

NSW Site Auditor Scheme

## Site Audit Statement

A site audit statement summarises the findings of a site audit. For full details of the site auditor's findings, evaluations and conclusions, refer to the associated site audit report.

This form was approved under the *Contaminated Land Management Act* 1997 on 12 October 2017.

For information about completing this form, go to Part IV.

## Part I: Site audit identification

Site audit statement no. 2023/SY036

This site audit is a:

- ✓ statutory audit
- non-statutory audit

within the meaning of the Contaminated Land Management Act 1997.

#### Site auditor details

(As accredited under the Contaminated Land Management Act 1997)

Name Mr Brad May

Company Epic Environmental Pty Ltd

Address Suite 5, Level 9, 189 Kent Street, Sydney NSW

Postcode 2000

Phone 1800 779 363, 0400 497 512

Email bmay@epicenvironmental.com.au

#### Site details

Address: Brenan Street, Lilyfield, NSW

Postcode: 2040

#### **Property description**

(Attach a separate list if several properties are included in the site audit.)

Part Lot 13 Deposit Plan (DP) 1256361 (refer to attached site plan)

Local government area Inner West Council

Area of site (include units, e.g. hectares) 3,400 m<sup>2</sup>

Current zoning: Port and Employment Zone (Sydney Regional Environmental Plan No. 26 – City West)

#### **Regulation and notification**

To the best of my knowledge:

the site is the subject of a declaration, order, agreement, proposal or notice under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985, as follows: (provide the no. if applicable)

₽	Declaration no.
₽	<del>Order no.</del>
₽	Proposal no.
₽	Notice no.

✓ the site is not the subject of a declaration, order, proposal or notice under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.

To the best of my knowledge:

- the site has been notified to the EPA under section 60 of the Contaminated Land Management Act 1997
  - ✓ the site has not been notified to the EPA under section 60 of the Contaminated Land Management Act 1997.

#### Site audit commissioned by

Name: Charles Scarf

Company: John Holland CPB Contractors Joint Venture

Address: 84 Lilyfield Road, Rozelle

Postcode: 2039

Phone: 0438 247 725

Email: Charles.scarf@rozelleinterchange.com.au

#### **Contact details for contact person** (if different from above)

Name: Ciara Moriarty

Phone: 0417 738 136

Email: ciara.moriarty@rozelleinterchange.com.au

Nature of statutory requirements (not applicable for non-statutory audits)

- Requirements under the Contaminated Land Management Act 1997 (e.g. management order; please specify, including date of issue)
- Requirements imposed by an environmental planning instrument (please specify, including date of issue)

State Significant Infrastructure (SSI) 7485, issued 17 April 2018, Conditions of Approval for the WestConnex Stage 3B Rozelle Interchange, conditions relating to contaminated sites (E181 to E185) and waste (E202 to E203).

- Development consent requirements under the Environmental Planning and Assessment Act 1979 (please specify consent authority and date of issue)
- Requirements under other legislation (please specify, including date of issue)

#### Purpose of site audit

A1 To determine land use suitability

Intended uses of the land:

OR

✓ A2 To determine land use suitability subject to compliance with either an active or passive environmental management plan

Intended uses of the land: Pedestrian, and bicycle pathways (including a footbridge over City west link and minor landscape open space areas.

OR

(Tick all that apply)

B1 To determine the nature and extent of contamination

**B2** To determine the appropriateness of:

- an investigation plan
- a remediation plan
- **a** management plan
- B3 To determine the appropriateness of a site testing plan to determine if groundwater is safe and suitable for its intended use as required by the *Temporary Water Restrictions Order for the Botany Sands Groundwater Resource 2017*
- **B4** To determine the compliance with an approved:
  - ❑ voluntary management proposal or
  - management order under the Contaminated Land Management Act 1997
- **B5** To determine if the land can be made suitable for a particular use (or uses) if the site is remediated or managed in accordance with a specified plan.

Intended uses of the land:

#### Information sources for site audit

Consultancies which conducted the site investigations and/or remediation:

Ramboll, WSP, AECOM and ERM

Titles of reports reviewed:

- Ramboll 2019, 'WestConnex Stage 3B Rozelle Interchange Contaminated Land Sampling and Analysis Plan', (SAQP), Revision D2, August 2019, (Ramboll SAQP 2019), Appendix H: Site Specific SAQP – RY01
- WSP 2020, 'Work Plan- Sub Site Area- Pigtail (Former RY01)', 20 March 2020 (Ref: PS117368-CLM-LTR-WP-RY01 RevC)

- WSP 2021, 'WestConnex Stage 3B Rozelle Interchange Sub Site Area Pigtail Bridge – Detailed Site Investigation', 17 March 2021 (Ref: PS117368-CLM-REP-PT RevC, Final).
- WSP 2022, 'WestConnex Stage 3B Rozelle Interchange Sub-Site Area Pigtail Bridge – Remediation Approach', 2 December 2022 (Ref: PS117368-CLM-MEM-Pigtail\_RevE)
- WSP 2023a, 'WestConnex Stage 3B Rozelle Interchange Sub Site Area Pigtail Bridge – Validation Report', (Ref: PS117368-CLM-REP-Pigtail VAL RevC) 30 November 2023
- WSP 2023b, 'WestConnex Stage 3B Rozelle Interchange Sub Site Area Pigtail Bridge – Long Term Environmental Management Plan', 29 November 2023 (Ref: PS117368-CLM-REP-Pigtail EMP RevC

Other information reviewed, including previous site audit reports and statements relating to the site:

- ERM 2002, 'Stage 1 and Stage 2, Brenan Street Lilyfield, Environmental Site Assessment'
- Coffey (2003), 'Additional Environmental Investigations at Brenan Street, Lilyfield NSW'
- AECOM 2016, 'WestConnex M4-M5 Link Rozelle Interchange, Stage 1 Preliminary Site Investigation'. Ref: M4M5-REP-4000-EN-030A. 19 May 2016.

#### Site audit report details

Title: WestConnex Stage 3B Rozelle, Pigtail Bridge – Site Audit Report – 2023/ SY036, City West Link. SY180068.01, 1 December 2023.

Report no. SY180068.01\_RepSAR\_SY36\_PigtailBridge\_Rev0 Date 23 November 2023

## Part II: Auditor's findings

Please complete either Section A1, Section A2 or Section B, not more than one section. (Strike out the irrelevant sections.)

- Use **Section A1** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **without the implementation** of an environmental management plan.
- Use **Section A2** where site investigation and/or remediation has been completed and a conclusion can be drawn on the suitability of land uses **with the implementation** of an active or passive environmental management plan.
- Use **Section B** where the audit is to determine:
- o (B1) the nature and extent of contamination, and/or
- (B2) the appropriateness of an investigation, remediation or management plan<sup>1</sup>, and/or
- (B3) the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or
- (B4) whether the terms of the approved voluntary management proposal or management order have been complied with, and/or
- (B5) whether the site can be made suitable for a specified land use (or uses) if the site is remediated or managed in accordance with the implementation of a specified plan.

<sup>&</sup>lt;sup>1</sup> For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

## Section A1

#### I certify that, in my opinion:

The site is suitable for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- Besidential, including substantial vegetable garden and poultry
- Besidential, including substantial vegetable garden, excluding poultry
- Residential with accessible soil, including garden (minimal home grown produce contributing less than 10% fruit and vegetable intake), excluding poultry
- Day care centre, preschool, primary school
- Besidential with minimal opportunity for soil access, including units
- Secondary school
- Park, recreational open space, playing field
- Commercial/industrial
- Other (please specify):

### OR

I certify that, in my opinion, the site is not suitable for any use due to the risk of harm from contamination.

