

Technical Paper 8

Contamination

Sydney Metro – Western Sydney Airport

Technical Paper 8: Contamination

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Glossary and terms of abbreviation

Term	Definition
A	
ACM	Asbestos containing material
AEC	Area of environmental concern
AFFF	Aqueous film forming foam
AHD	Australian height datum
ANZECC	Australian and New Zealand Environment and Conservation Council
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
ANZAST	Australian and New Zealand and Australian State and Territory Governments
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure 2013
AASS	Actual ASS
ASS	Acid sulfate soil
ASSMAC	Acid Sulfate Soils Management Advisory Committee
ASSMP	Acid sulfate soil management plan
AST	Above ground storage tank
B	
bgl	Below ground level
BTEX	Benzene, toluene, ethylbenzene and xylenes
C	
CEMF	Construction environmental management framework
CEMP	Construction environmental management plan
CLM Act	<i>Contaminated Land Management Act 1997</i>
CoPC	Contaminant of potential concern
CSM	Conceptual site model
D	
DECC	Former NSW Department of Environment and Climate Change (now OEH)
DECCW	NSW Department of Environment, Climate Change and Water (formerly DECC, but now OEH)
DIRD	Department of Infrastructure, Regional Development
DITRDC	Department of Infrastructure, Transport, Regional Development and Communications
DP	Deposited plan
DUAP	NSW Department of Urban Affairs and Planning
E	
EC	Electrical conductivity
EIL/ESL	Ecological investigation and screening levels
ENM	Excavated natural material
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EPA	Environment Protection Authority (NSW Government)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
EPL	Environment protection licence

Term	Definition
G	
GIL	Groundwater investigation level
H	
HEPA	Heads of EPAs Australia and New Zealand
HIL	Health investigation level
HSL	Health screening level
K	
kL/day	Kilolitres per day
km	Kilometres
L	
LAA	Licensed asbestos assessor
L/s/km	Litres per second per km
LEP	Local environmental plan
LGA	Local government area
LOR	Limit of reporting
LTEMP	Long Term Environmental Management Plan
M	
m/day	Metres per day
mg/L	Milligrams per litre
mg/kg	Milligrams per kilogram
µg/L	Micrograms per litre
µS/cm	Microsiemens per centimetre
N	
NEPC	National Environment Protection Council
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NSW	New South Wales
NSW DEC	NSW Department of Environment and Conservation
NSW DUAP	NSW Department of Urban Affairs and Planning
NSW EPA	NSW Environment Protection Authority
NSW OEH	NSW Office of Environment and Heritage
O	
OCPs	Organochlorine pesticides
OEMP	Operational environmental management plan
OPPs	Organophosphorus pesticides
OTC	Overseas Telecommunications Radio Station
P	
PAHs	Polycyclic aromatic hydrocarbons
PASS	Potential ASS
PCBs	Polychlorinated biphenyls
PFAS	Per- and poly- fluoroalkyl substances
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
PSI	Preliminary site investigation

Term	Definition
R	
RAP	Remedial Action Plan
S	
SAR	Site Audit Report
SAS	Site Audit Statement
SAQP	Sampling, Analysis and Quality Plan
SEARs	Secretary's Environmental Assessment Requirements
SEPP 55	State Environment Planning Policy No. 55 – Remediation of Land
SVOC	Semi-volatile organic compounds
SWL	Standing water level
SWMP	Soil and Water Management Plan
T	
TPH	Total petroleum hydrocarbon
TRH	Total recoverable hydrocarbon
U	
UPSS	Underground petroleum storage systems
UST	Underground storage tank
V	
VENM	Virgin excavated natural material
VHC	Volatile halogenated compounds
VOC	Volatile organic compounds

Executive Summary

Sydney Metro – Western Sydney Airport (the project) would be located within the Penrith and Liverpool Local Government Areas and would involve the construction and operation of a new metro railway line around 23 kms in length between the T1 Western Line at St Marys in the north and the Western Sydney Aerotropolis in the south. This would include a section of the alignment which passes through and provides access to Western Sydney International (Nancy-Bird Walton) Airport (hereafter referred to as Western Sydney International).

The project is characterised into components that are located outside Western Sydney International (off-airport) and components that are located within Western Sydney International (on-airport), to align with their different planning approval pathways required under State and Commonwealth legislation.

This technical paper has documented the potential impacts of the project from contamination, salinity and acid sulfate soils (ASS). Potential existing areas of contamination were identified within the off-airport construction footprint that could have an adverse impact on human or ecological health if disturbed during construction or remain during operation of the project. The sources of contamination included past industrial land uses, former dry cleaners and service stations, landfills, defence activities, illegal waste dumping, fuel, oil or chemical storage and use and historical use of hazardous building materials.

The off-airport construction footprint has also been ranked as either high, medium or low risk based on the likelihood of contamination, the project construction and the preliminary conceptual site model (CSM). Areas of high and medium risk were identified in numerous parts of the construction footprint.

Previous investigations described in the Western Sydney Airport Remediation Action Plan (RAP) (Department of Infrastructure and Regional Development [DIRD], 2019) identified asbestos in soil in many areas of Western Sydney International, including within the on-airport construction footprint. The Western Sydney Airport RAP (DIRD, 2019) describes the remediation strategy to be adopted during the development of the Western Sydney International to address the impacted areas identified in previous investigations or encountered during construction. It is anticipated that remediation of the Western Sydney International Stage 1 Construction Impact Zone would be complete prior to construction of the project.

Construction and operational activities could also result in new soil, surface water or groundwater contamination from spills from plant and equipment. Spoil management during construction if not managed appropriately could also create adverse impacts. Potentially contaminated groundwater extracted during construction and operation may also require management via treatment or disposal to an appropriately licensed facility.

Areas of potential high salinity and known salinity impacts and potential inland ASS were identified in several areas of the construction footprint on and off-airport. Disturbance of saline soils and ASS could cause adverse impacts to receiving environments from runoff if not managed appropriately.

A Construction Environmental Management Framework (CEMF) (Appendix F of the Environmental Impact Statement) describes the approach to environmental management, monitoring and reporting during construction. Specifically, it lists the requirements to be addressed by the construction contractor in developing the construction environmental management plan (CEMP), sub-plans, and other supporting documentation for each specific environmental aspect.

The project would be designed, constructed and operated to achieve the following performance outcomes:

- Contamination risks to human health and ecological receivers are minimised through effective management of existing contaminated land.
- Contaminated land and soil within the footprint of the project is remediated, where required, to ensure the land is suitable for the intended future land use.
- Impacts on aquatic environments from the disturbance of ASS are mitigated.

These performance outcomes would be addressed through the CEMP which will be prepared in line with the CEMF and include additional measures as outlined in this technical paper.

Mitigation measures have been recommended for the project which comprise further targeted contamination, soil salinity and inland acid sulfate soil investigations prior to construction. Remediation works, where required in the on-airport construction footprint, would be undertaken in accordance with a project specific RAP (Sydney Metro RAP). The Sydney Metro RAP would be prepared in a manner consistent with the Western Sydney Airport RAP (DIRD, 2019) to the extent practicable, and would be applied to any contamination encountered by Sydney Metro that has not been remediated by Western Sydney Airport.

Mitigation measures during construction would include an unexpected finds protocol. Post construction inspections of the non-operational construction footprint by a contaminated lands consultant should be undertaken and investigation or remediation undertaken if assessed as required to facilitate future land uses.

Mitigation measures for the prevention of contamination including spill prevention, spoil and stockpile management, spoil management and erosion controls have also been outlined.

Groundwater investigations and modelling during detailed design would be undertaken to confirm the requirement for minimising the potential for salinity impacts from groundwater level changes and to assess the groundwater quality and treatment requirements.

Environmental performance during operation of the project would be managed by the implementation of an operational environmental management plan or system. The plan or system would be prepared to be consistent with the Airport Rail Integration Deed for the project, the Airport Plan (as varied) and the Critical State Significant Infrastructure conditions of approval and would apply consistently to the on-airport and off-airport components of the project.

