Environmental Mitigation and Management Measure along with CoA's outlined in **Table 3-2: Conditions of Approval relevant to the CLMP**.

Mitigation measures (specific to contaminated land) required to satisfy the CoA requirements are derived from the EIS and through risk assessment processes (refer [Section 3.2](#)) and included within this CLMP. The 'how addressed' column in condition ID C4 in the CEMP of the CoA outlines how EPO's and Mitigation Measures are to be achieved, refer to [Section 3.3](#) for relevant contamination land mitigation measures and controls and [Section 3.4](#) for environmental performance outcomes related to contaminated land.

Implementation of these measures is ensured through monitoring, training and competence, inspection, audit and reporting actions detailed in Sections [7.3](#), [7.4](#), [7.5](#) and [7.6](#) with the responsibilities for implementation identified in [Section 6](#). Continual improvement processes in relation to compliance with regulatory requirements are detailed in [Section 8](#).

Effective implementation of this Plan will assist the contractor and relevant sub-contractors to achieve compliance with necessary environmental regulatory and policy requirements in a systematic manner with an outcome of continual environmental management performance.

2.2 Objectives

The key objective and strategies of this CLMP is to ensure that contaminated land is managed appropriately throughout the delivery of Portion 2 Early Works. To achieve these objectives, the contractor will undertake the following:

- Detail relevant procedures for remediation activities, including handling, treatment and management, of existing contamination and contaminated materials during excavation to protect human health and the environment;
- Detail relevant procedures for the management of unexpected finds of contaminated materials that may be encountered onsite;
- Prevent migration of contamination off the site as a result of remediation activities, such as prevention of cross-contamination of clean materials;
- Implement appropriate management measures to protect the health of current and future users of the site and surrounding lands, and the local environment (including groundwater), both during and after completion of remediation works; and
- Ensure appropriate measures are implemented to address safeguards consistent with all relevant legislation and other requirements as described in [Section 3.1](#) of this Plan.

2.3 Targets

Contaminated land specific targets and performance criteria have been established for the management of contaminated land during Portion 2 Early Works. The targets and performance criteria for Portion 2 Early Works are as follows:

- Ensure full compliance with the relevant legislative requirements, CoA, REMMMs and NSW Auditor Guidelines;
- Implement proper management of contaminated sites, particularly during changes of land use to ensure public health and the environment are protected through implementation of the NSW EPA accredited Site Auditor endorsed RAP;
- Follow contamination control measures outlined in Section 7.1 of this plan and Section 7.3.6 of the AQMP to manage contaminants of concern, i.e. contaminants expected to be encountered on site;
- Ensure training on best practice contaminated land management is provided to all construction personnel through site inductions and targeted tool-box talks as required;
- Implement the Unexpected Finds Procedure (Appendix A) to manage potentially contaminated materials that are not expected at the site, but may be encountered during Portion 2 Early Works; and
- Demonstrate that contamination and contaminated materials have been appropriately managed throughout the works to the satisfaction of the Site Auditor.

3 Environmental Requirements

3.1 Relevant legislation and guidelines

3.1.1 Legislation

Legislation and regulations relevant to this CLMP includes:

- Environmental Planning and Assessment Act 1979 (EP&A Act)
- Contaminated Land Management Act (1997) (CLM Act)
- Protection of the Environment Operations Act (1997) (POEO Act)
- Protection of the Environment Operations (General) Regulation (2009)
- Protection of the Environment Operations (Waste) Regulation (2014)
- Work Health and Safety Act (2011) (WHS Act)
- Work Health and Safety Regulation (2017).

All legislation relevant to this CLMP is included in Appendix A1 of the CEMP.

3.1.2 Additional approvals, licences, permits and requirements

The site has a replacement groundwater treatment plant (GTP) and a Temporary Water Treatment Plant (TWTP). The GTP is designed to remove contaminants from groundwater pumped from the north-eastern boundary of the site. The implementation of the TWTP has increased capacity to treat and remove contaminants from water which accumulates on the site during construction of the capping profile. Post treatment from the GTP or TWTP, the water is discharged to trade waste under the licensed Trade Waste Agreement (TWA) Number 15831.

The site is registered on the EPA Section 58 Contaminated Sites Register. Voluntary Remediation Proposals and Management Orders relevant to this site is summarised in Table 3-1.

Table 3-1: Summary of Regulatory Notices, Declarations, Agreements and Approvals

Item	Description*
Voluntary Management Proposal (VMP) number 20181709	Dated 03 October 2018, issued under Section 17 of the <i>CLM Act 1997</i> . Subject: Remediation activities as outlined in <i>Remediation Action Plan for 6-10 Grand Avenue, Camellia (Golder Associates, 1775480-006-R-Rev0 RAP, 2 November 2017</i>
Voluntary Management Proposal (VMP) number 20191710	20/12/2019 Portion 2 Early Works remediation activities including key milestones and other actions. Teambinder ref; PLRP-TFNSW-VNT-CORR-001727
Sydney Trade Waste Agreement	Dated 01 July 2016, issued by Sydney Water under the <i>Sydney Water Act 1994 (NSW)</i> Subject: Consent to Discharge Industrial Trade Wastewater (Consent No. 15831)

Item	Description*
Sydney Trade Waste Agreement	Dated 08 May 2019, issued by Sydney Water under the <i>Sydney Water Act 1994 (NSW)</i> Subject: Consent to Discharge Industrial Trade Wastewater (Consent No. 15831)
Sydney Trade Waste Agreement	Dated 19 August 2020, issued by Sydney Water under the <i>Sydney Water Act 1994 (NSW)</i> Subject: Consent to Discharge Industrial Trade Wastewater (Consent No. 15831)

*(refer to Appendix B for locations of areas specified in Table 3-1)

3.1.3 Guidelines and standards

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

- National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM), Schedule B5a, Guideline on Ecological Risk Assessment.
- How to Safely Remove Asbestos Code of Practice (SafeWork NSW, 2016).
- Waste Classification Guidelines – Part 1: Classification of waste (NSW EPA 2014).
- NSW Environment Protection Authority (EPA) Contaminated Land Management – Guidelines for the NSW Site Auditor Scheme (3rd edition) (2017).
- NSW Department of Planning State Environmental Planning Policy 55 – Remediation of Land.
- Department of Urban Affairs and Planning and Environment Protection Authority Planning Guidelines SEPP 55 – Remediation of Land (1998).
- 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 OEH (2009).

3.2 Minister's Conditions of Approval

The CoAs relevant to this Plan are listed in **Table 3-** below. A cross reference is also included to indicate where the condition is addressed in this Plan or other Project management documents.

Table 3-2: Conditions of Approval relevant to the CLMP

CoA No.	Condition Requirements	Document Reference	How Addressed
E118	Notification must be provided and, where relevant, approvals must be sought directly from the EPA before commencement of any works which will intersect or disturb the surface of sites which are regulated by the EPA under the CLM Act.	Section 7.1 of CLMP	<p>A Voluntary Management Proposal (VMP) has previously been endorsed by the NSW EPA to carry out the earlier remediation actions, works and other components relating to remediation, as set out in: Remediation Action Plan for 6-10 Grand Avenue, Camellia (Golder Associates, 1775480-006-R-Rev0 RAP, 2 November 2017).</p> <p>TfNSW has been granted a second VMP endorsed on the 20/12/2019 which reflects updates in Portion 2 Early Works, principal features of the proposal, key milestones and other actions.</p>
E119	Before commencement of any activities that would result in the disturbance of land and/or soil in Areas of Environmental Interest (AEI) identified as having a high risk of contamination, or identified as medium risk subject to further desktop assessment as specified in the documents listed in Condition A1, a Site Contamination Report must be prepared by a suitably qualified person(s) in accordance with the requirements of the CLM Act and associated guidelines. The Site Contamination Report must outline the potential contamination risks from the AEIs to human health and receiving waterways and detail, where relevant, whether the land is suitable (for the intended land use) or can be made suitable through remediation. For AEIs where there is insufficient information and data available to draw such	Section 4.4 of CLMP	<p>A Remediation Action Plan (RAP) for the project has been prepared by Golder Associates in 2017. This details how the environmental and human health risks will be managed during the disturbance and remediation of the site, including activities with contaminated soil or groundwater.</p> <p>A Site Contamination Report, prepared by Golder Associates in 2015 (Golder, 2015) and Data Gap Assessment, reported by Coffey in 2017 (Coffey, May 2018) have also been prepared. Combined they provide further details with regards to potential contamination risks from the AEIs to human health and receiving waterways and details that this site can be made suitable for land use through remediation. Portion 1 and Portion 2 Early Works are</p>

CoA No.	Condition Requirements	Document Reference	How Addressed
	conclusions, the Site Contamination Report must also detail the outcomes of Phase 2 site contamination investigations within those AEIs.		part of the remediation to make this site suitable for the intended use of the SaM facility. Note; A RAP had been prepared by the previous site owner which was superseded by the RAP prepared by Golder Associates 2017.
E120	For those AEIs where a Site Contamination Report is to be prepared in accordance with Condition E119, 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 must be identified in the Site Contamination Report and incorporated into the CEMP or relevant sub-plan.	Section 4.4 of CLMP	The Site Contamination Report and Data Gap Assessment have identified that the site requires further remediation works prior to land use as the future stabling and maintenance (SaM) facility. A Remediation Action Plan (RAP (Nov 2017) has been prepared for this site. It includes how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater in disturbed areas. The RAP was endorsed by the NSW EPA accredited Site Auditor prior to commencing early works remediation activities on the site.
E121	For those AEIs where a Site Contamination Report concludes the site can be made suitable for its intended land use subject to remediation, the Site Contamination Report must include a Remediation Action Plan to address disturbed areas, and how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater.	Section 7.5.1 of CLMP	The RAP (Nov 2017) has been prepared for this site. It includes how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater in disturbed areas. The RAP was endorsed by the NSW EPA accredited Site Auditor prior to commencing early works remediation activities on the site.
E122	For those AEIs where remediation is required, the Site Contamination Report and Remediation Action Plan must be accompanied by a Site Audit Statement(s), prepared by a NSW EPA Accredited Site Auditor under the CLM Act, verifying that the disturbed area has been or can be remediated to a standard consistent with the intended land use. Where land is remediated, a final Site Audit Statement(s) must be prepared by an accredited Site Auditor, certifying that the contaminated and disturbed areas have	Section 7.5.2 of CLMP	A Site Audit of the remediation works shall be carried out by a NSW EPA accredited Site Auditor in order to prepare a Site Audit Statement (SAS). The SAS shall confirm that the site has been remediated to a condition that renders it suitable for the proposed PLR land use.