**Overall comments:** 

## Section A2

### I certify that, in my opinion:

Subject to compliance with the **<u>attached</u>** environmental management plan<sup>2</sup> (EMP), the site is suitable for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- Besidential, including substantial vegetable garden and poultry
- Residential, including substantial vegetable garden, excluding poultry
- Residential with accessible soil, including garden (minimal home-grown produce contributing less than 10% fruit and vegetable intake), excluding poultry
- Day care centre, preschool, primary school
- Besidential with minimal opportunity for soil access, including units
- Secondary school
  - ☑ Park, recreational open space, playing field
- Commercial/industrial
  - ☑ Other (please specify):

Drainage channels, footpath, cycleway

#### **EMP** details

Title: WSP 2023b, 'WestConnex Stage 3B – Rozelle Interchange – Sub Site Area – Pigtail Bridge – Long Term Environmental Management Plan'(Ref: PS117368-CLM-REP-Pigtail EMP RevC

Author:WSP	
Date: 29 November 2023	No. of pages 46

#### **EMP** summary

This EMP (attached) is required to be implemented to address residual contamination on the site.

The EMP: (Tick appropriate box and strike out the other option.)

**u** requires operation and/or maintenance of **active** control systems<sup>3</sup>

 $\square$  requires maintenance of **passive** control systems only<sup>3</sup>.

<sup>&</sup>lt;sup>2</sup> Refer to Part IV for an explanation of an environmental management plan.

<sup>&</sup>lt;sup>3</sup> Refer to Part IV for definitions of active and passive control systems.

Purpose of the EMP:

The purpose of the Long Term Environmental Plan (LTEMP) is to manage potential adverse health and environmental impacts associated with soil contamination at the site. The LTEMP provides the passive management requirements to ensure the longevity of the installed capping system and to ensure any works that penetrate the capping system are appropriately controlled.

Description of the nature of the residual contamination:

Soils containing polycyclic aromatic hydrocarbons (PAHs), heavy metals and asbestos was identified at the Crescent Civil sub-site at concentrations requiring management under the LTEMP.

Summary of the actions required by the EMP:

- Environmental awareness and training
- 6-monthly visual inspections of capped areas
- Maintenance of capping
- Sets out imported fill and VENM testing and validation requirements
- Controls to be applied during minor sub-surface works (not involving breaching of capping layer)
- Management controls for observed breaches of containment (either hardstand or capped landscaped areas)
- Sets out procedures for subsurface works reinstatement to ensure protection of workers an future site users
- Sets out Unexpected finds protocols
- Incident and emergency procedures
- Provides complaint and environmental incident procedures and register
- Reporting and LTEMP review requirements

How the EMP can reasonably be made to be legally enforceable:

The Environmental Planning and Assessment Act 1979 (EP&A Act) and State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP) provides the primary mechanism for ensuring the LTEMP is enforced with respect to changes in the allowable land uses or material alterations to the site and surrounds. Future redevelopment work at the site is significant enough to require consent from the local council (Inner West Council) under the EP&A Act, which provides an avenue for enforcement as Council may require adoption of this LTEMP as a condition of development consent for the site.

The site owner (Transport for NSW) will be responsible for routine monitoring and maintenance of the LTEMP areas.

How there will be appropriate public notification:

As per condition E183 of the infrastructure approval, the Secretary of the NSW Department of Planning and Environment (or nominee) and Inner West Council (Council) are also to be provided a copy of the site audit statement. Council must provide a notification of the existence of the audit on the planning certificate/s for the site issued under section 10.7 of the EP&A Act.

Overall comments:

## Section B

Purpose of the plan<sup>4</sup> which is the subject of this audit:

### I certify that, in my opinion:

<del>(B1)</del>

- The nature and extent of the contamination has been appropriately determined
- The nature and extent of the contamination has not been appropriately determined

#### AND/OR (B2)

- The investigation, remediation or management plan is appropriate for the purpose stated above
- The investigation, remediation or management plan **is not** appropriate for the purpose stated above

#### AND/OR (B3)

- ➡ The site testing plan:
  - **is** appropriate to determine
  - □ **is not** appropriate to determine

if groundwater is safe and suitable for its intended use as required by the *Temporary* Water Restrictions Order for the Botany Sands Groundwater Resource 2017

#### AND/OR (B4)

- The terms of the approved voluntary management proposal\* or management order\*\* (strike out as appropriate):
  - ➡ have been complied with
  - ➡ have not been complied with.

\*voluntary management proposal no.

\*\*management order no.

#### AND/OR (B5)

The site **can be made suitable** for the following uses:

(Tick all appropriate uses and strike out those not applicable.)

- Besidential, including substantial vegetable garden and poultry
- Besidential, including substantial vegetable garden, excluding poultry

<sup>&</sup>lt;sup>4</sup> For simplicity, this statement uses the term 'plan' to refer to both plans and reports.

- Residential with accessible soil, including garden (minimal home grown produce contributing less than 10% fruit and vegetable intake), excluding poultry
- Day care centre, preschool, primary school
- Besidential with minimal opportunity for soil access, including units
- Secondary school
- Park, recreational open space, playing field
- Commercial/industrial
- Other (please specify):

IF the site is remediated/managed\* in accordance with the following plan (attached):

\*Strike out as appropriate

Plan title

Plan author

Plan date

No. of pages

SUBJECT to compliance with the following condition(s):

**Overall comments:** 

## Part III: Auditor's declaration

I am accredited as a site auditor by the NSW Environment Protection Authority (EPA) under the *Contaminated Land Management Act 1997.* 

Accreditation no. 1603

#### I certify that:

- I have completed the site audit free of any conflicts of interest as defined in the *Contaminated Land Management Act 1997,* and
- with due regard to relevant laws and guidelines, I have examined and am familiar with the reports and information referred to in Part I of this site audit, and
- on the basis of inquiries I have made of those individuals immediately responsible for making those reports and obtaining the information referred to in this statement, those reports and that information are, to the best of my knowledge, true, accurate and complete, and
- this statement is, to the best of my knowledge, true, accurate and complete.

I am aware that there are penalties under the *Contaminated Land Management Act* 1997 for wilfully making false or misleading statements.

Signed

Date 1 December 2023

## Part IV: Explanatory notes

To be complete, a site audit statement form must be issued with all four parts.

## How to complete this form

### Part I

Part I identifies the auditor, the site, the purpose of the audit and the information used by the auditor in making the site audit findings.

### Part II

Part II contains the auditor's opinion of the suitability of the site for specified uses or of the appropriateness of an investigation, or remediation plan or management plan which may enable a particular use. It sets out succinct and definitive information to assist decision-making about the use or uses of the site or a plan or proposal to manage or remediate the site.

The auditor is to complete either Section A1 or Section A2 or Section B of Part II, **not** more than one section.

### Section A1

In Section A1 the auditor may conclude that the land is *suitable* for a specified use or uses OR *not suitable* for any beneficial use due to the risk of harm from contamination.

By certifying that the site is *suitable*, an auditor declares that, at the time of completion of the site audit, no further investigation or remediation or management of the site was needed to render the site fit for the specified use(s). **Conditions must not be** imposed on a Section A1 site audit statement. Auditors may include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

### Section A2

In Section A2 the auditor may conclude that the land is *suitable* for a specified use(s) subject to a condition for implementation of an environmental management plan (EMP).

### Environmental management plan

Within the context of contaminated sites management, an EMP (sometimes also called a 'site management plan') means a plan which addresses the integration of environmental mitigation and monitoring measures for soil, groundwater and/or hazardous ground gases throughout an existing or proposed land use. An EMP succinctly describes the nature and location of contamination remaining on site and states what the objectives of the plan are, how contaminants will be managed, who will be responsible for the plan's implementation and over what time frame actions specified in the plan will take place.

By certifying that the site is suitable subject to implementation of an EMP, an auditor declares that, at the time of completion of the site audit, there was sufficient information satisfying guidelines made or approved under the *Contaminated Land Management Act* 1997

(CLM Act) to determine that implementation of the EMP was feasible and would enable the specified use(s) of the site and no further investigation or remediation of the site was needed to render the site fit for the specified use(s).