1 Introduction

1.1 Project context and overview

The Greater Sydney Region Plan (Greater Sydney Commission, 2018a) sets the vision and strategy for Greater Sydney to become a global metropolis of three unique and connected cities; the Eastern Harbour City, the Central River City and the Western Parkland City. The Western Parkland City incorporates the future Western Sydney International (Nancy-Bird Walton) Airport (hereafter referred to as Western Sydney International) and Western Sydney Aerotropolis (hereafter referred to as the Aerotropolis).

Sydney Metro – Western Sydney Airport (the project) (see Figure 1-1) is identified in the Greater Sydney Region Plan as a key element to delivering an integrated transport system for the Western Parkland City. The project would be located within the Penrith and Liverpool Local Government Areas (LGAs) and would involve the construction and operation of a new metro railway line around 23 kilometres in length between the T1 Western Line at St Marys in the north and the Aerotropolis in the south. This would include a section of the alignment which passes through and provides access to Western Sydney International.

The project is characterised into components that are located outside Western Sydney International (off-airport) and components that are located within Western Sydney International (on-airport), to align with their different planning approval pathways required under State and Commonwealth legislation.

1.2 Key project features

Key operational features of the project are shown on Figure 1-1 and would include:

- around 4.3 kilometres of twin rail tunnels (generally located side by side) between St Marys (the northern extent of the project) and Orchard Hills
- a cut-and-cover tunnel around 350 metres long (including tunnel portal), transitioning to an in-cutting rail alignment south of the M4 Western Motorway at Orchard Hills
- around 10 kilometres of rail alignment between Orchard Hills and Western Sydney International, consisting of a combination of viaduct and surface rail alignment
- around two kilometres of surface rail alignment within Western Sydney International
- around 3.3 kilometres of twin rail tunnels (including tunnel portal) within Western Sydney International
- around three kilometres of twin rail tunnels between Western Sydney International and the Aerotropolis Core
- six new metro stations:
 - four off-airport stations:
 - St Marys (providing interchange with the T1 Western Line)
 - Orchard Hills
 - Luddenham Road
 - Aerotropolis Core
 - two on-airport stations:
 - Airport Business Park Station
 - Airport Terminal Station
- grade separation of the track alignment at key locations including:
 - where the alignment interfaces with existing infrastructure such as the Great Western Highway, M4 Western Motorway, Lansdowne Road, Patons Lane, the Warragamba to

Prospect Water Supply Pipelines, Luddenham Road, the future M12 Motorway, Elizabeth Drive, Derwent Road and Badgerys Creek Road

- crossings of Blaxland Creek, Cosgroves Creek, Badgerys Creek and other small waterways to provide flood immunity for the project
- modifications to the existing Sydney Trains station and rail infrastructure at St Marys (where required) to support interchange and customer transfer between the new metro station and the T1 Western Line
- a stabling and maintenance facility and operational control centre located to the south of Blaxland Creek, to the east of the project alignment and to the north of Patons Lane
- new pedestrian, cycle, park-and-ride and kiss-and-ride facilities, public transport interchange infrastructure, road infrastructure and landscaping as part of the station precincts.

The project would also include:

- turnback track arrangements (turnbacks) at St Marys and Aerotropolis Core to allow trains to turn back and run in the opposite direction
- additional track stubs to the east of St Marys Station and south of the Aerotropolis Core Station to allow for potential future extension of the line to the north and south respectively without impacting future metro operations
- an integrated tunnel ventilation system including services facilities at Claremont Meadows and at Bringelly
- all operational systems and infrastructure such as crossovers, rail sidings, signalling, communications, overhead wiring, power supply, lighting, fencing, security and access tracks/paths
- retaining walls at required locations along the alignment
- environmental protection measures such as noise barriers (if required), on-site water detention, water quality treatment basins and other drainage works.

1.2.1 Off-airport project components

The off-airport components of the project would include the track alignment and associated operational systems and infrastructure north and south of Western Sydney International, four metro stations, the stabling and maintenance facility, two service facilities and a tunnel portal.

1.2.2 On-airport project components

The on-airport components of the project would include the track alignment and associated operational systems and infrastructure within Western Sydney International, two metro stations and a tunnel portal.

The key project features and the design development process are described in more detail in Chapter 7 (project description – operation) of the Environmental Impact Statement.