CoA No.	Condition Requirements	Document Reference	How Addressed
	been remediated to a standard consistent with the intended land use.		
E123	For those AEIs where remediation is required, the land must not be used for the purpose approved under the terms of this approval until a Site Audit Statement determines that the land is suitable for that purpose and any conditions on the Site Audit Statement have been complied with.	Section 7.5.2 of CLMP	TheSaM facility shall not commence operations and maintenance activities until the Site Auditor has issued a Site Audit Statement. The Site Audit Statement shall determine the suitability of the site, along with any other ongoing management conditions.
E124	A copy of the final Site Audit Statement must be submitted to the Secretary and relevant Council no later than one month before the commencement of CSSI operations.	Not triggered by the Enabling Work Stage – Package 3 as per Staging Report (Appendix C) Package 3: Portion 2 Early Works (PLR-VNT-SAM-PE-RPT-000018)	
E125	An Unexpected Contaminated Land and Asbestos Finds Procedure must be prepared and must be implemented should unexpected contaminated land or asbestos be excavated or otherwise discovered during construction. This can be provided as part of the CEMP or relevant sub-plan.	Appendix A of CLMP	An Unexpected Finds Procedure has been prepared and is included as Appendix A of this CLMP. The Unexpected Finds Procedure will be implemented in the event of unexpected discovery of potential contamination within the Portion 2 Early Works project site.
E126	The Unexpected Contaminated Land and Asbestos Finds Procedure must be implemented throughout construction.	Appendix A of CLMP	Unexpected Finds Procedure will be implemented throughout the duration of the construction phase of the Portion 2 Early Works.
E131	Asbestos or asbestos-contaminated materials (ACM) uncovered during demolition and construction activities of the CSSI must be strictly managed in accordance with the requirements under the Protection of the Environment Operations (Waste) Regulation 2014 and any guidelines or requirements in force at the date of this approval and issued by the EPA in relation to those materials.	Appendix A of CLMP	In the event of unexpected discovery of asbestos or ACM during Portion 2 Early Works, the Unexpected Finds Procedure will be implemented and the identified material will be managed in accordance with the requirements of the CEMP and associated sub-plans. In the event material is unable to be retained on-site, the materials shall be disposed of in accordance <i>Protection of the Environment Operations (Waste) Regulation 2014</i> , the Code of Practice for How to Safely Remove Asbestos (2016) or any other applicable guidelines or requirements.

3.3 Revised Environmental Mitigation and Management Measures

Relevant REMMMs are listed in **Table 3-** below. This includes reference to required outcomes, the timing of when the commitment applies, relevant documents or sections of the environmental assessment influencing the outcome and implementation.

Table 3-3: Revised Environmental mitigation and management measures relevant to this CLMP

Ref #	Commitment	Timing	CLMP Reference	How Addressed
CM-1	<p>During detailed design, a desktop risk assessment would be carried out for the following Areas of Environmental Interest (AEI) to confirm high or medium risk of contamination:</p> <ul style="list-style-type: none"> 6 Grand Avenue, Rosehill (former Akzo Nobel site) (AEI 27). <p>This would involve a review of available data, collaboration with stakeholders and consideration of the extent of disturbance by the project in the vicinity of the AEI. Based on the results of this assessment:</p> <ul style="list-style-type: none"> Mitigation and management measure CM-2 would apply to AEIs classified as high risk Mitigation CM-4 would apply to AEIs classified as medium risk. 	Pre-construction	Technical Paper 8, Volume 4 - <i>Contaminated Land Assessment</i> .	The EIS initially classified Portion 2 Early Works site as a medium risk site. However, remediation works are being carried out in accordance with a Remediation Action Plan, endorsed by a NSW EPA Accredited Site Auditor. Therefore, REMMM CM-2 will be applied to this site.

Ref #	Commitment	Timing	CLMP Reference	How Addressed
CM-2	<p>Prior to the commencement of construction in the vicinity of these sites, site investigations would be carried out at the following high risk AEI:</p> <ul style="list-style-type: none"> • Former gas works at Queens Wharf Reserve (AEI 15) • 13A Grand Avenue, Camellia (AEI 21). <p>The results from the site investigations would be assessed against criteria contained within the National Environment Protection (Assessment of Site Contamination) Measure 1999 (2013) to determine any need for remediation.</p> <p>Remediation works would be performed in accordance with the hierarchy of preferred strategies in the Guidelines for the NSW Site Auditor Scheme (DECCW 2006). Where practical, remediation works would be integrated with excavation and development</p>	Pre-construction	Section 7.6 of CLMP	The project site is noted to contain contamination present and is the subject of remediation activities to cap and contain contamination for future work activities. Sampling and monitoring will be carried out in accordance with a Remediation Works Validation Plan, endorsed by a NSW EPA Accredited Site Auditor. It should be noted that remediation activities under the RAP have already commenced during previous remediation activities for the site (Portion 1 works).

Ref #	Commitment	Timing	CLMP Reference	How Addressed
	works performed during construction.			
CM-3	<p>For low and medium risk sites, environmental management measures would be applied as detailed in a Construction Contaminated Land Management Plan (CCLMP), as a sub-plan to the CEMP.</p> <p>The measures would be tailored to address any specific locations where contamination is identified through the current contaminated land investigations. This includes worker health and safety measures.</p>	Pre-construction	This CLMP	This CLMP has been prepared as a part of the CEMP and it details how the environmental and human health risks will be managed during the disturbance, remediation and/or removal of contaminated soil or groundwater in disturbed areas in accordance with the Remediation Action Plan (RAP) that has already been prepared. It should be noted that some of the requirements under the RAP have already been undertaken during the previous remediation activities (Portion 1 works).
CM-4	Visual inspections and monitoring would be performed during excavation activities at medium risk AEIs to identify potential indicators of contamination. If suspected contamination is encountered, the materials would be subject to sampling and analysis to determine management	Pre-construction (during Portion 1 works) and during construction (of Portion 2 Early Works)	Section 7.4 of CLMP	The project site is noted to contain contamination present and is the subject of remediation activities to cap and contain contamination for future work activities. Sampling and monitoring will be carried out in accordance with a Remediation Works Validation Plan, endorsed by a NSW EPA Accredited Site Auditor. It should be noted that remediation activities under the RAP have already commenced during previous remediation activities for the site (Portion 1 works).

Ref #	Commitment	Timing	CLMP Reference	How Addressed
	requirements and suitability for reuse, recycling or remediation.			
CM-6	An unexpected finds procedure would be developed and implemented as part of the project CLMP, outlining a set of potential contamination issues which could be encountered, and detailing the corrective actions to be implemented.	Pre-construction	Appendix A of CLMP	An Unexpected Finds Procedure has been prepared and is included as Appendix A of this CLMP. The Unexpected Finds Procedure details the management requirements and controls to be implemented in the event of unexpected discovery of known or potential contaminated materials.
WM-5	The disturbance, movement and disposal of asbestos containing materials (ACM) would be carried out in accordance with the Work Health and Safety Regulation 2011 and other relevant guidelines.	During construction	Appendix A of CLMP	An Asbestos Removal Control Plan (ARCP) shall be prepared in accordance with the Code of Practice for How to Safely Remove Asbestos (2016). In the event of unexpected discovery of ACM during Portion 2 Early Works, the Unexpected Finds Procedure and the ARCP will be implemented. Handling of ACM will be carried out in accordance with the Work Health and Safety Regulation 2017 and other relevant guidelines.

3.4 Environmental Performance Outcomes

Relevant EPOs are listed in Table 3- below. This includes reference to required outcomes, the timing of when the commitment applies relevant documents or sections of the environmental assessment influencing the outcome and implementation.

Table 3-4: Environmental Performance Outcomes relevant to this CLMP

ID Ref#	Environmental Performance Outcome	Timing	CLMP reference	How Addressed
EPO-SG-2	There would be no impacts on aquatic environments associated with the disturbance of ASS during construction.	During construction	Section 4.1 of CLMP	The acid sulfate soils (ASS) analyses in the EIS indicated that both actual and potential ASS are unlikely to occur within the Portion 2 Early Works site. In addition, ASS or potential acid sulphate soils (PASS) have not been identified during remediation activities to date. Therefore ASS impacts on aquatic environments associated with the Portion 2 Early Works is not anticipated.
EPO-SG-3	Any contamination on project sites would be remediated to suit future land use.	Pre-construction (Portion 1) and construction of Portion 2 Early Works	Section 7.5.1 of CLMP	<p>A Remediation Action Plan (RAP) (Golder 2017) has been developed to establish remediation objectives and Portion 2 Early Works project site will be remediated prior to the intended construction of SaM facility.</p> <p>Note; A RAP had been prepared by the previous owner which was superseded by the RAP prepared by Golder Associates 2017.</p>

4 Existing Environment

This section describes the existing environment of the Project, specific to contaminated land. It also summarises previous contaminated land investigations undertaken to date and outlines further investigation required. The key reference document is the Remediation Action Plan (RAP) (Nov 2017) and the addendum to the RAP (7 May 2019). Further details of contaminated land can be found in the Section 10.7 of the EIS, Technical Paper 8, Volume 4 - *Contaminated Land Assessment*. The Portion 2 Early Works site is a declared remediation site as per the provisions of the *Contaminated Land Management (CLM) Act*.