Implementation of an EMP is required to ensure the site remains suitable for the specified use(s). The plan should be legally enforceable: for example, a requirement of a notice under the CLM Act or a development consent condition issued by a planning authority. There should also be appropriate public notification of the plan, e.g. on a certificate issued under s.149 of *the Environmental Planning and Assessment Act 1979*.

#### Active or passive control systems

Auditors must specify whether the EMP requires operation and/or maintenance of active control systems or requires maintenance of passive control systems only. Active management systems usually incorporate mechanical components and/or require monitoring and, because of this, regular maintenance and inspection are necessary. Most active management systems are applied at sites where if the systems are not implemented an unacceptable risk may occur. Passive management systems usually require minimal management and maintenance and do not usually incorporate mechanical components.

#### Auditor's comments

Auditors may also include **comments** which are key observations in light of the audit which are not directly related to the suitability of the site for the use(s). These observations may cover aspects relating to the broader environmental context to aid decision-making in relation to the site.

#### Section B

In Section B the auditor draws conclusions on the nature and extent of contamination, and/or suitability of plans relating to the investigation, remediation or management of the land, and/or the appropriateness of a site testing plan in accordance with the *Temporary Water Restrictions Order for the Botany Sands Groundwater Source 2017*, and/or whether the terms of an approved voluntary management proposal or management order made under the CLM Act have been complied with, and/or whether the site can be made suitable for a specified land use or uses if the site is remediated or managed in accordance with the implementation of a specified plan.

By certifying that a site *can be made suitable* for a use or uses if remediated or managed in accordance with a specified plan, the auditor declares that, at the time the audit was completed, there was sufficient information satisfying guidelines made or approved under the CLM Act to determine that implementation of the plan was feasible and would enable the specified use(s) of the site in the future.

For a site that *can be made suitable*, any **conditions** specified by the auditor in Section B should be limited to minor modifications or additions to the specified plan. However, if the auditor considers that further audits of the site (e.g. to validate remediation) are required, the auditor must note this as a condition in the site audit statement. The condition must not specify an individual auditor, only that further audits are required.

Auditors may also include **comments** which are observations in light of the audit which provide a more complete understanding of the environmental context to aid decision-making in relation to the site.

### Part III

In **Part III** the auditor certifies their standing as an accredited auditor under the CLM Act and makes other relevant declarations.

## Where to send completed forms

In addition to furnishing a copy of the audit statement to the person(s) who commissioned the site audit, statutory site audit statements must be sent to

 the NSW Environment Protection Authority: <u>nswauditors@epa.nsw.gov.au</u> or as specified by the EPA

AND

• the **local council** for the land which is the subject of the audit.



## Design for a better *future /*

JOHN HOLLAND CPB

LONG TERM ENVIRONMENTAL MANAGEMENT PLAN

PIGTAIL BRIDGE PART LOT 13 DP1256361

**\\**\\

NOVEMBER 2023

## Question today Imagine tomorrow Create for the future

### Long Term Environmental Management Plan Pigtail Bridge Part Lot 13 DP1256361

#### John Holland CPB

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REV	DATE	DETAILS
А	27/09/2023	Draft
В	24/11/2023	Revised draft
С	29/11/2023	Final

	NAME	DATE	SIGNATURE
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# **NSD**

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## ABBREVIATIONS

DSI	Detailed site investigation
EIL	Ecological investigation level
HIL	Health investigation level
LTEMP	Long term environmental management plan
mbgl	metres below ground level
NEPM	National Environment Protection (Assessment of Site Contamination) Measure 1999
NSW EPA	New South Wales Environment Protection Authority
РАН	Polycyclic aromatic hydrocarbon
POEO Act	Protection of the Environment Operations Act 1997
SWMS	Safe work method statement
TEQ	Toxic equivalence quotient
TfNSW	Transport for NSW
WCX3B	WestConnex Stage 3B
WHS	Work Health and Safety

## **1** INTRODUCTION

## 1.1 INTRODUCTION AND BACKGROUND

WSP Australia Pty Ltd (WSP) was commissioned by John Holland CPB Joint Venture (JHCPB) to prepare a long-term environmental management plan (LTEMP) for a sub-site area called Pigtail Bridge located to the south-west of the main site for the WestConnex Stage 3B Rozelle Interchange project (WCX3B). The sub-area pertaining to this LTEMP comprises part Lot 13 in Deposited Plan (DP) 1256361, located at Brenan Street, Lilyfield, NSW and is herein referred to as the 'site' (refer to Figures 1 and 2 of Appendix A for site location and Appendix E for the site survey plan).

Soil containing polycyclic aromatic hydrocarbons (PAHs) and asbestos was previously identified at the site during occupation by JHCPB for construction of the WCX3B project. The contaminated areas have been remediated via the construction of soil or hardstand capping layers.

## 1.2 PURPOSE

This LTEMP has been prepared to manage potential adverse health and environmental impacts associated with soil contamination at the site. This LTEMP provides the passive management requirements to ensure the longevity of the installed capping system and to ensure any works that penetrate the capping system are appropriately controlled. No active management is required for the site.

This LTEMP will apply indefinitely or until such a time that a site audit statement can be prepared by a NSW Environment Protection Authority (EPA) accredited site auditor stating that an EMP is not required for the site.

In handing over completed works to Transport for NSW (TfNSW), JHCPB has a contractual obligation under its Project Deed to provide all documentation that is required for TfNSW (and others) to operate and maintain the relevant works. This LTEMP forms part of such deliverables that JHCPB must handover at completion along with a Certificate of Completion ensuring that handover is on the basis that TfNSW is aware of and complies with the LTEMP requirements.

## 1.3 OBJECTIVES

The objectives of this LTEMP are to:

- define appropriate management and mitigation measures to be implemented to manage potential environmental and health and safety risks associated with residual subsurface soil impacted by PAHs and asbestos;
- outline the monitoring and maintenance measures required to maintain integrity of the constructed capping systems;
- ensure activities associated with any future site works are managed in a way that minimises the potential impact to the surrounding environment; and
- ensure all personnel involved are aware of environmental issues associated with residual PAHs and asbestos in soil.

The objectives are to be achieved through the application of health and safety procedures as well as the application of controls during the maintenance of utilities, site planning/preparation work and potential future excavation works at the site.

## 1.4 EMP REGULATORY CONTEXT

Key legislation relevant to the proposed works is listed below:

- Contaminated Land Management Act 1997 (NSW)

- Environment Protection and Biodiversity Conservation Act 1999 (Cmlth)
- Environmental Hazardous Chemicals Act 1985 (NSW)
- Environmental Planning and Assessment Act 1979 (NSW)
- Landcom 2004, Managing Urban Stormwater: Soils and Construction
- National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM, as amended 2013)
- NSW EPA 2014, Waste Classification Guidelines
- Protection of the Environment Operations Act 1997 (POEO Act; NSW)
- Protection of the Environment Operations Regulation 2009 (POEO Regulation; NSW)
- SafeWork Australia, 2019 Code of Practice How to Manage Work Health and Safety Risks
- SafeWork Australia, 2019 Code of Practice Construction Work
- SafeWork Australia, 2020 Code of Practice Excavation Work
- Waste Avoidance and Resource Recovery Act 2001 (NSW)
- Work Health and Safety Act 2011
- Work Health and Safety Regulation 2017.

## 1.5 CURRENT/FUTURE LAND USE

The site comprises open space (garden) use with restricted public access. There will be no public access to the site with the exception of the footbridge portion of the site. The areas of the site capped using clean validated topsoil and marker layer will not be accessible to the public. It is expected that only maintenance workers will access the broader site area.

## 2 SITE DESCRIPTION

## 2.1 SITE IDENTIFICATION

The general property identification information is provided in Table 2.1 below. The location of the site is displayed on Figure 1 and the site layout is displayed on Figure 2 (Appendix A).