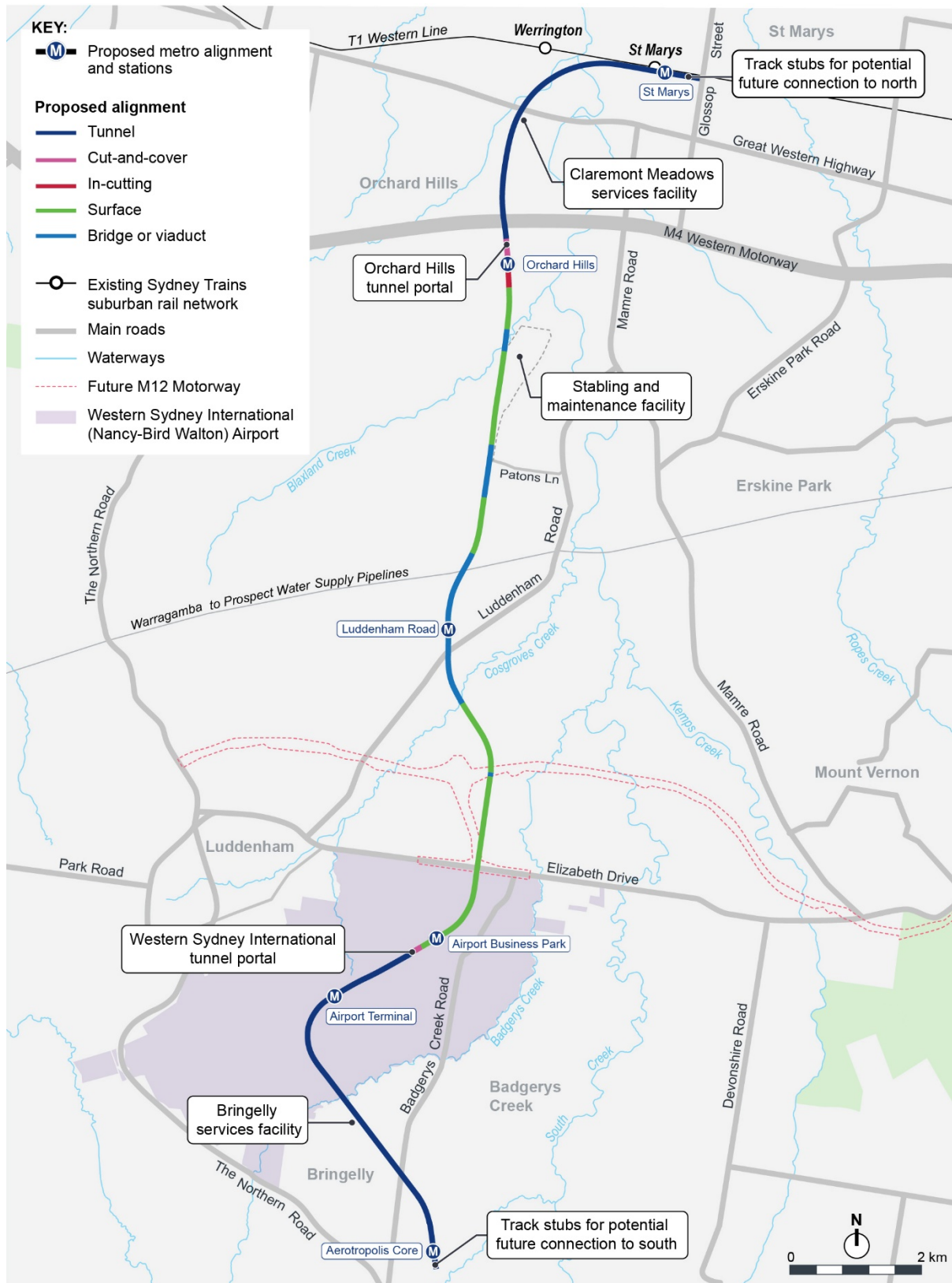


Figure 1-1 Project alignment and key features

1.3 Project construction

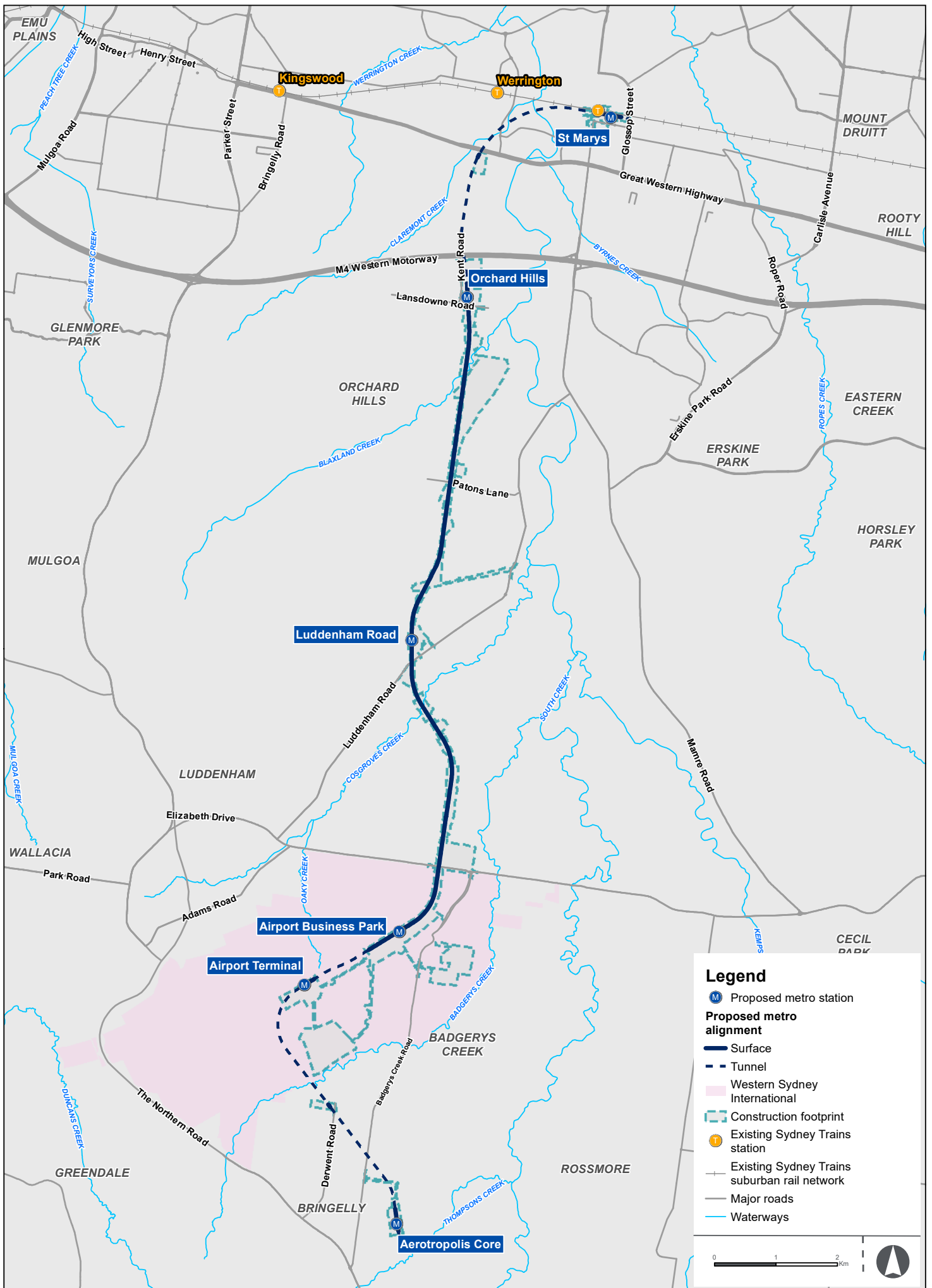
Construction of the project would involve:

- enabling works
- main construction works, including:
 - tunnelling and associated works
 - corridor and associated works
 - stations and associated works
 - ancillary facilities and associated works
 - construction of ancillary infrastructure including the stabling and maintenance facility
- rail systems fitout
- finishing works and testing and commissioning.

These activities are described in more detail in Chapter 8 (project description – construction) of the Environmental Impact Statement.

The construction footprint for the project is shown on Figure 1-2.

Construction of the project is expected to commence in 2021, subject to planning approval, and take around five years to complete. An overview of the construction program is provided in Chapter 8 (project description – construction) of the Environmental Impact Statement.



Construction footprint overview

Figure 1-2

1.4 Purpose of this Technical Paper

The purpose of this technical paper is to:

- identify areas of potential existing land contamination, soil and groundwater salinity and acid sulfate soils (ASS) within the study area (refer to Section 1.6)
- assess the potential contamination source-pathway-receptor (S-P-R) linkages based on the construction and operation of the project in a CSM
- assess the potential construction impacts related to the disturbance of existing contamination, salinity and ASS
- assess where further detailed site investigations (DSIs) would be required to assess contamination prior to construction and to identify any other mitigation measures required during construction
- assess the potential operational impacts related to contamination, salinity and ASS
- define mitigation measures to prevent or reduce operational impacts
- address the Secretary's Environmental Assessment Requirements (SEARs) for the off-airport components of the project
- address the Commonwealth Environment Minister assessment requirements for on-airport components of the project.

This technical paper, Technical Paper 8 – Contamination, is one of a number of technical documents that forms part of the Environmental Impact Statement. The purpose of this technical paper is to provide a contamination assessment to address the requirements outlined in in Section 1.4.1. Section 1.6 then provides an overview of the structure of this technical paper.

1.4.1 Assessment requirements

The SEARs relating to soils and contamination for the off-airport components of the project, and where these requirements are addressed in this technical paper, are outlined in Table 1-1. These requirements were issued by the NSW Department of Planning, Industry and Environment (DPIE) to support the Critical State Significant Infrastructure application.

Table 1-1 Secretary's Environmental Assessment Requirements

Ref.	SEARs	Where addressed
13. Soils and Contamination		
13.1	Verify the risk of ASS (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Risk Map) within, and in the area likely to be impacted by, the project.	Sections 4.2.7 and 5.2.2
13.2	Land contamination and identify if remediation of the land is required, having regard to the ecological and human health risks posed by the contamination in the context of past, existing and future land uses. Where assessment and/or remediation is required, the EIS must document how the assessment and/or remediation would be undertaken in accordance with current guidelines.	Sections 4.1.1 and 4.2.4
13.3	Determine the presence, extent and severity of soil salinity within the project area and the impacts of the project on soil salinity and how it may affect groundwater resources and hydrology.	Sections 3.1.2 and 5.2.3

The Minister for the Environment has advised that the on-airport components of the project would be assessed based on the provision of preliminary documentation. Further information was requested to guide the assessment of the on-airport components of the project. This information is included in Appendix J (EPBC Act Draft Environmental Impact Assessment of off-airport proposed action (EPBC 2020/8687)) of the Environmental Impact Statement.