4.1 Site geology and acid sulphate soils

The project corridor consists of a predominantly undulating landscape, with generally flat-lying area. The Portion 2 Early Works site is an area mapped as manmade fill mixed with older estuarine deposits as shown in Figure 4-1. The acid sulfate soils (ASS) assessment in the EIS indicates that both actual and potential ASS are unlikely to occur within the Portion 2 Early Works Site. The ASS mapping indicates that the Portion 2 Early Works site occupies an area that is overlain by “Disturbed Terrain” (fill material); therefore, overall risk of disturbing ASS is considered to be low if not nil (Refer **Figure 4-2**).

The former roadway pavements through the Portion 2 Early Works Site comprise asphalt and concrete. The former building footprint pavements comprise concrete. The condition of the pavements varies from reasonable to poor (with multiple fractures). The residual building slabs are generally elevated above the level of the surrounding site and a flooding retention basin in the southeast corner of the site creates a local depression.

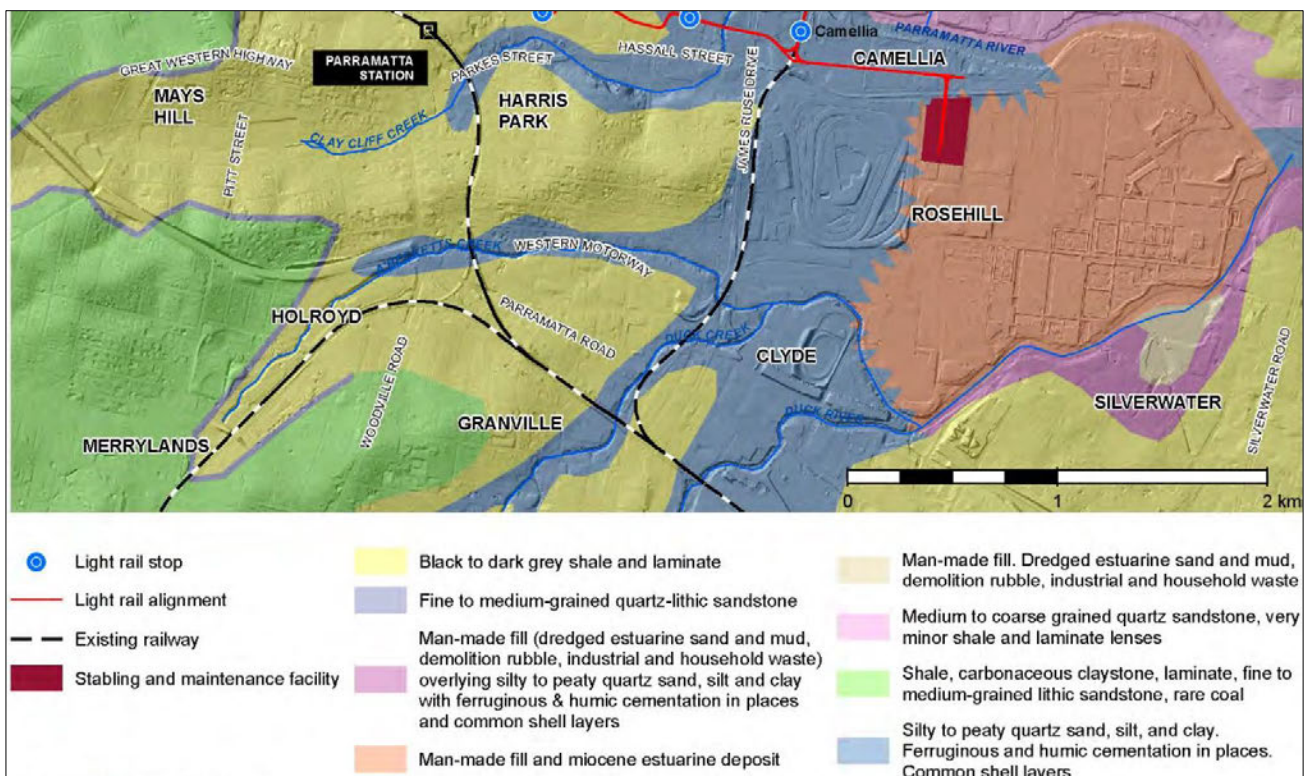


Figure 4-1: Site geology (Source: EIS Figure 10.5)

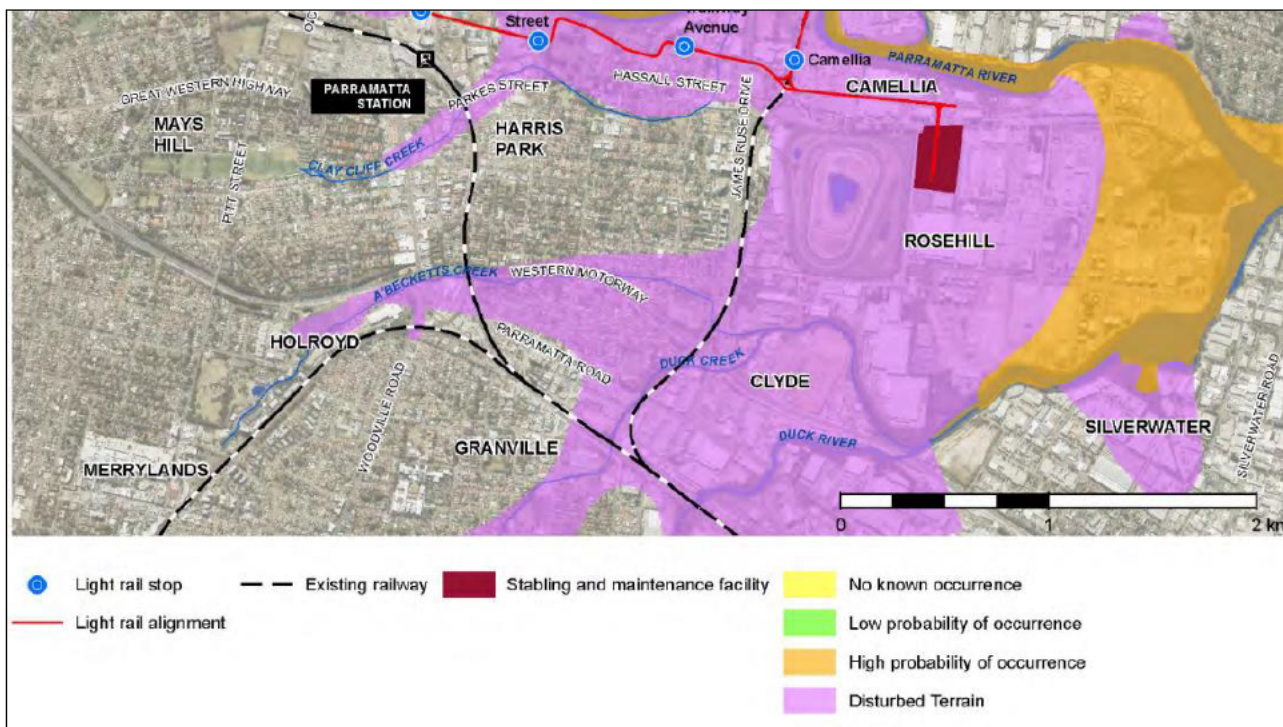


Figure 4-2: Existing acid sulfate soils (Source: EIS Figure 10.7)

4.2 Contamination

A search of the NSW Environment Protection Authority (EPA) record of notices under section 58 of the CLM Act and notifications under section 60 of the CLM Act was carried out in April 2017 as part of the preparation of the EIS.

The search identified that the location of the Portion 2 Early Works Site was formerly occupied by a chemical manufacturing process facility and was listed under section 60 of the CLM Act. A summary of the findings presented in the EIS regarding the Portion 2 Early Works site is presented below in Table 4-1.

Table 4-1: CLM Act Notified Site

Site Name	Site Address	Notified activity	Site status	Location in relation to the Project
Former Akzo Nobel site	6 Grand Avenue, Camellia	Chemical industry	Regulated under CLM Act	Within the project disturbance footprint (the stabling and maintenance facility in the Rosehill and Camellia precinct).

The NSW Department of Planning and Environment (DP&E) published the *Camellia Precinct Land Use and Infrastructure Analysis* (2015) which includes a high level contamination review of the Camellia industrial area, including land within and adjacent to the Rosehill and Camellia precinct. The report identified localised soil and groundwater contamination associated with the history of industrial activities within the area, with a range of contaminants identified including asbestos, hexavalent chromium, petroleum hydrocarbons, chlorinated hydrocarbons and arsenic. The report also identified the potential for more widespread contamination to be present across the precinct,

including asbestos and hexavalent chromium. The majority of the area assessed as part of the report is identified as having a medium to high risk of being contaminated.