Table 2.1 Site details

SITE INFORMATION			
Property owner	Transport for NSW		
Property address	Brenan Street, Lilyfield, NSW		
Legal identification (study area)	Part Lot 13 in DP 1256361		
Study area	Approximately 2,500 m <sup>2</sup>		
Current/future site use	Open space (garden) use with restricted public access, with a pedestrian footpath and footbridge.		
Local authority	Inner West Council		
Zoning information	Port and Employment Zone (Sydney Regional Environmental Plan No. 26 – City West)		

It is noted that the site/audit boundary has been amended since completion of the WSP (2021<sup>1</sup>) detailed site investigation (DSI). The DSI boundary was based on the anticipated construction disturbance footprint. However, JHCPB has advised that areas within the eastern, southern, south-western and northern portions of the site were not disturbed and as such, do not form part of the project area requiring handback to TfNSW. The current site/audit area and DSI boundary are shown on Figure 2 (Appendix A).

## 2.2 SITE HISTORY SUMMARY

The site comprised vacant land until sometime between 1951 and 1961, following which it was utilised for apparent commercial purposes until the 1990s. Commercial uses included storage, manufacture and assemble of prefabricated building products, plastic manufacture, and dye and tool making. In 1992, the site was used as a car repair workshop, which was demolished in 1997. The site remained vacant until commencement of the WCX3B project works during late-2019/early-2020.

Further information pertaining to the history of the site is presented in the WSP (2021) DSI report.

## 2.3 SOILS AND GEOLOGY

A review of the Sydney 1:100,000 scale geological map (sheet 9130, edition 1, 1983) from Resources and Energy data NSW, indicated that the Site is underlain by silty to peaty quartz sand, silt and clay including ferruginous and humic cementation in places with common shell layers.

<sup>&</sup>lt;sup>1</sup> WSP (2021) WestConnex Stage 3B – Rozelle Interchange – Sub Site Area – Pigtail Bridge, Detailed Site Investigation, ref: PS117368-CLM-REP-PT RevC, 17 March 2021

Subsurface conditions encountered at the site during the WSP (2021a) DSI comprised silty sand fill material with some gravel up to 1.5 m below ground level (bgl), overlying reworked natural sandy clay and/or imported WCX3B tunnel spoil (sand/clayey sand), overlying sandy clay/silty clay alluvium material. Sandstone bedrock was encountered during borehole drilling at a depth of approximately 5.8 mbgl in the south-western portion of the site. Fill material was observed to contain occasional anthropogenic inclusions, including plastic, ceramic and bricks.

## 3 SUMMARY OF CONTAMINATION AND REMEDIATION

## 3.1 SUMMARY OF CONTAMINATION STATUS

Fill material containing PAHs and asbestos (fibrous asbestos/asbestos fines) has been retained on the site beneath soil or hardstand capping layers. These contaminants are present in soil at concentrations that may present a potential risk to human health should exposure via dermal contact, ingestion and/or inhalation occur.

Soil investigation locations at which exceedances of human health criteria have previously been identified are shown on Figure 4 (Appendix A).

## 3.2 REMEDIATION ACTIVITIES

The remediation activities undertaken at the site comprised placement of a marker layer and/or soil capping layer, in addition to the removal and off-site disposal of contaminated material excavated to facilitate WCX3B construction. The marker layer provides the trigger for management controls (refer Section 5.2).

The remedial capping specifications are described in the following sections. The remediation areas are shown on Figure 3 (Appendix A).

### 3.2.1 GENERAL MASSED PLANTING

This capping methodology comprised:

- placement of a basal layer of permeable coloured synthetic geotextile material in unsealed areas of the site; and
- installation of a capping layer across the area comprising validated soil and a mulch layer (generally minimum 300 mm thickness, refer to Section 5.1 for further detail) with planting at the site surface.

### 3.2.2 NORTHERN BATTER MASSED PLANTING

The Northern Batter area comprises an area of sloping land adjoining the Sydney Light Rail corridor in the north-west of the site. Chain-wire fence restricting access to the batter from the site has been installed at the toe of the batter. Due to the approximate 45° batter grade, erosion control matting was used instead of geotextile along the Northern Batter. The capping methodology at the Northern Batter comprised:

- installation of a capping layer comprising validated soil;
- placement of erosion control matting over validated soil; and
- installation of a mulch layer (minimum 100 mm thickness).

### 3.2.3 HARDSTAND (FOOTPATH/CYCLEWAY)

This capping methodology comprised concrete pavement in the area comprising the pedestrian footpath. A geotextile layer was not installed prior to laying the concrete in this portion of the site.

## 4 LTEMP IMPLEMENTATION

## 4.1 IMPLEMENTATION OF THE LTEMP

Table 4.1 provides a summary of the responsibilities for the implementation and management of the LTEMP. The list of responsibilities does not replace any regulatory, planning, or licensing responsibilities of the parties in undertaking works at the property. In any instance where an inconsistency arises between this LTEMP and environmental law, the environmental law will take precedence over the LTEMP.

Table 4.1 Responsibilities

STAKEHOLDER	RESPONSIBILITIES			
Property owner (Transport for NSW)	<ul> <li>Provide the LTEMP to the parties responsible for site management and maintenance (if separate to property owner, such as Council and asset/utility owners) and attach the LTEMP to all ground maintenance contracts commissioned for the site.</li> </ul>			
	<ul> <li>Provide the LTEMP to Before You Dig Australia for implementation during intrusive works by asset/utility owners or their contractors.</li> </ul>			
	— Attach a copy of the LTEMP to any lease or contract for sale of the site.			
	<ul> <li>Liaise with Council to include the LTEMP on any Section 10.7 planning certificate (i.e. zoning certificate) applicable to the site.</li> </ul>			
Property owner (Transport for NSW) or delegated authority (e.g. Council)	<ul> <li>Incorporate the LTEMP into any other management plans implemented at the site.</li> </ul>			
	<ul> <li>Review the effectiveness of the LTEMP annually and following any incident or other event that suggests the LTEMP is ineffective.</li> </ul>			
	<ul> <li>Implement and communicate improvements and amendments to the LTEMP as needed.</li> </ul>			
	<ul> <li>Provide sufficient resources, where needed, to comply with the requirements of this LTEMP.</li> </ul>			
	— Brief contractors of the existence of this LTEMP, and their roles within it.			
	— Maintain records of maintenance and/or reports related to the site.			
Council	<ul> <li>Attach a copy of the LTEMP to the Section 10.7 planning certificates.</li> </ul>			
	<ul> <li>Inform TfNSW if any reports are received through the Council Transport Management Centre relating to site.</li> </ul>			
Asset/utility owners Maintenance workers (including Council)	— Comply with the LTEMP, including relevant legislation and guidance (including the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2017 or relevant legislation current at the time of the works) when conducting works at the property.			
	<ul> <li>Inform the owner/occupant if disturbance of impacted soil may occur and/or if potential exposure to impacted soil is identified (e.g. existing containment barrier is compromised) or may result in the future.</li> </ul>			

It is understood that the site will not be occupied by the site owner or leased for future occupation and so the responsibilities of site occupants has not been considered.

This LTEMP is prepared with the assumption that any future works on the site shall be undertaken in accordance with relevant regulations, guidelines and laws current at the date works, in NSW including but not limited to those referred to in Section 1.4.

## 4.2 ENVIRONMENTAL AWARENESS AND TRAINING

All site owners and maintenance workers should be made aware of this LTEMP and the requirements it contains. In particular, maintenance workers should complete the following:

- a site induction;
- familiarisation with the requirements of the LTEMP; and
- environmental emergency response training.

A record of completion of the LTEMP induction should be recorded in the log in Appendix B and a checklist of LTEMP requirements for maintenance workers is presented in Appendix D.

## 4.3 NON-COMPLIANCES AND LTEMP DURATION/REVIEW

Any non-compliance with this LTEMP should be recorded on the non-compliance register in Appendix C2 and communicated to the site owner.

This LTEMP will apply indefinitely or until such a time that a site audit statement can be prepared by a NSW EPA accredited site auditor stating that an EMP is not required for the site.