1.5 Structure of report

The technical paper is structured as follows:

- Section 1 provides an overview and background context of the project
- Section 2 discusses the relevant legislative and policy context for the contamination assessment in the project context
- Section 3 describes the methodology undertaken for the off-airport and on-airport assessment
- Section 4 describes the existing environment for the off- and on-airport land
- Section 5 describes the assessment of off- and on-airport impacts from project construction
- Section 6 describes the assessment of off- and on-airport impacts from project operation
- Section 7 describes the cumulative impact of the project with other major projects planned within the Study Area
- Section 8 describes the identified management approach and mitigation measures for construction and operation
- Section 9 concludes the contamination assessment
- Section 10 provides relevant references for the assessment
- Appendix A contains the figures to accompany to assessment
- Appendix B contains a summary of relevant legislation and policy
- Appendix C contains the site history review and preliminary CSMs of potential existing contamination in the off-airport environment
- Appendix D contains the preliminary CSM for the on-airport environment based on the information reviewed in previous contamination reports completed for the Western Sydney International
- Appendix E contains copies of historical titles for selected lots within the off-airport environment for the site history review.

1.6 Study area

The study area for this technical paper comprises the project alignment plus a one km buffer either side of the alignment. Exceptions to the study area boundary have been described where applicable, such as the 500 metre buffer either side of the indicative permanent power supply routes and construction power supply route in Kemps Creek. In this report the study area has been referred to when describing the existing environment.

The assessment of existing contamination relating to surface construction has been described by construction sites and corridor that make up the construction footprint. The off-airport construction sites and corridor are defined and shown on Figures A1 to A18 in Appendix A. The on-airport construction sites and corridor are defined on Figures A19 to A22 in Appendix A.

2 Legislative and policy context

The relevant legislation, policies and guidelines for contaminated land matters that have been considered during the preparation of this report are listed in Table 2-1 and described in Appendix B.

Table 2-1 Legislation, policies and guidelines

Legislation, regulation or policy		Guidelines applicable to this technical paper
Off- airport		
Commonwealth	<ul style="list-style-type: none"> <i>National Environment Protection Council (NEPC) Act 1994</i> 	<ul style="list-style-type: none"> <i>National Environment Protection (Assessment of Contamination) Measure 1999</i> as amended in 2013 (ASC NEPM) Heads of EPAs Australia and New Zealand (HEPA), 2020. <i>PFAS National Environmental Management Plan 2.0</i>. Australian and New Zealand and Australian State and Territory Governments (ANZAST), 2018, Australian and New Zealand Guidelines for Fresh and Marine Water Quality
State	<ul style="list-style-type: none"> <i>Environmental Planning and Assessment Act 1979</i> State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) <i>Contaminated Land Management Act 1997</i> 	<ul style="list-style-type: none"> Department of Urban Affairs and Planning (DUAP), 1998. <i>Managing Land Contamination Planning Guidelines SEPP 55 – Remediation of Land</i> NSW Acid Sulfate Soils Management Advisory Committee (ASSMAC) 1998, <i>Acid Sulfate Soils Assessment Guidelines</i>. August 1998 NSW Department of Land and Water Conservation 2002, <i>Site Investigation for Urban Salinity</i> National Environment Protection Council (NEPC) 1999, <i>National Environment Protection (Assessment of site Contamination) Measure 2013</i> (the ASC NEPM) NSW EPA 2015, <i>Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997</i> NSW EPA 2017, <i>Guidelines for the NSW Site Auditor Scheme</i> (3rd edition) NSW EPA 2019, <i>Assessment and management of hazardous ground gases: Contaminated Land Guidelines</i>. NSW Department of Environment and Conservation (DEC) 2007, <i>Guidelines for the Assessment and Management of Groundwater Contamination</i> NSW DEC, 2005. <i>Guidelines for Assessing Former Orchards and Market Gardens</i> NSW Department of Environment and Climate Change (DECC) 2009, <i>Guidelines for Implementing the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008</i> NSW Department of Environment, Climate Change and Water (DECCW) 2010, <i>UPSS Technical Note: Decommissioning, Abandonment and Removal of UPSS</i>. NSW DECCW 2010, <i>UPSS Technical Note: Site Validation Reporting</i> NSW Department of Urban Affairs and Planning (DUAP) and NSW EPA 1998, <i>Managing Land Contamination, Planning Guidelines SEPP 55-Remediation of Land</i> NSW EPA, 2020, <i>Guidelines for Consultants Reporting on Contaminated Sites</i>

Legislation, regulation or policy		Guidelines applicable to this technical paper
	<ul style="list-style-type: none"> Protection of the Environment Operations Act 1997 (POEO Act) The POEO (Waste) Regulation 2014 	<ul style="list-style-type: none"> NSW EPA, 2014. <i>Waste Classification Guidelines Part 1 to 4</i> NSW EPA (2016) <i>Addendum to the Waste Classification Guidelines (20410 Pat 1: classifying Waste</i> NSW EPA, 2018. <i>Guidelines on resource recovery orders and exemptions for the land application of waste materials as fill</i> NSW EPA 2016, <i>Environmental Guidelines: Solid Waste Landfills</i>, Second Edition.
Local*	<ul style="list-style-type: none"> Penrith Local Environment Plan (LEP) 2010 Liverpool LEP 2008 Penrith Development Control Plan (DCP) 2014 Liverpool DCP 2008 	<ul style="list-style-type: none"> DUAP and NSW EPA, 1998. <i>Managing Land Contamination Planning Guidelines SEPP 55 – Remediation of Land</i>.
On-airport		
Commonwealth	<ul style="list-style-type: none"> Airports Act 1996 The Western Sydney Airport Plan (2016) 	<ul style="list-style-type: none"> Guidelines specified in the Airport Plan under <i>Clause 34 PFOS/PFOA</i>: <ul style="list-style-type: none"> <i>National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended);</i> <i>Australian and New Zealand Guidelines for Fresh and Marine Water Quality (under the National Water Quality Management Strategy) including the draft default guideline values for perfluorooctanoic acid (PFOS) and Perfluorooctane sulfonic acid (PFOA) in freshwater as applied by the state government; and</i> <i>relevant Commonwealth environmental management guidance on PFOS and PFOA (HEPA, 2020)</i>

Note: * Are not applicable to the planning approvals for the project. Relevant planning controls are however considered for consistency, and local government is involved through stakeholder consultation.

3 Methodology

3.1 Desktop review

3.1.1 Off-airport

A desktop review was undertaken to understand the local environment, identify sensitive receptors and identify areas of environmental concern (AECs) relating to existing contamination within the construction footprint. This included review of the following in the study area:

- published geology, soils and acid sulfate soil risk maps
- current land use by review of current aerial photography, current maps, businesses and local Environmental Plan (LEP) zones
- registered groundwater wells, groundwater dependant ecosystems and existing hydrogeology reports
- NSW EPA databases:
 - contaminated land record of notices issued under the *Contaminated Land Management* (CLM) Act 1997 by the NSW EPA
 - sites notified as contaminated to the NSW EPA under the CLM Act 1997
 - NSW EPA per-and poly-fluoroalkyl substances (PFAS) investigation program sites
 - former gasworks sites
 - licensed premises, delicensed premises still regulated by the NSW EPA, licences surrendered, clean up and penalty notices issued by the NSW EPA
- National Pollution Inventory (NPI) industrial facilities
- public register of properties affected by loose-fill asbestos insulation within the study area
- current and former Defence sites and Department of Defence unexploded ordnance (UXO) mapping application
- historical aerial photographs from 1947, 1955, 1970, 1980, 1994, 2005 and 2019
- historical commercial and directory trade data from 1932, 1940, 1950, 1965, 1970, 1974, 1980, 1990 and 1991 for selected parts of the study area
- available contamination investigation, assessment and remediation reports for the study area.

The search for PFAS investigation sites was extended an additional 1 km further from the study area footprint defined for the project, due to the persistent and migratory nature of PFAS.

The following site inspections were undertaken:

- publicly accessible parts of the construction footprint, project alignment and the indicative construction power route corridor for the Orchard Hills tunnel site and immediate surrounds on 14 August 2019
- the former Overseas Telecommunications Radio Station (OTC) site within the Aerotropolis Core construction footprint on 10 October 2019
- publicly accessible parts of the indicative permanent and temporary cable routes in Erskine Park, Kemps Creek and Badgerys Creek were undertaken on 12 May 2020.