Remediation Works have been separated into two (2) main portions. The first portion was carried out prior to commencement of Portion 2 Early Works, these remediation works involved a combination of physical containment and physical separation components intended to mitigate off-site migration of contaminants and minimise and control receptor exposure pathways. Installation of a hydraulic barrier wall adjacent to the site perimeter to prevent the groundwater migration to and from the site. A key objective of Portion 2 Early Works is to install an integrated capping system across the surface of the site to mitigate soil vapour exposure pathways and hexavalent chromium wicking processes, therefore to physically separate future site users from remnant contamination. The integrated capping system, incorporating a passive vapour collection system and ventilation network, will be designed to tie into the hydraulic barrier wall.

4.3 Site History

The history of the development of the site is presented in detail within the RAP (Golder, 2017). The site was occupied by a series of industrial operations since the 1940s. The following chronology has been summarised in Table 4-2 below for the Portion 2 Early Works site.

Table 4-2: Summary of Site History

Year	Description
Prior to 1940s	The site was undeveloped but appeared to contain a horse trotting track, presumably associated with the adjacent Rosehill Racecourse.
1940s – 1970s	Chrome manufacturing plant was operated on-site.
1960s – 1995	Chlorofluorocarbons (CFC) manufacturing was operated on-site. Production ceased in 1995.
2009 – 2014	Various light industrial and warehouse activities.
2014-2017	Demolition of all structures was undertaken by 2015 (the Endeavour Energy substation was subsequently decommissioned and in 2017), with the exception of Groundwater Treatment Plant & the air raid shelter.
2018-2019	Portion 1 Remediation activities to install a hydraulic barrier wall to prevent off-site groundwater migration, demolition of redundant infrastructure and structures and installation of a new groundwater treatment plant.

The site previously comprised three (3) main areas:

1. North West Sector - comprising former chemical storage and offices;
2. North East Sector - comprising a former chromium ore processing plant; and
3. Pacific Chemical Industries (PCI) Sector - in the south of the site, comprising a former fluorocarbon production plant.

These areas, together with former buildings and infrastructure are shown on Appendix B for reference.

4.4 Previous investigations and Site Investigation Report

A number of contamination investigations, remedial action plans, voluntary remediation proposals, site remediation and site audits have been undertaken at the site. This includes investigations to inform the Site Contamination Report, which satisfies the requirements of CoA E119. “*Project Ruby: Summary Site Contamination Report; report to Akzo Nobel*” was prepared by Golder Associates in 2015 (Golder, 2015). A Data Gap Assessment, reported by Coffey in 2017 (Coffey, May 2018) has also been prepared. Combined they provide further details with regards to potential contamination risks from the AEIs to human health and receiving waterways and details that this site can be made suitable for land use through remediation. Portion 2 Early Works is a stage of remediation activities that are being performed to make this site suitable for the intended use of the SaM facility.

Table 4- sets out a summary of key findings of investigations undertaken.

Table 4-3: Previous key investigations and findings

Year	Report Title	Location	Outcome
1988	<i>Geochemical site characterisation</i>	Former chromium ore processing plant	Elevated chromium in soil.
1989	<i>Environmental remediation study</i>	Former chromium ore processing plant	Elevated total and leachable chromium and high levels of chromium and sulphate.
1991	<i>Completion report site rehabilitation project, Akzo Chemicals Limited, Camellia</i>	Former chromium ore processing plant	Demolition of the recycled chromium ore silo. Installation of vertical subsurface wall enclosing chromium contaminated fill and capping with concrete. Installation of stormwater drain system. Construction of chromium treatment plant.
1994	<i>Remedial investigation/feasibility study, Pacific Chemical Industries, Colquhoun Rd, Camellia, NSW</i>	Pacific Chemical Industries portion	Shallow fill – elevated chromium, lead, zinc and volatile hydrocarbons. Shallow groundwater – elevated chromium, lead, zinc, copper and low concentrations of volatile hydrocarbons. Deep groundwater – low concentrations of lead and zinc (no volatile hydrocarbons or chromium). The settling ponds – elevated volatile hydrocarbons.
1995	<i>Remedial investigation/feasibility study, northwest sector for Akzo Nobel Chemicals Ltd</i>	North west portion of the site	Southern end of the western warehouse – elevated lead, zinc, arsenic, copper and low levels of volatile hydrocarbons. Ground water - Elevated chromium, lead, zinc and copper. Very high levels of chloroform and carbon tetrachloride.
1995	<i>Groundwater investigation for EPA sign-off</i>	North west site boundary	No impact by chromium.
1996	<i>Investigations of deep groundwater</i>	entire site and off site for VCHs	Groundwater – elevated carbon tetrachloride and chloroform levels, minor levels of dichloromethane and hexachlorobenzene.

Year	Report Title	Location	Outcome
	<i>contamination, Pacific Chemical Industries, Camellia, NSW</i>		
1997	<i>Completion report, containment remediation, Akzo Nobel Chemicals, Camellia</i>	Entire site	Installation of a cut off wall around perimeter of the site and capping unsealed areas with concrete. Development of a stormwater system.
1997	<i>Post demolition investigation and trial programme, deep groundwater remediation project</i>	Pacific Chemical Industries portion of site	Development of the deep groundwater interception and source area. Remediation schemes.
1998	<i>Remedial investigation – chromium in deep groundwater</i>	North west site boundary	Groundwater – elevated chromium.
1998	<i>Remedial investigation – Stage 2 chromium in deep groundwater</i>	North west site boundary	Chromium migration offsite.
1998	<i>Site contamination audit, 6 Grand Avenue, Camellia for Akzo Nobel Chemicals Ltd</i>		Review of previous investigations.
2001	<i>Groundwater VCH remediation programme</i>	VCHs across site and off site	On-site - decreased volatile chlorinated hydrocarbons (VCHs). Off-site - no VCHs, low concentrations of trichloroethane and tetrachloroethane (in one bore) and low concentration of cis-1,2-Dichloroethane (in one bore).
2002	<i>Annual groundwater monitoring, volatile chlorinated hydrocarbons remediation system</i>	VCHs across site and off site	On-site - increased VCH levels. Off-site - no chemicals of concern.
2003	<i>Annual groundwater monitoring, volatile chlorinated hydrocarbons remediation system</i>	VCHs across site and off site	On-site – stable (lower) VCH levels except for one borehole (increased VCH). Off-site - no chemicals with exceeded limits.

Year	Report Title	Location	Outcome
2004	<i>Annual groundwater monitoring, volatile chlorinated hydrocarbons remediation system</i>	VCHs across site and off site	On-site - stable VCH levels. Off-site - no chemicals with exceeded limits.
2006	<i>Targeted Soil and Groundwater Investigations, 6 Grand Avenue, Camellia, NSW</i>	Across site	VCH contamination in the south western (source area) section had moved along north. East and south east direction and VCH contamination in the north eastern corner had flowed in south west direction. Prevention of offsite migration by perimeter pumping system and source recovery system. No concern of dissolved hexavalent-chromium.
2006	<i>Revised Soil-Vapour Assessment for 6-10 Grand Avenue, Camellia, NSW</i>	Across site	Soil Vapour Assessment
2009	<i>Addendum to the Remedial Action Plan for the Chromium Liquor Residue Ponds at 6 Grand Avenue, Camellia, NSW</i>	Chromium Liquor Residue Ponds	Analytical results were less than the criteria for hexavalent-chromium in soil. No concentrations above criteria for VCH.
2009	<i>Investigation of Cr-VI Impact on Fill Material Surrounding a Stormwater Pipe Near the Eastern Boundary of 6 Grand Avenue, Camellia, NSW</i>	Surrounding stormwater pipe near eastern boundary	Fill material – above criteria for hexavalent-chromium. No other organic or inorganic analytes were detected above criteria.
2009	<i>Targeted Investigation of Volatile Chlorinated Hydrocarbon Impacts to the North of Warehouse No. 5 at 6 Grand Avenue, Camellia, NSW</i>	North of warehouse No.5	VCH was identified within fill and natural clay at concentrations above site adopted guidelines. PCE (tetrachloroethylene) impacts in groundwater were identified above site adopted criteria.

Year	Report Title	Location	Outcome
2010	<i>Report on the Investigation of Chromium Impacts and Possible Remedial Options for the Chromium Liquor Residue Ponds at 6 Grand Avenue, Camellia, NSW</i>	Surrounding Chromium Liquor Ponds	<p>Southern setting pond – hexavalent-chromium lower than the criteria and minor impacts to perched groundwater.</p> <p>Eastern Chromium Liquor Residue Pond – below hexavalent-chromium site adopted criteria and dissolved hexavalent-chromium was detected in perched groundwater.</p> <p>Western Chromium Liquor Residue Pond – higher hexavalent-chromium than site adopted criteria for both soil and groundwater.</p>
2010	<i>Targeted Investigation of Volatile Chlorinated Hydrocarbon Impacts in the Area of TPSP19 at 6 Grand Avenue, Camellia, NSW</i>	east and south of test pit location TPSP19	Volatile Chlorinated Hydrocarbon groundwater impact testing
2010	<i>Targeted Investigation of Off-Site Hexavalent Chromium Impacts to the North of the Site at 6 Grand Avenue, Camellia, NSW</i>	North of site (offsite)	Hexavalent chromium groundwater impact testing
2015	<i>Project Ruby: Summary Site Contamination Report; report to Akzo Nobel</i>	Across Site	<p>Soil is impacted with hexavalent-chromium to <2 mbgl.</p> <p>Soil is impacted with VHCs at various locations on the Site.</p> <p>Groundwater beneath parts of the Site is impacted with hexavalent-chromium and selected VCHs (chloroform, carbon tetrachloride and tetrachloroethene) at concentrations exceeding the Site adopted criteria.</p> <p>Positive soil vapour impacts.</p>
2017-2018	<i>Contamination Data Gap Assessment for the Proposed Stabling and Maintenance (SaM) Facility</i>	Across Site	Additional contamination and geotechnical investigations

Year	Report Title	Location	Outcome
2019	<i>Groundwater Flow Model – Parramatta Light Rail, Camellia Stabling Facility</i>	Across Site	Numerical groundwater modelling of the site, with the HBW and various concept designs of the cover system.