Review of this LTEMP by the site owner (and other parties where delegated by the site owner) should be conducted every 12 months, and would include but not be limited to the following aspects:

- review non-compliances and corrective actions during the period;
- ensure inspections have been undertaken, including during and subsequent to any maintenance works conducted at the site, in addition to regular inspections to confirm that the capping layer is intact (refer to Table 5.1 for further details);
- ensure maintenance recommended (if any) during inspections and/or intrusive works has been completed;
- review whether proposed changes to land use may conflict with the LTEMP; and
- review and update this LTEMP to meet changes in applicable regulatory requirements.

## 4.4 APPROVAL AND CONSENT REQUIREMENTS

The need for approvals or consent for any maintenance works to be undertaken at the site should be assessed by the contractors undertaking the works.

## 4.5 REGULATORY FRAMEWORK AND ENFORCEMENT

In order for the LTEMP to be effective it must be practical and enforceable. With respect to environmental management of the subject site, the activities identified as needing to be controlled include:

- protection of the health risk of maintenance staff involved in future subsurface works;
- ensuring subsurface works are reinstated to suitable standard for protection of future site users; and
- consideration of environmental risk as part of any future redevelopment of the site.

The WCX3B infrastructure approval<sup>2</sup> requires that "*Contaminated land must not be used for the purpose approved under the terms of this approval until a Site Audit Statement is obtained that declares the land is suitable for that purpose and any conditions on the Site Audit Statement have been complied with." This LTEMP has been prepared to fulfill the conditions of the site audit statement, specifically to facilitate suitability of the site subject to compliance with this LTEMP. The WCX3B infrastructure approval is subject to regulation by the NSW Department of Planning, Industry and Environment.* 

The Environmental Planning and Assessment Act 1979 (EP&A Act) and State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP) provides the primary mechanism for ensuring an LTEMP is enforced with respect to changes in the allowable land uses or material alterations to the site and surrounds. Of the above identified activities, future redevelopment work at the site is significant enough to require consent from the local council (Inner West Council) under the EP&A Act, which provides an avenue for enforcement as Council may require adoption of this LTEMP as a condition of development consent for the site.

The NSW Department of Urban Affairs and Planning (DUAP; now the Department of Planning, Industry and Environment) produced a guidance document titled *Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land* (NSW DUAP, 1998) which also provides guidance for Council or other planning authorities in how to assess if the land is contaminated through applying the NSW EPA investigation processes and guidelines. Along with the Resilience and Hazards SEPP (superseding *State Environmental Planning Policy 55 – Remediation of Land*; SEPP 55), the NSW DUAP (1998) guideline also makes provision for consent authorities to require a site audit statement to be prepared by a NSW EPA accredited site auditor if the consent authority consider it necessary in order for them to make their decision.

With respect to ensuring maintenance staff are protected during works and that the site surface is appropriately restored upon completion it is necessary to rely on the responsibility of TfNSW as the current owner of the site, and by delegation, their facilities management subcontractors. Both these parties have responsibilities under work health and safety (WHS) legislation which will require them to appropriately manage the risks during future subsurface maintenance works. Workers can be protected by provisions of the *Work Health and Safety Act 2011* provided they are notified of the presence of this LTEMP. Under Section 3.1 of the *Work Health and Safety Regulation 2017* a person who has a duty under the regulation to manage risks to health and safety must comply with requirements to manage risk, identify reasonably foreseeable health and safety hazards, eliminate risks to health and safety as far as practicable or if not reasonably practicable then minimise those risks. They must also maintain and review any control measures that are in place to protect worker health and safety. Risk assessment on construction projects is managed at the task level by preparation of work method statements and at the project level by preparation of WHS plans. Therefore, provided there is an adequate method for notification of the presence of the LTEMP, its recommendations can be readily built into the health and safety management of any construction project. Compliance with relevant WHS legislation is mandatory.

## 4.6 PUBLIC NOTIFICATION OF THIS LTEMP

The remediation of this site has been undertaken under the infrastructure approval (SSI 7485) and, under approval condition E182, the site is subject to a site audit. When a site audit statement states that the site is suitable for a particular use if managed in accordance with an EMP, the plan must be attached to the site audit statement and included in the site audit report. As per condition E183 of the infrastructure approval, the Secretary of the NSW Department of Planning and Environment (or nominee) and Inner West Council (Council) are also to be provided a copy of the site audit statement. Council must provide a notification of the existence of the audit on the planning certificate/s for the site issued under section 10.7 of the EP&A Act.

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<sup>&</sup>lt;sup>2</sup> Number SSI 7485.

## 5 RISK MANAGEMENT ACTIVITIES AND CONTROLS

Risk from soil contamination retained on the site may arise when contaminated soils are disturbed, including where the geotextile marker layer and hardstand capping is breached. These risks include:

- potential exposure of workers to contamination via direct contact, ingestion of soil/dust and/or inhalation of dust;
- potential erosion/discharge of contaminated soils to drains and waterways; and
- inappropriate disposal or placement of excavated contaminated soils.

Management controls will be required to be implemented for any ground disturbance activities within areas of retained contamination at the site. The capping management system to be maintained at the site is presented in Section 5.1 and controls for areas of retained contamination are discussed in Section 5.2.

## 5.1 CAPPING DESIGN

The remediation capping constructed at the site is described below and is shown on Figure 3 (Appendix A). A topographic survey and cross-sections showing the final landscaped surface levels and capping thicknesses are included as Appendix E. General cap arrangement drawings showing details of the geotextile, erosion matting (Northern Batter area only) and soil cap construction are presented below.

The pavement capping comprises an impervious layer of concrete, noting that a geotextile layer was not installed below the concrete pavement.

#### Vegetative areas (excluding Northern Batter)

- basal layer of permeable coloured synthetic geotextile material (overlying existing soils); overlain by
- capping layer comprising validated soil and surficial layer (generally minimum 300 mm thickness, refer below) of mulch.

The soil capping layer thickness at the site (excluding the Northern Batter area) is minimum 300 mm, with the exception of two minor areas in the western portion of the site where capping thickness was measured at 266 and 285 mm<sup>3</sup> (refer to Appendix E for surveyed capping thickness).



Figure 5.1 Soil cap construction (excluding the Northern Batter)

<sup>&</sup>lt;sup>3</sup> Section 2, 0.000 m offset, capping thickness 266 mm; Section 7, 0.000 m offset, capping thickness 285 mm (refer Appendix E).

#### Figure 5.2 Geotextile marker layer



#### Northern Batter

- basal capping layer comprising validated soil (overlying existing soils); overlain by
- erosion matting layer; overlain by
- surficial layer (approximately 100 mm thickness) of mulch.



Figure 5.3 Soil cap construction at the Northern Batter

#### Pavement 1997

The pavement capping comprises an impervious layer of concrete. A geotextile layer was not installed below concrete pavement.

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## 5.2 MANAGEMENT CONTROLS

Management controls will be required to be implemented for any ground disturbance activities at the site. The controls for these areas are outlined in Table 5.1 below and in Appendix D.

Given the presence of fill material at the site, the unexpected finds procedure documented in Section 5.3 should also be implemented during works at the site.

All activities/tasks that require the engagement of contractors should be undertaken in accordance with current regulatory requirements, in particular the *Work Health and Safety Act 2011* and the *Work Health and Safety Regulation 2017* (or relevant legislation current at the time of the proposed works).

A summary of the main legislation, planning instruments and guidelines that relate to the management of contaminated land in NSW at the time of preparation of the LTEMP is provided in Section 1.4. This list should be reviewed for currency at the time of any proposed works. The advice of a suitably qualified environmental consultant, the NSW EPA, and/or Council should be sought where there is uncertainty as to the regulatory requirements.