Where there was evidence of past commercial/industrial land use, but no specific information on the type of business and activities, or significant data gaps in site history, historical titles and council Section 10.7 planning certificates (issued under Section 10.7 of the EP&A Act) were obtained.

3.1.2 On-airport

The methodology for the on-airport environment comprised the review of the following plans and reports prepared for the Western Sydney International Construction Impact Zone:

- Western Sydney Airport Soil and Water Construction Environmental Management Plan, December 2019
- Commonwealth Department of Infrastructure and Regional Development (DIRD) (2016), Western Sydney Airport Environmental Impact Statement, 2016
- GHD (2019), Western Sydney Airport Remediation Action Plan, ref. 2126850, June 2019.

The *Western Sydney Airport - Environmental Impact Statement* (DIRD, 2016) and the *Western Sydney Airport Remediation Action Plan* (DIRD, 2019) included a summary of information from the following reports:

- GHD (2016a), Preliminary (Phase 1) Contaminated Assessment Report, Proposed Western Sydney Airport, ref. 2124265.208989, February 2016
- GHD (2016b), Detailed Site Contaminated Investigation, Proposed Western Sydney Airport, February 2016.

The on-airport construction footprint and tunnel alignment is located both within and outside the Western Sydney International Construction Impact Zone. Additional contamination, geotechnical and hydrogeological investigations undertaken for the project within the Western Sydney International were also reviewed.

3.2 Preliminary conceptual site model

3.2.1 Off-airport

AECs identified from the desktop review off-airport were assessed for potential human or ecological health risks in the context of the project. Where an AEC was identified, a CSM was then developed. A CSM is representation of how human and ecological receptors may be exposed to contamination and is an essential part of all contamination site assessments. The CSM considers the different exposure pathways between a contamination source and receptor in either the present or future.

The CSM was developed assuming no mitigation and based on the proposed construction works for a particular location. This approach provides a conservative assessment of exposures and enables a consistent decision on appropriate mitigation measures to be adopted.

3.2.2 On-airport

Areas of contamination risk identified in the review of previous reports were assessed for potential human or ecological health risks in the context of the project. The preliminary CSM was then developed.

3.3 Risk ranking

Due to the size and extent of the study area, a risk ranking process was used to assign relative risk, based on likely contamination type, extent and project construction activities. Following completion of the CSM, a risk was assigned by using the risk ranking matrix outlined in Table 3-1. The risk ranking matrix has considered the likelihood and consequence of contamination based on the type of potential source and extent and the type of construction works. It is noted that residual land that is part of the construction footprint but outside of the operational footprint may be used for a number of land uses in the future which are unknown at this stage and has not been assessed in regard to land use suitability. The residual land would be subject to further assessment post construction, to assess land use suitability at the appropriate time. The risk rankings were then used to inform the type of mitigation measure to manage contamination risk.

The mitigation measures were then assigned by the risk ranking where:

- low risk areas of the construction footprint would be managed during construction with mitigation measures under a construction environmental management plan (CEMP) including an unexpected finds protocol
- medium risk AECs would have detailed site inspections and then reassessment of the risk prior to construction (low, medium or high)
- high risk AECs would have DSIs carried out prior to construction to decide on whether remediation or specific management measures are required for construction of the project.

These mitigation measures are described further in Section 8.3.

Table 3-1 Risk ranking matrix

Matrix	Consequence – scale and severity of contamination		
Likelihood of human health and/or ecological exposure (complete pathways)	C1: No AEC ² identified from site history review with exception of the potential for low concentrations of pesticide, heavy metals and PFAS associated with widespread/diffuse general urban and agricultural land uses	C2: An AEC ² identified from site history review. Potential contamination related to isolated surface impacts and expected to be of limited extent (minor dumped surface waste, sources of hazardous building materials, small or short-term stockpiles)	C3: an AEC identified from site history review. Potential significant point source of contamination e.g. filling, landfills, significant quantities of commercial chemical use/storage, underground or aboveground storage tanks, widespread/ long-term dumping, cattle dips or defence activities
L1 Human health: no potential pathways identified during construction or operation Ecological: no potentially complete pathways or no receptors nearby	Low	Low	Low
L2 Human health: potentially complete pathway and works limited to localised disturbance during construction; and no pathway during operation ¹ . Ecological: nearby ecological receptors and potentially complete pathway to receptor	Low	Medium	Medium
L3 Human health: significant disturbance of contamination during construction (large vertical or horizontal extent); or groundwater or soil vapour risk to intrusive construction works or operations and maintenance. Ecological: ecological receptor within or immediately adjacent to AEC and potentially complete pathway	Low	Medium	High

Notes: 1. Exception is where there is a potential vapour or landfill gas risk through intrusive maintenance works associated with construction (would be L3). 2. Or medium/high/asbestos risk area for the on-airport environment identified in previous investigations

4 Existing environment

4.1 Off-airport existing environment

The following sections describe the existing environment for the off-airport study area and surrounds.

4.1.1 Geology

The Penrith 1:100 000 Geological Map shows that the geology of the off-airport environment is characterised by Triassic sedimentary rocks of the Wianamatta Group and Hawkesbury Sandstone. The Wianamatta Group in this area comprises Bringelly Shale underlain by Ashfield Shale units. The Wianamatta Group is underlain by Hawkesbury Sandstone. The geology is mapped on Figure 4-1. The Narellan Lineament is the dominant geological feature within the off-airport environment. The Narellan Lineament is a north to south running surface expression of a deep seated, nearly vertical normal fault in the basement structure. It is comprised of fine-grained sand, silt and clay.

Other geological features in the off-airport environment include the Rossmore Syncline and the Luddenham Dyke.

4.1.2 Soil landscapes

Soils within the off-airport environment consist primarily of the Blacktown and South Creek soil landscapes. The Blacktown soil landscape consists of shallow to moderately deep (greater than one metre) sandy soils typical of eucalypt forests. The soils are characterised by seasonal waterlogging, moderately reactive subsoils and localised surface movement potential.

The South Creek soil landscape comprises the present active floodplain of many drainage networks of the Cumberland Plain and consists of deep layered sediments over bedrock including clays and loams. The soils are characterised by seasonal waterlogging, localised permanently high-water tables, localised water erosion hazard and localised surface movement potential.

There were no mapped areas of disturbed terrain within the off-airport environment. Soil landscapes are mapped on Figure 4-2.

4.1.3 Soil and groundwater salinity

Salinity is caused by the accumulation of salts within soil, surface water and groundwater from natural conditions that have been accelerated in areas of human activity. There are four main types of salinity classes:

- dryland salinity: in non-irrigated areas where rising groundwater levels occur due to land clearing
- irrigation salinity: where groundwater level rises are due to increased recharge due to irrigation
- urban salinity: where urban development and irrigation cause rising groundwater levels
- industrial salinity: where industrial wastewater with concentrated salt is discharged from effluent, mines or agriculture into waterways or migrates into groundwater.

Salinity can lead to degradation of soil and water quality, increased erosion, natural vegetation deterioration, decline of agricultural production and degradation of man-made structures. In Western Sydney salinity issues are mostly associated with dryland salinity. The Department of Infrastructure Planning and Natural Resources (2002) *Salinity Potential in Western Sydney Map* shows that there are areas of mapped known and high salinity potential in parts of the off-airport study area. The known areas within the off-airport environment are:

- the riparian zone and unnamed creek just south of Patons Lane
- an area immediately south of Erskine Park Road and Lenore Road in Erskine Park
- Badgerys Creek at Bringelly.

There is a high salinity potential for the areas around all watercourses in the off-airport environment (DIPNR, 2002). The remainder of the study area is mapped as moderate salinity potential. The salinity risk is mapped on Figure 4-2.