4.5 Previous remediation

Due to past industrial activities, the site has been impacted by a range of contaminants primarily hexavalent chromium, volatile chlorinated hydrocarbons (VCH) and asbestos. Remediation works have been undertaken for selected areas of the Portion 2 Early Works site as summarised in Table 4-4 below.

Table 4-4: Summary of previous remediation

Year	Area	Remediation action
1991	Around the Chrome Plant – Eastern part of the site, except for the southern end	Construction of groundwater cut-off wall around Chrome Plant Capping of some unpaved areas Installation of localised groundwater treatment system
1996-1997	Remainder of the site (after 1991 remediation action)	Extension of groundwater cut-off wall
1997-1999	Across site	Installation and operation of VCH groundwater remediation system
2009-2010	Area A*	Construction of contiguous pile wall along the northern and eastern boundary of Area A Excavation of Area A to bedrock Backfilling of Area A after treatment
2009-2010	Area B*	Excavation and backfilling (after treatment) of Area B Installation of groundwater abstraction/injection system
2010	Western Chromium Liquor Residue Pond (WCLRP)	Remediation of WCLRP
2018-2019	Across site	Installation of hydraulic barrier wall to isolate groundwater within the site Install a replacement groundwater treatment system Demolish redundant infrastructure and structures

*Refer to Appendix B for locations of areas specified in Table 4-4

5 Environmental aspects and impacts

5.1 Construction activities

Key aspects of the Portion 2 Early Works that could result in adverse impacts to soils and water include:

- Early works including utility adjustment, site access provisions, property adjustments;
- Contaminated earthworks;
- Ongoing treatment of contaminated water;
- Investigative drilling and geotechnical assessment;
- Demolition of redundant concrete hardstand; and
- Installation of an on-site containment berm.

Refer to Appendix A2 of the CEMP – Environmental Risks Register.

5.2 Impacts

The potential for contaminated land disturbance and impacts will depend on a number of factors. Primarily impacts will be dependent on the nature, extent and magnitude of construction activities and their interaction with known and potential contaminated land sources. Potential impacts attributable to Portion 2 Early Works construction might include:

- Exposure of contaminated soils and/or groundwater to humans;
- Mobilisation, migration and exposure of hexavalent chromium (Cr(VI)) contaminated dust and groundwater
- Release of asbestos fibres;
- Affect surrounding environment from change to groundwater subsurface flow;
- Release of odours from contaminated materials; and
- Disturbance of unidentified contaminated land and subsequent generation of contaminated waste and runoff.

Relevant aspects and the potential for related impacts have been considered in a risk assessment at Appendix A2 of the CEMP. [Section 6](#) provides a suite of mitigation measures that will be implemented to avoid or minimise those impacts specifically relating to contamination.

6 Environmental control measures

Specific environmental control measures and requirements to meet the objectives of this CLMP are detailed in Table 6-.

Table 6-1: Contaminated land management mitigation measures

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
CL1	Prior to commencement of any works which may intersect and/or disturb the areas regulated by EPA under the CLM Act, notification to EPA will be provided and approvals will be obtained when required.	CLM Act	Pre-construction	Environment & Hygiene Manager	CoA E118
CL2	Performance outcomes, commitments and mitigation measures as specified in CEMP relevant to contaminated land and in this CLMP will be implemented and achieved during construction	CEMP CLMP	During construction	Project Manager Environment & Hygiene Manager Site Supervisor	CoA A1, C1, C2 REMMM GEN-1 EPO-SG-3
CL3	Erosion and sediment controls will be implemented prior to commencement of Portion 2 Early Works to minimise the risk of sedimentation.	Soil and Water Management Plan Erosion and Sediment Control Plan	During construction	Environment & Hygiene Manager Site Supervisor	CoA E111 REMMM SG-3, HY-6 EPO-SG-1
CL4	Project induction and targeted toolbox talks will include details of known contaminated areas and the procedure to follow if contamination is suspected.	CEMP Site induction Unexpected Finds Procedure Environmental control maps	During construction	Environment & Hygiene Manager Site Supervisor	CoA C2

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
CL5	Areas of known or likely contaminated land will be assessed and managed in accordance with environmental requirements as stated in Section 3 and Section 7.1.	RAP CLMP Environmental control map	During construction	Environment & Hygiene Manager	CoA E121, E122 REMMM CM-1, CM-2, CM-3, CM-4
CL6	Any recycled material delivered on site will be spot-checked for potentially contaminated material prior to use. If suspected contaminated material is encountered, Unexpected Finds Procedure will be implemented.	Unexpected Finds Procedure	During construction	Environment & Hygiene Manager Site Supervisor	CoA E126 REMMM CM-2, CM-3, CM-4, CM-6
CL7	Soil stockpiling will be designed and managed in accordance with the Landcom Blue Book - <i>Managing Urban Stormwater: Soils and Construction</i> , to minimise the potential risks associated with the potentially contaminated soil.	Soil and Water Management Sub-plan Environmental control map	During construction	Environment & Hygiene Manager Design Manager Site Supervisor	REMMM CM-2, CM-3, SG-3
CL8	Follow the Unexpected Finds Procedure if previously unknown contaminated material is encountered or exposed. Where potentially contaminated material is discovered, notification to relevant Project and agency representatives will be undertaken.	Site induction Unexpected Finds Procedure	During construction	Environment & Hygiene Manager Site Supervisor	CoA E125, E126 REMMM CM-2, CM-3, CM-4, CM-6
CL9	Removal of waste from Portion 2 Early Works will be performed in accordance with the Waste and Resource Management Plan and must be classified in accordance with the NSW EPA Waste Classification Guidelines (2014)	Waste and Resource Management Plan NSW EPA Waste Classification Guidelines (2014)	During construction	Environment & Hygiene Manager	CoA E131 REMMM CM-2, CM-3, WM-5, HY-6

7 Compliance management

7.1 Site Management

All known contaminated areas will be managed in accordance with this Plan and Section 7 of the Air Quality Management Plan (AQMP). Environmental control measures detailed in Section 6 will be implemented throughout the duration of the Portion 2 Early Works. Key control measures are as follows;

- Use of water to wet down an area or an operation through use of water carts or sprinklers to wet down contaminated excavation areas or demolition activities to control dust emissions, including controlling asbestos fibres in air and particulate borne hexavalent chromium, which may be present;
- Establishing exclusion zones for all contamination impacted excavation, handling, segregation or disposal activities. Access to exclusion zones will be restricted using decontamination units, temporary fencing and signage;
- Appropriate personal protective equipment to be implemented for all tasks in accordance with the Qualitative Occupational Hygiene Assessment (QOHA) US-050056-HS-PR-002 and workplace surveillance inspections;
- Implement an exposure monitoring program for hexavalent chromium and asbestos during excavation, handling or segregation of impacted soils to determine the concentration of the contaminants of concern and verify the adequacy of controls. Samples should be collected at a minimum of monthly during contaminated works with results assessed by the Environment and Hygiene Manager to determine any additional monitoring frequency;
- Site specific training for personnel working within contaminated area. Training includes the occupational hygiene hazards identified on the project, exposure monitoring programs, use of personal protective equipment, decontamination procedures for people, plant and equipment and a fit test for an appropriate respirator;
- Occupational hygiene workplace inspections to verify the effectiveness of contamination control measures;
- Conduct baseline and periodic medical assessments for hazardous substances, including hexavalent chromium, asbestos and volatile chlorinated hydrocarbons. Medicals will be managed by an Occupational Physician, a specialist doctor in workplace health;
- Stormwater control measures to prevent contaminated materials or water leaving site. Water from a contaminated exclusion zone would be collected and treated through either the groundwater treatment plant (GTP) or Temporary Water Treatment Plant (TWTP);
- Isolate contaminated excavated materials in designated stockpile area with appropriate covers, geotextiles, water suppression or dust binding agents to be applied to prevent windborne dust generation and erosion and sediment controls, such as sandbags, bunds or hay bales to prevent water run-off;
- Materials tracking of all excavated contaminated materials to ensure it is tracked on-site, and if applicable, offsite to an appropriately licensed landfill facility. Asbestos containing materials would be tracked using EPA's WasteLocate service;
- Visible hexavalent chromium deposits to be removed by wet vacuum technique with excess water during removal collected for treatment through the GTP or TWTP;

- Waste materials will be sampled and tested in accordance with the Waste and Resource Management Plan and must be classified in accordance with the NSW EPA Waste Classification Guidelines (2014); and
- Proposed containment cell to be designed and constructed on site that will retain wastes materials generated by the remediation works. The containment cell will be engineered to suitably contain hazardous, special waste and other designated wastes to the satisfaction of the NSW EPA accredited Site Auditor. The proposed containment cell will seek to minimise offsite disposal of waste materials.

Prior to commencement of remediation works which may intersect and/or disturb the areas regulated by EPA under the CLM Act, notification to EPA was provided and approvals were obtained by TfNSW. TfNSW is currently consulting with the NSW EPA to determine the requirements for ongoing regulation of the site under the *Contaminated Land Management (CLM) Act 1997*. Following this a new VMP will be established for the Portion 2 Early Works to meet the objectives of the RAP. A copy of the current VMP is included in Appendix C.

7.2 Roles and responsibilities

The Contractor's Project Team's organisational structure and overall roles and responsibilities are outlined in Section 3.3 of the CEMP. Specific responsibilities for the implementation of environmental controls are detailed in [Section 6](#) of this Plan.