## 5.3 UNEXPECTED FINDS PROCEDURE

An unexpected finds procedure shall be implemented during intrusive works at the site to ensure the health and safety of staff, contractors, and visitors with regards to potential unidentified contamination. The objective of the unexpected finds procedure is to describe procedures minimising exposure of all site users to possible contamination at the site through the development and implementation of the management systems outlined herein. It is the responsibility of the site owner to ensure that each time an action is undertaken, that the action is recorded and signed off.

Typical indicators of contamination include but are not limited to:

- unusual odours;
- stained soil;
- sheens on soil or water;
- unusual colours;
- crystalline or powdery substances;
- presence of drums
- fragments of asbestos containing material; and,
- underground storage tanks.

In the interests of ensuring worker health and safety, and protection of the environment, any unexpected findings should be handled with care including segregation of the area from general site workers and the public and obtaining specialist advice on the handling and disposal of the material.

Where unexpected finds are encountered, the following management measures shall be immediately conducted:

- Cease any further ground disturbance in the area of the find(s).
- Do not remove or unnecessarily disturb the area of the find(s).
- The discoverer of the find(s) will notify workers in the immediate vicinity of the find(s) so that work can be temporarily halted.
- The site owner will be informed of the find(s), including details regarding the location and nature of the find.
- Notify authorities needed to obtain emergency response for any health or environmental concerns (e.g. fire brigade).

- Notify any of the authorities that the site owner is legally required to notify (e.g. NSW EPA, Council).
- Restrict access to the area via placement of barricades to ensure that the area of the find(s) is adequately marked as a no-go area for workers and machinery or further disturbance and that the potential for accidental impact is avoided.
- Where feasible, ensure that any excavation/area of disturbance remains open so that the finds can be recorded and verified. Excavation/area of disturbance may be backfilled if this is necessary to comply with work safety requirements. An excavation/area of disturbance that remains open should only be left unattended if it is safe and adequate protective fencing is installed around it.

Following the immediate response outlined above a contingency plan is to be implemented. The contingency plan for the site should generally include:

- Suitably qualified environmental consultant (or occupational hygienist as appropriate) is to inspect the issue of
  concern and determine the nature of the issue and the appropriate approach to assessing or managing the issue.
- The environmental consultant (or occupational hygienist as appropriate) is to undertake an assessment considered necessary to determine the management strategy for the area. Assessment of occupational, public and environmental risk should be considered, particularly potential explosive or toxic gases, toxic chemicals and buried unexploded ordnance.
- If unexpected contamination is found and remediation action is considered necessary, a remediation strategy for the area is to be prepared by the environmental consultant.
- Excavated material is to be placed back into the excavation or removed from the site. Any material to be removed from site must be placed in labelled skip bins or stockpiled as instructed by the environmental consultant and tested for subsequent disposal to a licenced facility.

Development works in the area of the find(s) may re-commence, if and when outlined by the management strategy, developed in consultation with, and approved by the environmental consultant.

MANAGEMENT CONTROL	PERSON RESPONSIBLE	
MAINTENANCE AND MONITORING		
Visual inspection of capping		
<ul> <li>All surfaces of the site (paved and unpaved) must be visually inspected every 6 months for breaches in containment. The inspection should document the condition of the grass surface or soil cover/planting and also record if any orange geofabric is visible.</li> </ul>	Site owner	
— Grass in good condition Y / N		
— Evidence of soil erosion Y / N		
— Orange geofabric visible Y / N		
<ul> <li>Where deterioration of the grass cover or soil surface/planting is recorded corrective landscape works should be undertaken within a 3-month period.</li> </ul>		
— Where a breach is observed that may result in exposure to residual soil, repairs are to be conducted as soon as practicable.		
Maintenance of capping		
General capping detail	Site owner	
Landscaped areas at the site are summarised below.		
Vegetative areas (excluding Northern Batter)		
— basal layer of permeable coloured synthetic geotextile material (overlying existing soils); overlain by		
— capping layer comprising validated soil and surficial layer (general minimum 300 mm thickness) of mulch.		
Northern Batter		
— basal capping layer comprising validated soil (overlying existing soils); overlain by		
— erosion matting layer; overlain by		
— surficial layer (approximately 100 mm thickness) of mulch.		
Pavement		
— The pavement capping comprises an impervious layer of concrete. A geotextile layer was not installed below concrete pavement.		

MA	NAGEMENT CONTROL	PERSON RESPONSIBLE
Ma		
	Where additional material is required to maintain the capping layer, additional certified virgin excavated natural material (VENM <sup>1</sup> ) or excavated natural material (ENM) shall be imported to the site.	
	If the imported fill requires testing to validate it as suitable, samples should be collected by a suitably qualified environmental consultant and analysed for heavy metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylene and naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAHs), organochlorine and organophosphate pesticides (OCPs and OPPs), polychlorinated biphenyls (PCBs), per- and poly-fluoroalkyl substances (PFAS) and asbestos.	
	If VENM is imported to the site, 1 sample per 250 m <sup>3</sup> or a minimum of 4 samples will be analysed per source site (whichever is greater). If more than 1,000 m <sup>3</sup> is imported to the site, one additional sample shall be obtained per 1,000 m <sup>3</sup> .	
	If ENM is imported to site the material will be tested in accordance with the NSW EPA resource recovery exemption for ENM.	
Sho be t <i>Lar</i> 4 N and PFA	build additional material be required to be imported to the site for landscaping purposes (such as topsoil, mulch, compost, etc.), these materials should tested to validate as suitable for the site use. Sampling should be conducted at a frequency consistent with Table 3 of NSW EPA (2022) <i>Contaminated ad Guidelines: Sampling design part 1 – application</i> for volumes <200 m <sup>3</sup> and as per <i>Column 3 – Minimum number of samples for 95% UCL</i> of Table SW EPA (2022). Samples will be analysed for heavy metals, TRH, BTEXN, PAHs, OCPs and OPPs, PCBs, PFAS, asbestos, foreign materials //or pathogen indicators (as required). Results will be compared to the applicable human health criteria outlined in the NEPM (2013), HEPA (2020) AS NEMP 2.0, NSW EPA <i>The compost order 2016</i> and/or Australian Standard 4454:2012 <i>Composts, soil conditioners and mulches</i> .	
	MINOR WORKS (landscaping, subsurface works unlikely to breach cap/marker layer)	
Du	ring minor subsurface works the following tasks must be undertaken:	Site owner
	The site owner must inform all personnel who may undertake subsurface work that PAHs and asbestos may be present within soil across the site.	Maintenance workers
	The extent of the geotextile marker layer must be communicated to all personnel who may undertake subsurface works.	
—	A safe work method statement (SWMS) must be prepared for the work.	
—	Appropriate work health and safety measures must be developed and implemented to minimise risk of exposure to contamination.	
The	SWMS shall include the following contamination control measures (as a minimum):	
—	employ confined space entry procedures for excavations and utility pits prior to entry;	
	workers wear appropriate personal protective equipment (PPE), e.g. gloves, eye and respiratory protection, disposable overalls which should be worn and disposed of appropriately at completion of each work shift, and use of a boot wash;	