Previous groundwater monitoring undertaken within the study area and reported in Technical Paper 7 (Groundwater), indicates widespread groundwater salinity within the Bringelly Shale and colluvial deposit aquifers. Most of the groundwater monitoring undertaken had total dissolved solids (TDS) above 5,000 milligrams per litre (mg/L), with a maximum of 33,600 mg/L and exceeded the salinity criteria for lowland rivers (125 to 2000 microsiemens per centimetre [$\mu\text{S}/\text{cm}$]).

4.1.4 Acid sulfate soils

Acid sulfate soils (ASS) is the common name given to a range of soil types containing iron sulfides, the most common being pyrite. ASS may be present as actual ASS (AASS) or potential ASS (PASS).

PASS are sulfidic soils formed in coastal lowlands subject to tidal inundation or saline groundwater that have not been oxidised. PASS form where conditions are conducive for accumulation of iron sulfides in soils (e.g. source of sulfate, source of iron, reducing conditions, and stable low energy environment). When exposed to air due to drainage (water table lowering/dewatering) or disturbance during earthworks, these soils produce sulfuric acid, often releasing toxic quantities of iron, aluminium and heavy metals. These heavy metals and acids can leach into soil and groundwater or impacted runoff can enter waterways and have negative impacts on water quality and aquatic ecosystems.

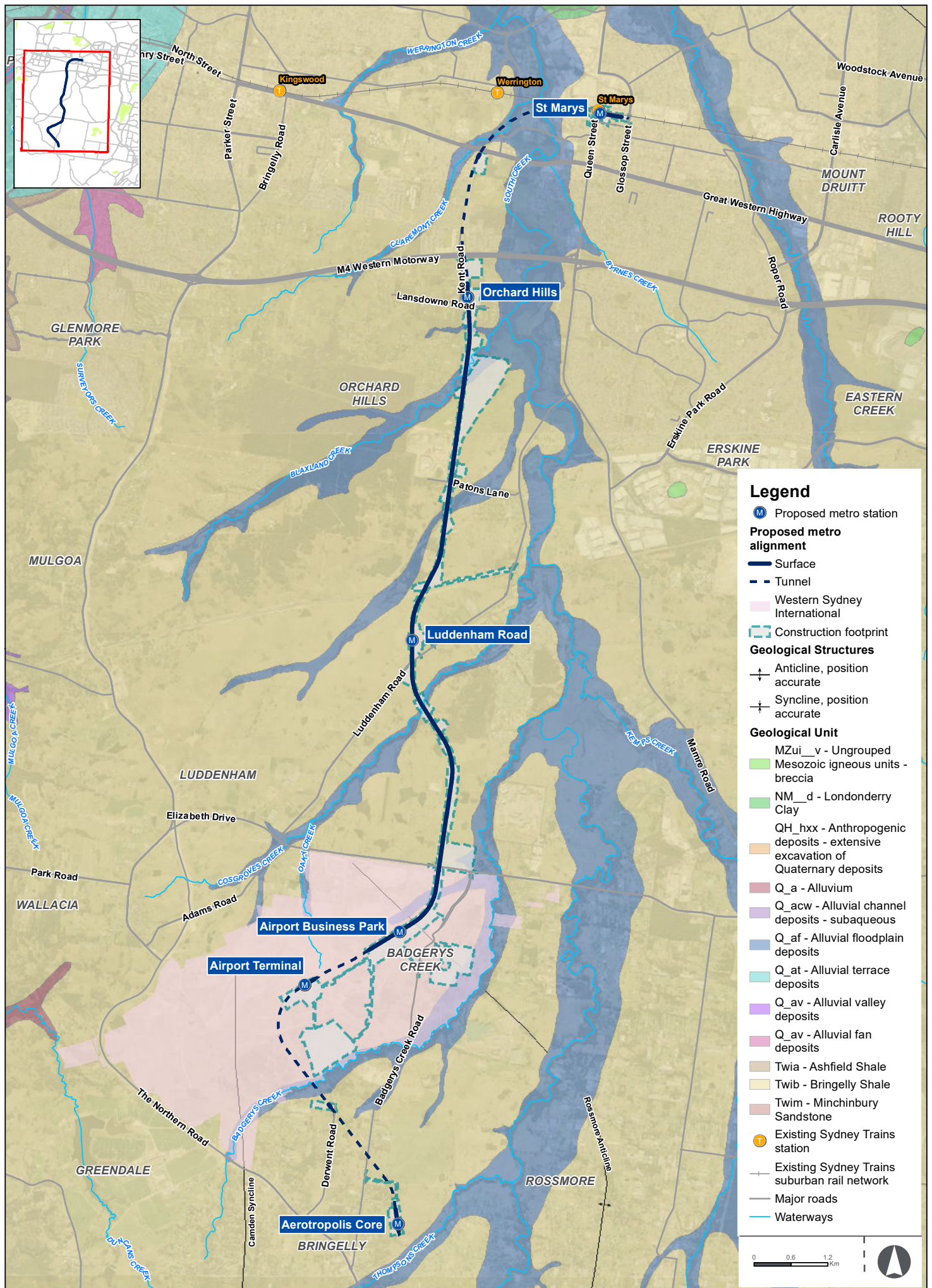
AASS occur where natural (e.g. groundwater level changes) or anthropogenic (e.g. land development, drainage works, etc.) activity has resulted in PASS to being exposed to air, resulting in releasing acidity and reaction products (iron, sulfate, calcium, magnesium, aluminium etc.).

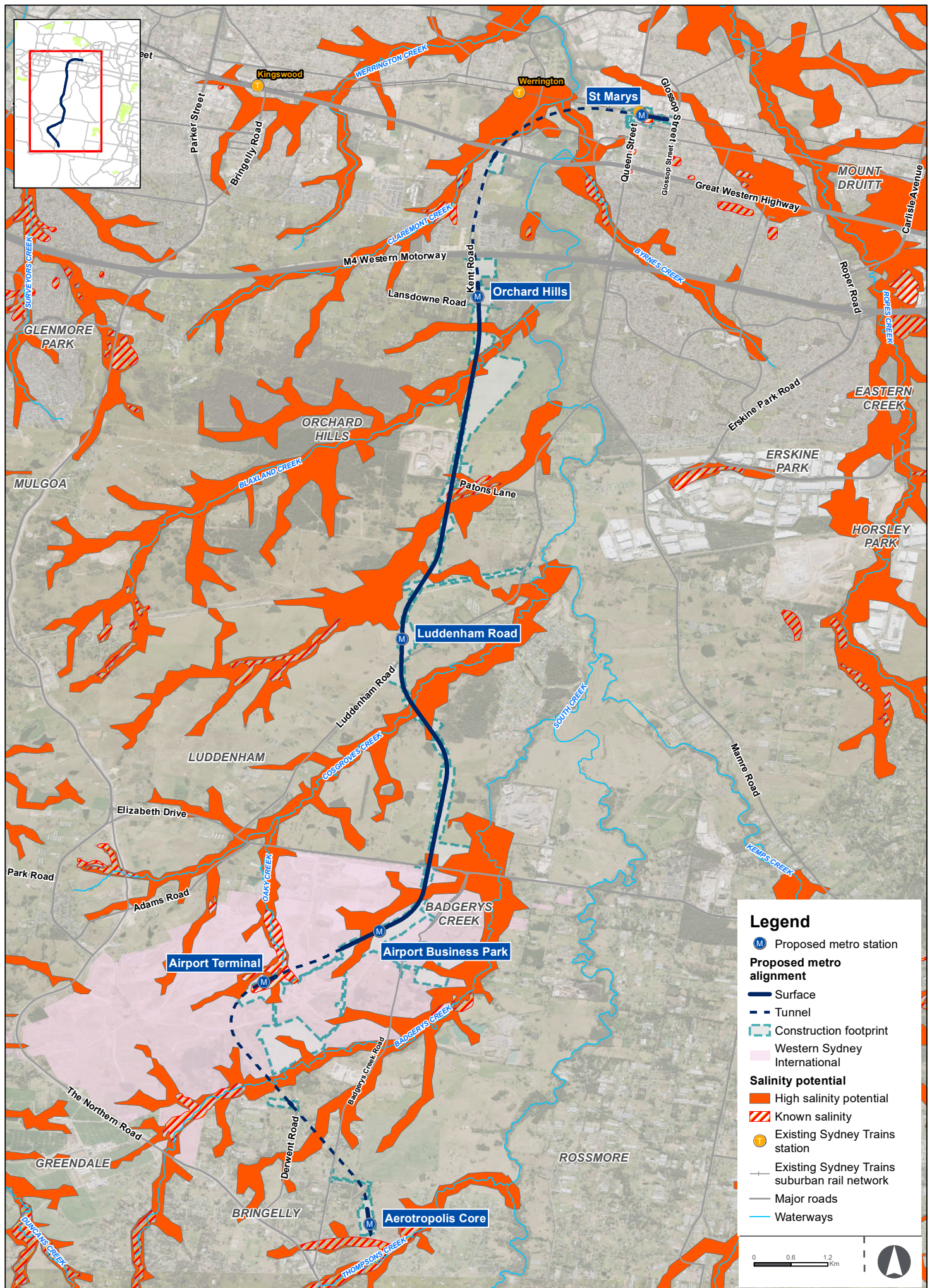
NSW Office of Environment and Heritage (OEH, 2012) ASS risk maps show areas of ASS risk. The ASS classification is assigned based on the probability and depth of occurrence of ASS. The classes trigger when an acid sulfate soil management plan (ASSMP) should be prepared.