The remediation and validations works are being conducted in accordance with a Remediation Action Plan (RAP) and Remediation Works Validation Plan (RWVP) which has been approved by a NSW EPA accredited Site Auditor. Remediation management and tracking of the RAP in accordance with the CLM Act compliance is met shall be tracked by the Site Auditor and be considered when issuing a Site Audit Statement, prior to construction of the stabling and maintenance (SaM) facility.

7.3 Training

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

- Existence and requirements of this Plan;
- Relevant legislation;
- Roles and responsibilities for contaminated land management;
- Location of identified potential contaminated land sites including environmentally sensitive locations and no-go/exclusion zones;
- Signs of contaminated soil;
- Contamination management and protection measures; and
- Procedure to follow in the event of unexpected contaminated land findings during construction works (Refer to Appendix A).

If contamination is unexpectedly discovered onsite, all workers involved in the remediation or removal will receive a toolbox informing them of the site specific controls required for remediation process including:

- Site access restrictions;

- Correct use of PPE;
- Decontamination procedures;
- Use of monitoring equipment;
- Waste handling procedures; and
- Water and dust control measures and performance measures.

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in contaminated land management or those undertaking activities in high-risk areas.

Daily pre-start meetings will inform the site personnel of any environmental issues relevant to potential contaminated land.

Further details regarding staff induction and training are outlined in Section 3.5 of the CEMP.

7.4 Monitoring and inspections

Regular compliance activities, such as inspections, observations and monitoring will be undertaken for the purposes of this CLMP throughout the Portion 2 Early Works project duration. Inspection and monitoring for contaminated land will include, but not be limited to;

- Implementation of exclusion zones with contaminated land controls and mitigation measures where contaminated land is anticipated, such as ERSED controls and elevated levels of personal protective equipment (PPE);
- Monitoring of site activities and stockpiles on a daily basis for any signs of previously unidentified contamination by plant operators, engineers and site supervisor;
- Weekly inspections and monitoring of construction & excavation activities to ensure compliance with the requirements of the CoA, REMMM and this Plan by the Environment team;
- Visual inspections and monitoring to identify potential indicators of contamination during excavation activities will occur. Suspected contamination will be sampled and analysed to determine management requirements and suitability for reuse, recycling or remediation;
- An actions form will be completed for issues requiring attention and issued to the site supervisor for action. These actions will be tracked to ensure items are closed out within the appropriate timeframes; and
- An incident report would be completed for all unexpected contamination finds in accordance with the Unexpected Finds Procedure (Appendix A).

Additional requirements and responsibilities in relation to inspections are documented in Section 3.9.1 and Section 3.9.2 of the CEMP.

Monitoring and Auditor inspections will also be undertaken to satisfy the Portion 2 Early Works requirements under the CLM Act and Project Approval are met. This will include but not limited to;

- Site visits by the NSW EPA accredited Site Auditor;
- Review of validation and materials tracking documentation through Remediation Tracking Reports, issued to TfNSW and the NSW EPA accredited Site Auditor; and
- Independent Audits and Compliance Reports.

7.5 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this Plan, CoA and other relevant approvals, licenses and guidelines. Audit requirements are detailed in Section 3.9.3 of the CEMP.

7.6 Remediation Action Plan (RAP)

A Remediation Action Plan (RAP) has been developed to establish the remediation objectives and details the strategy for Portion 2 Early Works identified as requiring remediation to make them suitable for the intended construction of SaM facility. The RAP demonstrates how the risks of contamination of soil and groundwater will be reduced as far as practicable (within acceptable levels) and prevent migration within and off the site. The RAP was endorsed by the NSW EPA accredited Site Auditor prior to commencing early works remediation activities on the site.

An addendum to the RAP will be prepared to the satisfaction of the NSW EPA accredited Site Auditor to incorporate the proposed containment of contaminated waste on site, should that option be exercised.

7.7 Site Audit Statement (SAS)

A final Site Audit Statement will be prepared by the NSW EPA accredited Site Auditor, certifying that the contaminated areas have been remediated to a standard consistent with the intended construction of SaM facility. This site will not be used to construct the SaM facility until a Site Audit Statement determines the suitability of this site and any other conditions on the Site Audit Statement have been complied with in accordance with CoA E123.

7.8 Reporting

The Weekly Environmental Inspection Checklist will be used to ensure that all environmental aspects are reviewed during inspection of the project. Actions arising from the inspections will be documented.

Contamination identified on site will be recorded on the Weekly Environmental Inspection Checklist.

Remediation Tracking Reports will be prepared to track the progress of the remediation works. The objective of the Remediation Tracking Report is to provide all remediation and validation data and information to TfNSW and the NSW EPA accredited Site Auditor in a progressive and sequential manner to facilitate the eventual validation of the site.

Further reporting will be undertaken in accordance with Section 8 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;
- Identify environmental hazards/risks not previously included in the risk register;
- 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; and
- Make comparisons with objectives and targets.

The Contractor is responsible for ensuring project environmental risks are identified and included in the risk register. As a part of the continuous improvement process, contractor will ensure appropriate mitigation measures are implemented throughout the duration of the project.

8.2 CLMP update and amendment

The processes described in Section 3.9 to Section 3.13 of the CEMP may result in the need to update or revise this Plan. This will occur as needed.

Only the Environment Manager, or delegate, has the authority to change any of the environmental management documentation.

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 3.11.2 of the CEMP.

Appendix A - Unexpected Finds Procedure

SOP UNEXPECTED FINDS

1 Purpose

This Safe Operating Procedure (SOP) (PLR-VNT-SAM-CO-PRO-000001) provides guidance on the standards to be applied for tasks unanticipated discovery is made on the Project and forms part of the Portion 2 Early Works Appendix B9 - Contaminated Land Management Plan (PLR-VNT-SAM-CO-PLN-000001).

This SOP does not cover all the possible legal, regulatory or contractual requirements that may apply to an unanticipated discovery at the Project site. Instead, it defines a work process that may be used to determine the project-specific requirements based on the individual circumstances of the discovery.

A separate Unexpected Heritage Finds procedure (PLR-TFNSW-SAM-PE-PLN-000002) has been prepared for the project, including archaeological material.

2 Scope

This procedure applies to all persons working on the Camellia Remediation Project.

3 Legislation

- Work Health and Safety Act - 2011;
- Work Health and Safety Regulations - 2017;
- Contaminated Land Management Act - 1997;
- Protection of the Environment Operations Act - 1997;
- Environmental Planning & Assessment Act - 1979;
- Heritage Act - 1977;
- SafeWork NSW Code of Practice: How to safely remove asbestos - 2016; and
- SafeWork NSW Code of Practice: How to manage and control asbestos in the workplace - 2016.

4 Site Background

Numerous environmental investigations and targeted remedial activities in selected areas have been undertaken at the Site. The investigations and assessments performed to date have identified the following contaminants of concern that drive the need for remediation of the Site:

- Hexavalent chromium (Cr(VI));
- Volatile chlorinated hydrocarbons (VCHs), including carbon tetrachloride, chloroform, tetrachloroethene and associated daughter products; and
- Other contaminants of concern are present on the Site, including asbestos.

Further information is documented in the Remediation Action Plan (RAP).

5 Process

5.1 Hazards

The following hazards have been identified (especially during excavation works) as having the potential to cause injury and harm to the environment:

- Unexpected Contamination (i.e. hexavalent chromium in an unexpected area, unknown contamination, potential acid sulfate soils (PASS));
- Hazardous material or asbestos containing material (ACM);
- Human remains;
- Unexploded munitions; and
- Buried tanks or utilities.

6 Controls

The following Work Process shall be used to help determine the appropriate protocol to be followed when an unanticipated discovery is made.

6.1 STOP Work

When an unanticipated discovery is made at the Project site, personnel including subcontractors will immediately stop work in the vicinity of the discovery. In general, the most common types of unanticipated discoveries include:

- Old rubbish dumps (includes bottles, coins etc.);
- Cast iron or metal pipes (in unexpected areas);
- Large stone blocks (could be a drain/culvert);
- Free-phase contamination (in unexpected areas);
- PASS (in unexpected areas);
- Unexpected services;
- Unexpected brick walls or floors;
- Unexpected brick drains; and
- Combustible, flammable or other hazardous materials.

Notes:

1 A change in material type i.e. fill transitioning to marine sediments is not a cause to stop work. Materials displaying visual signs of contamination unlike the surrounding material being excavated, is considered an unexpected find and Ventia will engage the validation classification consultant. However, in this case the material will be stockpiled separately and is not a cause to stop work.

2 If excavating likely PASS, Restricted Solid Waste or Hazardous Waste, pockets of impacted material is expected and is not necessarily a cause to stop work;

3 Any combustible or flammable material exposed in the excavation shall be kept physically separated from the enclosure fabric and/or a fire watch maintained until the material can be removed;

4 Where ongoing excavation uncovers combustible or flammable materials that were not anticipated, works are to stop and area isolated until the risk of burning/explosion is removed. Additional portable fire extinguishers shall be employed as an emergency control measure, with differing extinguishing media and capacity to be provided as necessary based on a risk assessment of the type and quantity of material.

6.2 Secure the area

Once construction activities have been halted, the area in the immediate vicinity of the discovery is to be secured to prevent further disturbance.

The discovery area is to be cordoned off by an exclusion zone, such as flagging or barricading, to create a visual/physical barrier and control access.

6.3 Notification

Immediately after an unanticipated discovery, the Site Supervisor shall be notified of the discovery. The Project Manager and Environment and Hygiene Manager will also be notified so that communication and coordination with TfNSW and other stakeholders (e.g. Validation Consultant, Site Auditor, NSW Police) can be initiated as determined. The Project Manager shall advise on the need to notify the Ventia Utility Services Environmental and Engineering Business Unit of the unanticipated discovery as required.