MANAGEMENT CONTROL	PERSON RESPONSIBLE
<ul> <li>workers avoid creating dust (e.g. use of light water sprays, avoid working in hot and windy conditions). Where dust is unavoidable wear respiratory protection;</li> </ul>	
— workers do not eat, drink, or smoke during works;	
— workers wash hands and face immediately after works;	
<ul> <li>brush/wash excavation tools at end of each work shift. Ensure surplus materials returned to stockpile areas and avoid spreading potentially contaminated materials across site;</li> </ul>	
— waste materials are managed so as not to generate dust;	
<ul> <li>during excavation works (including stormwater system maintenance works) all soil/fill materials should be considered to be potentially contaminated with PAHs and asbestos irrespective of visual/olfactory observations;</li> </ul>	
<ul> <li>all stockpiled soil/fill materials excavated from the site be placed on sealed ground with bunds and sediment retention measures put in place immediately after the stockpile is formed; and</li> </ul>	
<ul> <li>potentially contaminated stockpiled soil must be sampled, assessed and classified for disposal off-site at an appropriately licensed waste facility by an approved contractor in accordance with the requirements of NSW EPA (2014) waste classification guidelines.</li> </ul>	
MAJOR WORKS (major civil/utility works likely to breach cap/marker layer)	
More stringent management requirements to those listed above are a possible requirement of the Planning Authority (e.g. Council) as part of the Development Application process. These requirements may include investigation or remediation of the PAH and asbestos contaminated soils.	Maintenance workers
Management controls for an observed breach of containment (hardstand or landscaped areas) will include immediate temporary cover of the affected	Site owner
area with clean material or geofabric (where practicable) and fencing off of the area. For repair of the containment/cap all subsurface maintenance controls are to apply.	Maintenance workers
During any planned works on the site that breaches the cap it is important that the planning documentation be reviewed, and the progress and status on completion of the works should be inspected by the site owner or representative. The inspections are to be carried out on a daily basis during works and at completion of works. The inspector(s) shall note at least:	
— Date and personnel on site;	
— Activities being undertaken;	
— That works are being undertaken in accordance with an approved SWMS;	
<ul> <li>Level of compliance with the SWMS; and</li> </ul>	

MANAGEMENT CONTROL	PERSON RESPONSIBLE								
— Condition of all environmental controls.									
in the event of a non-conformance this information will be documented, and corrective actions implemented in a timely manner. Where no issues are identified the record should be kept for reference purposes.									
Should contaminated material be disturbed, this material shall be disposed off-site under appropriate waste classification or be placed/maintained beneath the geotextile marker layer and/or hardstand cap. The marker layer and/or hardstand cap shall be subsequently reinstated as per the procedure outlined below.									
Upon completion of work that breaches the cap, validation of the containment/recapping shall be conducted by a suitably qualified environmental consultant. Records demonstrating that the re-capping has been adequately installed to the correct thickness and integrity shall be maintained these records should include details of material validation and location of the re-capping. The following steps must be followed:									
1 Temporarily cover and fence area;									
2 Notify site owner;									
3 Engage contractor to repair hardstand or capping;									
4 Site owner to engage a suitably qualified environmental consultant if repair to capping (geofabric and clean soil) is required;									
5 Contractor to engage surveyor if repair to capping (geofabric and clean soil) is required to demonstrate that a sufficient thickness of material has been reinstated;									
6 Environmental consultant to provide validation letter to site owner; and									
7 Site owner to inspect and document that all hardstand areas have been adequately reinstated.									
REPORTING REQUIREMENTS									
Annual capping inspection report to be provided to site owner.	Site owner								
	Maintenance workers								
Importation suitability report (as required) to be provide to site owner prior to material import.	Site owner								
	Maintenance workers								
<sup>1</sup> The Protection of the Environment Operations Act 1997 (POEO Act) defines virgin excavated natural material (VENM) as 'natural material (such as clay, gravel, sand so	il or rock fines): (a) that has								

<sup>1</sup> The *Protection of the Environment Operations Act 1997* (POEO Act) defines virgin excavated natural material (VENM) as 'natural material (such as clay, gravel, sand, soil or rock fines): (a) that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities and (b) that does not contain any sulfidic ores or soils or any other waste, and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved for the time being pursuant to an EPA Gazettal notice.'

## 6 INCIDENT AND EMERGENCY PROCEDURES

Emergency procedures will be detailed and explained at the start up induction for any works being undertaken. These will include:

- the name(s) of the first aider/s on site;
- the location of first aid kits and fire extinguishers;
- emergency procedure details for the site, including contact details for emergency services and the nearest hospital;
- site addresses details and map with route to nearest hospital highlighted; and
- location of the site assembly area.

## 6.1 INCIDENT/EMERGENCY RESPONSE

All unplanned events, irrespective how minor, shall be reported at the first opportunity to the site owner (and other parties where delegated by the site owner). In the event that an environmental incident occurs which results in non-compliance with environmental requirements the incident will be classified as an emergency.

Any pollution or other environmental incident which occurs should be immediately managed and contained as much as can be safely done. The severity of the incident should be assessed and notification made to the appropriate parties:

- The site owner (and other parties where delegated by the site owner) should be notified of all environmental incidents.
- Appropriate regulatory authorities, such as the NSW EPA, SafeWork NSW, Council etc., should be notified as required.

Emergency contacts are listed in Table 6.1.

Table 6.1Emergency contacts

PERSON/AGENCY	PHONE NUMBER
Site owner (Transport for NSW)	131 782
EMERGENCY SERVICES	
Emergency	000
Police – non-emergency (Balmain Police Station)	+61 2 9556 0624
Ambulance – non-emergency (Rozelle Ambulance)	+61 2 9320 7777
NSW Fire and Rescue – non-emergency (Balmain Fire Station)	+61 2 9818 2348
Balmain Hospital	+61 2 9395 2111
OTHER	
Inner West Council	(02) 9392 5000
SafeWork NSW	13 10 50

## 6.2 COMPLAINTS AND ENVIRONMENTAL INCIDENT REGISTER

The receipt of complaints will be handled and responded to according to Transport for NSW policy.

The purpose of the complaints and environmental incident register is to maintain a register of complaints from nearby residents or concerned parties, which will include a record of any action taken with respect to the complaints.

The complaints and environmental incident register is required to be completed immediately following the receipt of any complaints associated with works undertaken at the site. Written complaints should be addressed or acknowledged within five days of the complaint being received. Complaints made by telephone or in person should be addressed or acknowledged within two days of receipt. Complaints and incidents will be forwarded to Transport for NSW.

A copy of the complaints and environmental incident register is included in Appendix C.

## LIMITATIONS

#### SCOPE OF SERVICES

This environmental site assessment report (the report) has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the client and WSP (scope of services). In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

#### RELIANCE ON DATA

In preparing the report, WSP has relied upon data, surveys, analyses, designs, plans and other information provided by the client and other individuals and organisations, most of which are referred to in the report (the data). Except as otherwise stated in the report, WSP has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report (conclusions) are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. WSP will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to WSP.

#### ENVIRONMENTAL CONCLUSIONS

In accordance with the scope of services, WSP has relied upon the data and has not conducted any environmental field monitoring or testing in the preparation of the report. The conclusions are based upon the data and visual observations and are therefore merely indicative of the environmental condition of the site at the time of preparing the report, including the presence or otherwise of contaminants or emissions.

Within the limitations imposed by the scope of services, the assessment of the site and preparation of this report have been undertaken and performed in a professional manner, in accordance with generally accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied, is made.

#### REPORT FOR BENEFIT OF CLIENT

The report has been prepared for the benefit of the client and no other party. WSP assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of WSP or for any loss or damage suffered by any other party in relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own enquiries and obtain independent advice in relation to such matters.

#### OTHER LIMITATIONS

WSP will not be liable to update or revise the report to take into account any events, emergent circumstances or facts occurring or becoming apparent after the date of the report.

The scope of services did not include any assessment of the title to nor ownership of the properties, buildings and structures referred to in the report, nor the application or interpretation of laws in the jurisdiction in which those properties, buildings and structures are located.

# **APPENDIX A** FIGURES



## wsp

#### John Holland I CPB Contractors Rozelle Interchange – Pigtail Bridge



Image source: SixMaps

Figure 1 – Site locality plan



Image source: nearmap (3 Oct 2023)

Site boundary

DSI investigation area





Image source: nearmap (3 Oct 2023)

Approximate site boundary

--- Fencing/balustrade

Soil capping remediation area – northern batter (no geotextile)

Geotextile and soil capping

remediation area (massed planting)





Landscaping only disturbed (reinstated to existing condition)



Figure 3 – Site landform and remediation areas

## vsp



Image source: nearmap (3 Oct 2023)

Site boundary

Soil investigation location



Figure 4 – Locations of identified soil contamination during investigations

# **APPENDIX B** LTEMP INDUCTION REGISTER



## **B1 LTEMP INDUCTION REGISTER**

The purpose of the induction register is to acknowledge acceptance and compliance with the procedures outlined within this LTEMP by signing the attached log. Copies of this document must be made available for review and be readily available at the job site.