The off-airport environment is mapped as extremely low probability of ASS and very low confidence in the Atlas of Australian Acid Sulfate Soils map (CSIRO, 2013). The off-airport environment is not within a coastal area and considered to have 'no known occurrence' of ASS associated with coastal processes that have led to the formation of PASS and ASS.

Inland ASS are however often associated with salinity and many have not been properly identified according to the *National guidance for the management of ASS in inland aquatic ecosystems* (Environment Protection and Heritage Council and Natural Resource Management Ministerial Council, 2011). Inland ASS can form within saline waterlogged soils with high quantities of organic matter. These may occur in large dams, drainage channels, riparian zones and wetlands within the study area.

The areas mapped as high or known salinity risk on Figure 4-2 show the areas where inland ASS could potentially occur. There is very limited data available to confirm the absence of ASS. Field ASS tests were conducted on two samples of shallow fill collected from one borehole (BH_A018) adjacent to South Creek in Claremont Meadows during preliminary geotechnical and contamination investigations for the project (Golder and Douglas Partners, 2019). The tests did not indicate PASS in the samples analysed.





High salinity potential and known salinity risk areas

Figure 4-2

Indicative only, subject to design development

4.1.5 Drainage and topography

The off-airport environment is located within the Hawkesbury-Nepean catchment. Watercourses and associated low-lying floodplain areas across the off-airport environment are primarily associated with South Creek and its tributaries. South Creek is a 400 square km creek system that has its headwaters in the Camden area and flows 70 kms north to the Hawkesbury River.

Major tributaries of South Creek include Ropes Creek and Kemps Creek, located east of the study area. Minor tributaries of South Creek which the project alignment intersects are:

- Blaxland Creek
- Cosgroves Creek
- Badgerys Creek.

To the north of the M4 Motorway, the project alignment passes under Claremont Creek and South Creek. Claremont Creek is also hydraulically down-gradient of the project alignment within the study area.

Byrnes Creek and Thompsons Creek are minor tributaries of South Creek within the study area, which are not intersected by the project alignment. Thompsons Creek is hydraulically down-gradient of the project alignment and Byrnes Creek is hydraulically up-gradient. The creeks are shown on Figure 4-3 and figures in Appendix A.

The topography of the investigation area is relatively flat between St Marys and Werrington, with higher ground towards Claremont Meadows. Elevations are generally flat towards Orchard Hills, with slightly lower lying areas occurring along Blaxland Creek. Through Orchard Hills, Badgerys Creek and Bringelly, the valley and floodplain of South Creek and its tributaries dominate the gently undulating topography. The topography to the east and west of the study area is more elevated. Topography is mapped on the figures in Appendix A.

4.1.6 Hydrogeology

The hydrogeological impact assessment in Technical Paper 7 (Groundwater) included a review of groundwater data collected during geotechnical investigations within the study area. The report described the following hydrogeological conditions for the off-airport environment consisting of:

- hydrogeological landscapes of the Shale Plains (St Marys area) and Upper South Creek (remainder of study area southwest of St Marys)
- aquifers within the unconfined alluvial sediments, unconfined to semi-confined fractured rock, vertical and lateral flow components and local perched groundwater.

Table 4-1 summarises the groundwater conditions in the off-airport environment as described in Technical Paper 7 (Groundwater). Registered groundwater bores within 1 km of the study area are listed in Table 4-2 and shown on Figure 4-3.

The registered groundwater bore data indicates that groundwater is not likely to be used for domestic or drinking water purposes in the study area, given the groundwater salinity within the study area and the low hydraulic conductivity of the Bringelly Shale.

Table 4-1 Hydrogeological summary (from Technical Paper 7 (Groundwater))

Groundwater properties	Aquifer type		
	Residual soil/colluvial deposits	Alluvium	Bringelly Shale/Fractured Bedrock
Hydraulic conductivity	Low	Low to moderate	Low, may be enhanced below creeks
Recharge	Recharge from rainfall at surface	Recharge from rainfall at surface, creek flow, residual soil, limited discharge from shale bedrock	Recharge from overlying residual soils and possibly alluvial deposits
Groundwater levels	Perched groundwater, likely to be variable in response to rainfall events	Close to surface (< 1 m to 5 m bgl) along main drainage channel lines. Water levels likely to respond rapidly to rainfall events	Close to surface near creek lines (< 1 m to 5 m bgl) up to 15 to 20 m bgl at hill crests, with limited fluctuation in groundwater levels in response to rainfall
Flow direction	Expected to be locally variable. Vertical flow contributing to recharge, lateral flow towards creek lines	Generally northeast to north following creek flow direction	Generally, follows topography towards creek lines
Groundwater quality	Fresh to saline	Fresh to brackish	Generally saline
Groundwater users	None	Potential local supplies for stock watering but unlikely based on registered bore search and salinity	None
Groundwater dependant ecosystems (GDEs)	May provide water locally to native vegetation where close to the surface	Contribution to creek baseflow and GDEs along creek lines	Unlikely to provide significant contribution to GDEs due to saline groundwater quality