6.4 Inspections

A visual inspection of the area is required before using any tools to disturb the unexpected find. This inspection will determine the most appropriate way to handle the unexpected find, which may involve segregation, exclusion zones, recovery and/or notifications. Hazards and controls are to be documented on the SHEWMS and a Start Card is to be completed/amended as necessary. Note: a Permit may also be required if the work involves a high risk activity. The Supervisor shall authorise the removal of the discovery once permission has been given by the Project Manager and all hazards and controls have been implemented.

6.5 Prepare documentation

The appropriate Ventia representative will prepare an Unexpected Finds Record Form US-059090-ENV-FO-001. The report shall include information such as:

- The time and place of the discovery;
- The nature of the discovery i.e. all materials uncovered shall be identified;
- Where the object is deemed combustible, flammable, or hazardous, the properties and behaviour of the material will be established, including handling methodology and safe quantities to be exposed. Note: If the material is extensive, any special fire-fighting media shall be provided such as portable foam, dry chemical, or CO2 extinguishers;
- Immediate actions taken to secure the discovery site; and
- Any notifications made.

A Project representative (typically an Environmental Representative) shall take photographs of the discovery (as necessary) and attach them to the report, if possible.

6.6 Discovery notifications

It may be necessary to report the unexpected discovery to the following personnel:

- Regulatory or law enforcement personnel;
- Emergency services;
- Principal representatives;
- Appropriate Consultants; and
- Other concerned parties.

In such cases the Project Manager (or a delegate of his choosing) is responsible for notifying the relevant stakeholders.

6.7 Resume Work

Project personnel and subcontractors shall not resume work in the immediate area of any unanticipated discovery until permission has been given by the Project Manager and/or Supervisor. Personnel shall be made aware of any additional actions required for personal protection prior to resuming work.

7 Information and Training

Project personnel shall be made aware of this SOP Unexpected Finds and the actions that are required at the Project's site induction and via pre-starts and toolbox talks.

8 Monitoring and Review

The on-going application and effectiveness of this SOP shall be monitored via the following processes:

- Task observations (LEADs) to confirm correct work methods;
- Daily walkthrough site inspections;
- Formal weekly inspections to confirm workplace conditions are conducive to project activities; and
- Critical risk audits to be undertaken to confirm correct application of this SOP.

Unless otherwise triggered via an incident, process change, or other event, this SOP shall be reviewed annually.

9 Responsibility and Accountability

9.1 Project Manager

- Ensure that all Project personnel are instructed on the immediate actions to take if an item of significance is discovered;
- Secure the area and perform notifications as required;
- Authorise the re-commencement of work once all hazards and controls have been implemented; and
- Ensure the application of this SOP.

9.2 Supervisor

- Act on any reported unexpected discoveries;
- Ensure personnel STOP work (if required), are in a safe area and that the discovery area is secured;
- Ensure hazards and controls have been implemented prior to recommencement of work; and
- Ensure the application of this SOP.

9.3 SHEQ Personnel

- Provide training and instruction on this SOP - Unexpected Finds;
- Prepare Discovery / Incident Reports as required; and
- Monitor the application of this SOP.

9.4 Site Personnel

- Comply with this SOP;
- Immediately STOP work and report any unexpected find;
- Await further instructions before re-commencing work; and

- Report any improvements to procedures for review.

10 Related documents

Document	Reference
START Card	US-059090-HS-FO-035
HSE Activities and Lead Indicators	US-059090-HS-GL-008
HSE Communication and Consultation	US-059090-HS-GL-004
Risk Assessment - Manual Labouring Activities	US-059090-HS-FO-021
Unexpected Finds Record Form	US-059090-ENV-FO-001
Unexpected Heritage Finds Procedure	PLR-TFNSW-SAM-PE-PLN-000002
Contaminated Land Management Plan	PLR-VNT-SAM-CO-PLN-000001
Guidelines for Management of Human Skeletal Remains	NSW Heritage Office, 1998
Remediation Action Plan for 6-10 Grand Avenue, Camellia NSW	Golder, 2017

11 Definitions

Term	Meaning
LEAD	Lead-Engage-Analyse-Discuss
PPE	Personal protective equipment. Refer to site and area PPE requirements.
RAP	Remediation Action Plan
SOP	A document that provides detailed step-by-step information on how work activities will be carried out. May document risks and controls associated with each step (then is titled a SHEWMS)
SHEWMS	A task level hazard identification tool concentrating on current conditions, interactions and resources.
Start Card	Low-level review of agreed procedures or practices against actual work conditions or interactions.
Workplace	Any place where work is carried out for Ventia and includes any place where an employee goes, or is likely to be, during their employment. Examples of workplaces for the purposes of this policy include but are not limited to: <ul style="list-style-type: none"> • Ventia locations, during or outside of working hours • work locations of customers or clients • vehicles, machines or other heavy equipment • other locations employees visit for work, including when travelling for business or being accommodated overnight

Term	Meaning
	<ul style="list-style-type: none"> work functions, Ventia functions or other events related to work with Ventia.

12 Approval

Document SME:	
Document approver:	
Review date:	

13 Version history

Version	Effective Date	Author	Change Notes
			Updated from Environmental Services SOP
			Post TfNSW and ER review

14 Appendices

Appendix	Document	Reference
A	Unexpected Finds Form	US-059090-ENV-FO-001

Appendix A - Unexpected Finds Form

Initial Inspection / Actions Undertaken			
Date and time:		Person:	
Area:			
Works that uncovered the find:			
Is it a suspected object of heritage significance?	Yes / No	If yes stop work immediately in the area and contact Project Supervisor &/or Project Manager	
Has the heritage site/object been damaged?	Yes / No	If yes, complete Incident Report Form	
Observation/description of the object:			
Actions:			
Is unexpected high contamination uncovered?	Yes / No	If yes stop work immediately in the area and contact Project Supervisor &/or Project Manager	
Description of source of highly contaminated material?	(e.g. free phase contamination)		
Actions:			
Has unexpected asbestos containing material (ACM) been uncovered? (e.g. friable asbestos)	Yes / No	If yes stop work immediately in the area and contact Project Supervisor &/or Project Manager.	
Actions:			

Sampling / Clearance Reports *(ENVIRO TEAM TO COMPLETE)*

Were samples taken?

Yes / No

Sample ID's

Comments:

Disposing of material / Closing out

Recommendations/ disposal actions:

Can Works Recommence?

Yes / No

Signed (Project Manager)

Date

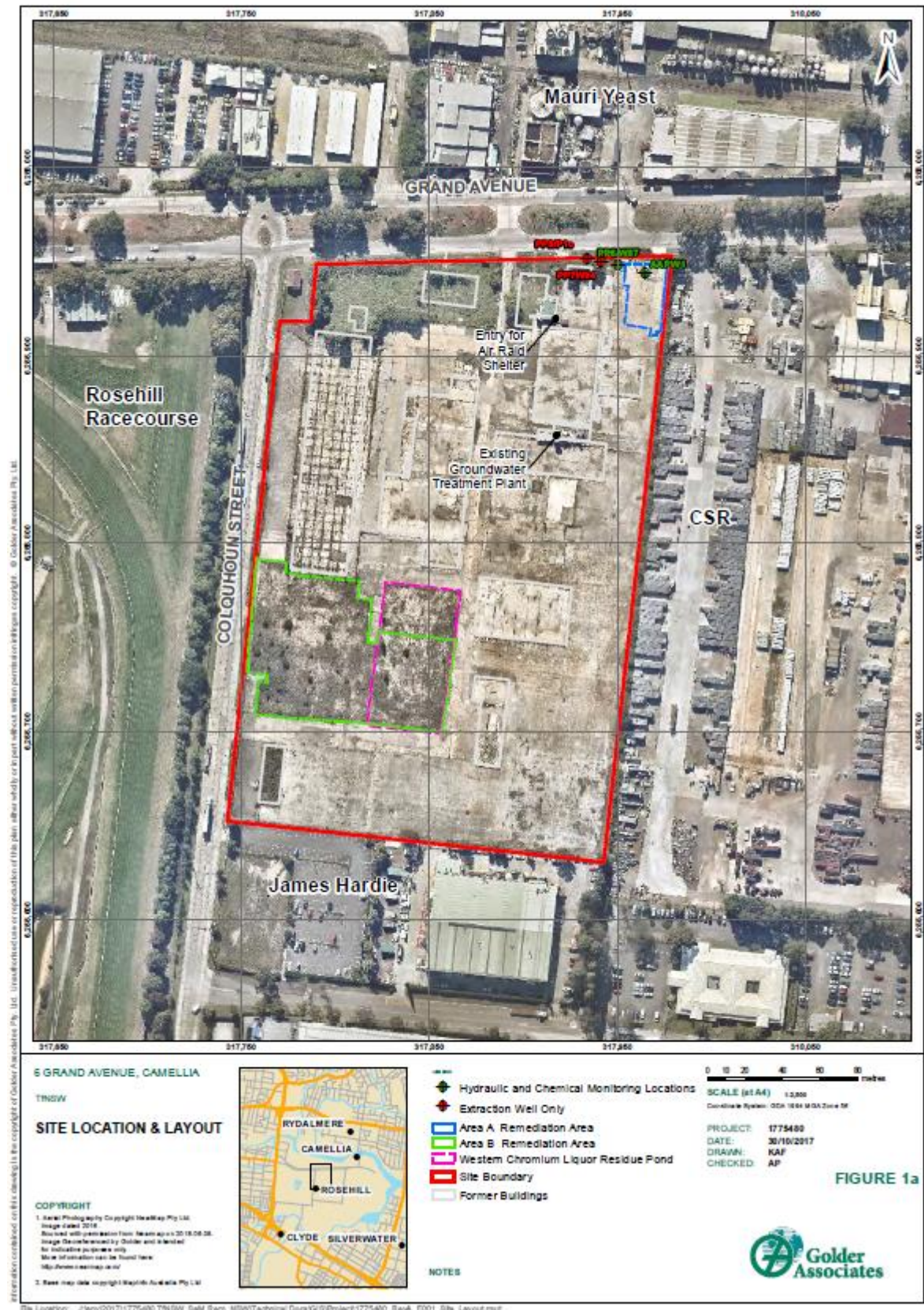
Signed (Client)