The induction register is required to be completed by each person inducted into the LTEMP.

DATE	PERSON	COMPANY	TASK/JOB	POSITION	SIGNATURE

Project No PS117368 Long Term Environmental Management Plan Pigtail Bridge Part Lot 13 DP1256361 John Holland CPB WSP November 2023 Page B-1

# **APPENDIX C** COMPLAINTS AND ENVIRONMENTAL INCIDENT REGISTER



## C1 COMPLAINTS AND ENVIRONMENTAL INCIDENTS REGISTER

DATE & TIME	TYPE OF COMMUNICATION	NAME, ADDRESS, & CONTACT NUMBER OF COMPLAINANT	NATURE OF COMPLAINT	RESPONSE/ CORRECTIVE ACTION	DATE OF RESPONSE	DATE COMPLAINANT NOTIFIED OF RESPONSE TAKEN	SIGNATURE/ POSITION
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Project No PS117368 Long Term Environmental Management Plan Pigtail Bridge Part Lot 13 DP1256361 John Holland CPB WSP November 2023 Page C-1

## C2 NON-COMPLIANCE REGISTER

DATE & TIME	DOCUMENTED BY	DETAILS OF NON- COMPLIANCE	DATE & TIME SITE OWNER NOTIFIED	OTHER PARTIES NOTIFIED	RESPONSE/ CORRECTIVE ACTION	DATE OF RESPONSE	DATE & TIME SITE OWNER NOTIFIED OF RESPONSE	SIGNATURE/ POSITION

# **APPENDIX D** SUMMARY OF LTEMP REQUIREMENTS FOR MAINTENANCE WORKERS



## D1 SUMMARY OF LTEMP FOR MAINTENANCE WORKERS

SUMMARY MANAGEMENT PLAN FOR MAINTENANCE WORKERS	
MINOR WORKS (landscaping, subsurface works unlikely to breach cap/marker layer)	
Including weeding, gardening, cleaning and general maintenance activities.	
No specific controls required, providing the works do not significantly disturb the surfacing and underlying fill materials, and do not break any hardstand or compromise surface covering in landscaped areas.	
MAJOR WORKS (major civil/utility works likely to breach cap/marker layer)	1
Including any activities that significantly disturb the surface ground cover and/or geotextile marker layer and expose the u fill materials, or break the hardstand surface or compromise surface covering in landscaped areas.	nderlying
Control measures are required to be implemented.	
All site workers and subcontractors to complete a site induction through Transport for NSW prior to commencing any major works at the site.	
During surface penetration	
Site personnel should use appropriate personal protective equipment (PPE) including:	
— Long sleeved shirt and long pants	
— P2 respirator or P2 dust mask	
— Protective gloves	
— Other PPE required under the WHS plan for the site works.	
Implement good personal hygiene, including:	
— No eating, drinking, or smoking during works	
— Avoid contact with soil (wear gloves)	
— Wash hands and clothes after work	
— Wash hands before eating, drinking or smoking.	
Implement dust control measures – this includes dampening of fill materials and any other exposed soil prior to and during excavation works.	
Classify and dispose of any soils excavated from beneath the capping layer or any other surplus soils in accordance with the NSW EPA (2014) <i>Waste Classification Guidelines</i> .	
Re-instate the geotextile and surface capping soils or hardstand surfaces following subsurface maintenance works.	
Validate any imported fill materials required in accordance with NEPM (2013).	
Transport for NSW representative contact details:	
Name:	
Position:	
Phone:	
E-mail:	

# APPENDIX E SITE SURVEYS AND CROSS-SECTION



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E	DEPTH	-0.305 -0.315 -0.351	-0.357 -0.368 -0.372	-0.366 -0.391	-0.457	-0.454	-0.410 -0.402 -0.378	-0.342	-0.319 -0.308	-0.306	-0.302	0000
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E	DEPTH	-0.323 -0.317 -0.312 -0.313	-0.301 -0.304 -0.355 -0.398 -0.398 -0.380 -0.460	-0.617 -0.748 -0.717 -0.675 -0.486 -0.471		-0.307	-0.473 -0.559 -0.363 -0.397 -0.394
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F	OFFSET	0.228 1.000 2.000 3.000	3.244 3.318 4.000 5.000 6.000 6.385	8.000 9.000 10.000 11.000 11.064	13.000 14.000 15.000	16.000 17.000 18.000	19.000 20.000 21.000 22.000 22.409
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DEPTH		-0.312	-0.368	-0.302	-0.374	-0.502	-0.654	-0.606	-0.534	-0.409	-0.300	-0.305	-0.335	-0.352	-0.371	-0.325	-0.302	-0.369	-0.397	-0.378	-0.367	-0.355	-0.330	-0.351	-0.379	-0.321	-0.368	-0.367	
LANDSCAPING MARKER LAYER		2.097	2.074	2.219	2.319	2.403	2.459	2.672	2.836	3.015	3.150	3.168	3.161	3.147	3.150	3.221	3.266	3.214	3.202	3.190	3.168	3.168	3.217	3.194	3.138	3.113	3.072	3.086	
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E	DEPTH		-0.314	-0.300	-0.328	-0.391	-0.355	-0.314	-0.306	-0.316	-0.323	-0.357	-0.393	-0.397	-0.396	-0.386	-0.318	-0.322	-0.382	-0.371	-0.317	-0.339	-0.377
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≡	DEPTH	-0.317	-0.390	-0.364	-0.338	-0.327	-0.326	-0.322	-0.323	-0.313	-0.305	-0.318	-0.306	-0.402	-0.424
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-		1.823	2.051	2.294	2.536	2.588	2.632	2.793	2.957	3.045	3.140	3.245	3.308	3.144	3.157
=	OFFSET	0.000	1.022	2.022	3.022	3.939	5.089	6.523	7.925	8.558	9.300	10.226	10.652	11.846	12.519
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-Nov-	SERIAL NUMBER					MARKER LA	YER THICKNESS VARIES			WestCo	onnex	SF	PTEM
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## LONG SECTION 7

Centreline Data																												
Y = 6250313.789														_														
ONG SECTION 7X = 330639.629																											<b>—</b> —	_
Z = 2.419	-				$\searrow$																							
DATUM RL -0.500														_														
CURRENT FINISH SURFACE LEVEL	2.419	2.769	2.847	2.859	1.868	2.213	3.379 3.488	3.506	3.562	3.655	3.855	4.042	4.217	4.169	3.094	3.170	3.266	3.410	3.491 3.478	3 570	3.613	3.642	3.650	3 654	3.616	3.598	3.578	2 166
DEPTH	-0.285	-0.383	-0.360	-0.389	-0.313											-0.306	-0.338	-0.373	-0.408	0.330	-0.312	-0.376	-0.371	-0.408	-0.355	-0.397	-0.402	0.275
LANDSCAPING MARKER LAYER	2.134	2.386	2.487	2.470	1.556											2.864	2.928	3.037	3.082 3.076	3 240	3.301	3.266	3.279	3 246	3.261	3.200	3.176	100 6
OFFSET	0.000	2.167	3.694	5.690	8.389	9.642	13.216 14.342	16.506	18.338	21.493	24.229	26.565	29.153	30.534	35.761	39.325	42.101	44.945	47.741 48.649	51 102	52.534	54.641	58.824	61.877	65.625	68.786	69.926	70 RN1

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	-0.5.0	-0.433	-0.355	-0.311	-0.384	-0.459	-0.479	-0.533	-0.577	-0.322	-0.322					E
0000	- A0.0	2.838	2.835	2.688	2.702	2.599	2.575	2.429	2.418	2.629	1.972					
1000	1 7.001	77.306	78.947	80.954	81.545	83.218	83.720	85.278	86.466	87.347	90,226					F
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