Date

**Please attach the Waste Classification and/or EPA Waste Tracking Form (if any contaminated material is taken off site) and any photos taken.*

Photos

Appendix B – Site layout



Appendix C – Voluntary Management Proposal (VMP) number 20191710



Our reference: [REDACTED]

[REDACTED]
Associate Director, Environmental Management
Transport for NSW
Level 11, 130 George Street
PARRAMATTA NSW 2150

Dear [REDACTED]

**Amendment to the Approved Voluntary Management Proposal (VMP) (No.20191710)
Former Akzo Chemicals Site - 6 Grand Avenue, Camellia NSW 2142**

The NSW Environment Protection Authority (EPA) has amended the deadlines in the approved VMP No.20191710 for the site located at 6 Grand Avenue, Camellia (the site), in response to your letter dated 18 December 2019.

The notice to amend the approved VMP (Notice No. 20194452) is enclosed in this letter and will also be placed on our public register. Parramatta City Council will also be informed of the amendments.

If Transport for NSW is unable to meet any deadline identified in the amendment to the approved VMP, a written request for an extension must be provided. The request must be made 21 days before the deadline, and must outline the reasons for the delay, a revised time within which the deadline will be achieved and a statement explaining why enforcement action should not be taken.

If you have any questions on this matter, please contact [REDACTED] on [REDACTED] or [REDACTED]

Yours sincerely

[REDACTED]
20 December 2019

**Manager Contaminated Land Regulation
Environment Protection Authority**

Attached: s44 notice to amend the voluntary management proposal (No. 20194452)

CC: [REDACTED] Transport for NSW
[REDACTED] Transport for NSW

[REDACTED]

Notice to amend Approved Voluntary Management Proposal

(Section 44 of the *Contaminated Land Management Act 1997*)

Notice Number 20194452; Area Number 3017

Background

The land to which this notice applies was declared as "significantly contaminated land" (Declaration No. 21035) by the Environment Protection Authority (EPA) and is the subject of an EPA approved Voluntary Management Proposal (VMP) with Transport for NSW (TfNSW - Approval No. 20191710). The VMP implements the remediation works required to mitigate future migration of contamination from the site into the surrounding environment and render the site suitable for use as the stabling and maintenance facility for Parramatta Light Rail.

Land to which this notice applies

Description	Address
Lot 3 DP 843591	6 Grand Avenue Camellia NSW 2142

Amendment of Approved VMP

A request has been made by TfNSW to amend the milestone dates in the VMP due to delays in the development of the detailed design for the Portion 2 remediation works (the integrated capping system), and the corresponding finalisation of the Remediation Works and Validation Plan (RWVP) for the Portion 2 remediation works. The EPA considers that the request from TfNSW for the amendment is reasonable and agrees to amend **Part 3 Performance Schedule** of the VMP as detailed below.

Item 2 - Principal features of the proposal

Item P11 is amended to reflect the future land use of the site, as follows:

- P11. Provision of a Site Audit Statement indicating the objectives of this VMP and the RAP have been achieved, and that the site is suitable for use as the stabling and maintenance facility for Parramatta Light Rail.

Item 3 - Key milestones for investigation, remediation and other actions

All works set out in the proposal must be completed by the revised deadlines specified below:

Works	Amended Date
T1. Completion of the Portion 1 remediation works	Complete
T2. Completion of detailed design of the Portion 2 remediation works	30 April 2020
T3. Completion of the Portion 2 remediation works	31 January 2021
T4. Completion of final remediation infrastructure components	30 September 2022

Item 4 - Reporting requirements and timeframe for submission of reports

The EPA must be provided with the following reports by the revised deadlines specified below:

Report	Amended Date
R1. Community Engagement Plan for Portion 2 Remediation Works	Complete
R2. Remediation Works and Validation Plan for Portion 2 remediation works, including Site Auditor endorsement	30 April 2020
R3. Portion 1 Validation Report, including Site Auditor endorsement	30 April 2020
R4. Site Audit Statement for the Portion 1 remediation works	30 April 2020
R5. Portion 2 Validation Report, including Site Auditor endorsement	30 June 2021
R6. Long Term Site Environmental Management Plan (LTSEMP), including Site Auditor endorsement	30 June 2021
R7. Site Audit Statement for the Portion 2 remediation works and LTSEMP	30 June 2021
R8. Site Audit Statement indicating the objectives of this VMP and RAP have been achieved, and that the site is suitable for use as the stabling and maintenance facility for Parramatta Light Rail	31 December 2022

Other than the amendments set out above, the remaining terms of the VMP No.20191710 remain in force.

20 December 2019

Manager Contaminated Land Regulation
Environment Protection Authority

NOTE:

Information recorded by the EPA

Section 58 of the CLM Act requires the EPA to maintain a public record. A copy of this notice will be included in the public record.

Information recorded by councils

Section 59 of the CLM Act requires the EPA to give a copy of this notice to the relevant local council. The council may then make appropriate consequential modifications to the planning certificate issued in relation to the land to which this notice applies pursuant to s10.7 of the *Environmental Planning and Assessment Act 1979*.

Relationship to other regulatory instrument

This notice does not affect the provisions of any relevant environmental planning instruments which apply to the land or provisions of any other environmental protection legislation administered by the EPA.

Previous regulatory instrument

As of 1 July 2009, all current declarations of investigation area and declarations of remediation site are taken to be declarations of significantly contaminated land, all current investigation orders and remediation orders are taken to be management orders and all current agreed voluntary investigation proposals and agreed voluntary remediation proposals are taken to be approved voluntary management proposals.



Our reference: DOC19/1083665-1

[REDACTED]
Associate Director, Environmental Management
Transport for NSW
Level 11, 130 George Street
PARRAMATTA NSW 2150

Dear [REDACTED]

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If Transport for NSW is unable to meet any deadline identified in the amendment to the approved VMP, a written request for an extension must be provided. The request must be made 21 days before the deadline, and must outline the reasons for the delay, a revised time within which the deadline will be achieved and a statement explaining why enforcement action should not be taken.

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Yours sincerely

[REDACTED]
20 December 2019

**Manager Contaminated Land Regulation
Environment Protection Authority**

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CC: [REDACTED] Transport for NSW
[REDACTED] Transport for NSW



Environment Protection Authority

Notice to amend Approved Voluntary Management Proposal

(Section 44 of the *Contaminated Land Management Act 1997*)

Notice Number 20194452; Area Number 3017

Background

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Item 2 - Principal features of the proposal

Item P11 is amended to reflect the future land use of the site, as follows:

- P11. Provision of a Site Audit Statement indicating the objectives of this VMP and the RAP have been achieved, and that the site is suitable for use as the stabling and maintenance facility for Parramatta Light Rail.

Item 3 - Key milestones for investigation, remediation and other actions

All works set out in the proposal must be completed by the revised deadlines specified below:

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R3. Portion 1 Validation Report, including Site Auditor endorsement	30 April 2020
R4. Site Audit Statement for the Portion 1 remediation works	30 April 2020
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R8. Site Audit Statement indicating the objectives of this VMP and RAP have been achieved, and that the site is suitable for use as the stabling and maintenance facility for Parramatta Light Rail	31 December 2022

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20 December 2019

**Manager Contaminated Land Regulation
Environment Protection Authority**

NOTE:

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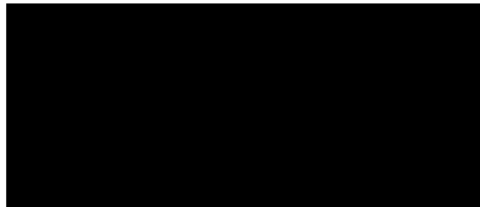
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Appendix D - ER Endorsement



1 March 2021

Transport for NSW

Attention to: 
Senior Manager Environment
Parramatta Light Rail
130 George St, Parramatta, NSW 2150

**Review of Appendix B9
Contaminated Land Management Sub-Plan.
Package 3 – Portion 2 Early Works
(PLR-VNT-SAM-CO-PLN-000004)**

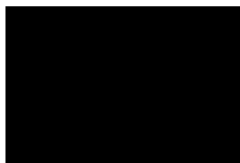
Pursuant to SSI8285 Condition of Approval A23 (d) i), as the approved Environmental Representative, I confirm that I have reviewed the updated document Appendix B9, Contaminated Land Management Sub-Plan, Package 3 – Portion 2 Early Works (PLR-VNT-SAM-CO-PLN-000004), revision 05, dated 25 February 2021, revised by Ventia, for consistency with the requirements of the Conditions of Approval.

In my opinion the changes to the aforementioned document, updated to include the amended Trade Waste Agreement and other editorial changes, are minor amendments that are administrative in nature and remain consistent with the requirements included in or required under the terms of the Conditions of Approval for the Parramatta Light Rail (Stage 1) development.

The minor amendments are approved in accordance with CoA A29(g)(iii).

Yours sincerely,





Environmental Representative