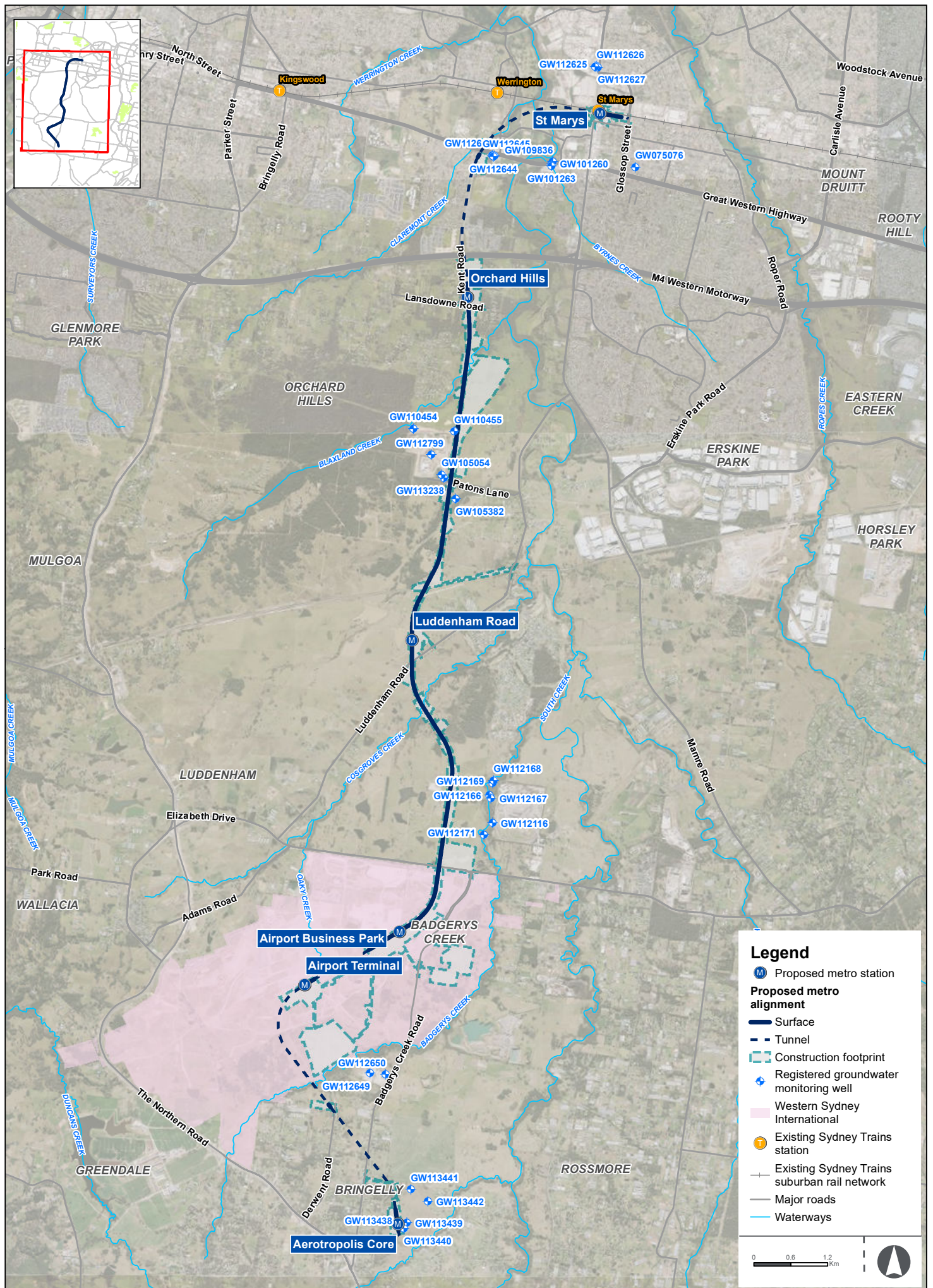
Table 4-2 Registered groundwater bores

Area	Bore ID	Purpose	Install date (year)	Depth (m)	Standing water level (m)	Lithology	Other
St Marys	GW112625 - GW112657	Monitoring (service station)	2009	6	-	Fill and clay	
St Marys	GW101258 - GW101266	Monitoring (service station)	1997	6 to 8	2.8 to 4.5		
St Marys	GW109829 - GW109836	Monitoring (service station)	2002	5.3 to 6	-	Silty clay and sandy clay	
St Marys	10095	Unknown	-	-	-	-	
Claremont Meadows	212048	Unknown	-	-	-	-	

Area	Bore ID	Purpose	Install date (year)	Depth (m)	Standing water level (m)	Lithology	Other
Claremont Meadows	GW112643 – GW112645	Monitoring (service station)	2009	6	-	-	
Werrington	GW020547	Water supply, Manufacture and industry	1963	91.4	9.10	Clay and shale	Yield: 0.06 L/s
Werrington	GW019680	Water supply, Manufacture and industry	1962	53.3	10.9	Clay and shale	Yield: 3.54 L/s Salinity: Saline
Werrington	GW020069	Water supply, Manufacture and industry	1962	75.6	6	Clay and shale	Yield: 0.25 L/s
Orchard Hills	212033	Unknown	-	-	-	-	-
Orchard Hills	GW110454	Monitoring (Erskine Park Quarry)	2009	30.3	6.3	Clay and shale	Yield: 1.4 L/s Salinity: 10,000mg/L
Orchard Hills	GW110455	Monitoring (Erskine Park Quarry)	2009	44.4	-	Clay and shale	-
Orchard Hills	GW112799	Monitoring (Erskine Park Quarry)	2012	21	-	-	-
Orchard Hills	GW105054	Manufacture and industry (Erskine Park Quarry)	2002	210	46	-	Yield: 0.5 L/s Salinity: 3050 mg/L
Orchard Hills	GW113238	Monitoring (Erskine Park Quarry)	2012	18.5	-	-	-
Orchard Hills	GW105382	Manufacture and industry	2004	252	24	Clay, shale and sandstone	Yield: 1.1 L/s Salinity: 2500 mg/L
Badgerys Creek	GW112168	Monitoring (Kemps Creek Landfill)	1992	26.5	-	-	Salinity: 2020 uS/cm
Badgerys Creek	GW112169	Monitoring (Kemps Creek Landfill)	1993	16.55	-	-	-
Badgerys Creek	GW112166	Monitoring (Kemps Creek Landfill)	1992	32.34	-	-	-

Area	Bore ID	Purpose	Install date (year)	Depth (m)	Standing water level (m)	Lithology	Other
Badgerys Creek	GW112167	Monitoring (Kemps Creek Landfill)	1992	20.6	-	-	-
Badgerys Creek	GW112116	Monitoring (Kemps Creek Landfill)	2003	23.4	-	-	-
Badgerys Creek	GW112171	Monitoring (Kemps Creek Landfill)	1991	32	-	-	-
Bringelly	GW112649	Monitoring (Badgerys Creek Shale Quarry and Resource Recovery Facility)	2012	30.12	6.8	Clay, siltstone, sandstone and laminite	-
Bringelly	GW112650	Monitoring (Badgerys Creek Shale Quarry and Resource Recovery Facility)	2012	30.7	8.5	Clay, siltstone, sandstone and laminite	-
Bringelly	GW113438	Monitoring (Australian Defence Force former Radio Receiving Station)	2010	18.5	-	-	-
Bringelly	GW113439	Monitoring (ADF former Radio Receiving Station)	2010	12.2	-	-	-
Bringelly	GW223440	Monitoring (ADF former Radio Receiving Station)	2010	12.2	-	-	-
Bringelly	GW113441	Monitoring (ADF former Radio Receiving Station)	2010	12.2	-	-	-

Area	Bore ID	Purpose	Install date (year)	Depth (m)	Standing water level (m)	Lithology	Other
Bringelly	GW113442	Monitoring (ADF former Radio Receiving Station)	2010	6	-	-	-
Bringelly	GW101062	Household	1997	220	45	Clay, shale, sandstone	Yield: 1.8 L/s Salinity:8768 (no units)
Bringelly	GW111604	Monitoring	2011	20	-	Silty clay, shale and sandstone	-



Groundwater supply wells - Off Airport

Figure 4-3

Indicative only, subject to design development

4.1.7 Existing potential contamination

The review of the history of the study area in accordance with the methodology in Section 3 is included in Appendix C. The potential existing sources of contamination within the off-airport study area include:

- past industrial land uses including a former wrecker's yard and adjacent former businesses including a bus depot with potential former underground storage tanks (USTs) and plastic manufacturing businesses along Harris Street in St Marys within the construction footprint
- potential former fuel storage in the Sydney Trains Incident Emergency Response Depot at 1 Station Street in St Marys construction footprint
- former rail siding within the bus interchange area in Station Street and rail activities, stockpiling and filling within the existing rail corridor in the St Marys construction footprint
- up-gradient off-site sources of the St Marys construction footprint and tunnel alignment in St Marys including former dry cleaners and service stations
- up-gradient off-site sources comprising service stations and historical industrial businesses on the Great Western Highway Werrington up-gradient of the tunnel alignment
- the closed Gipps Street Landfill (former putrescible and industrial landfill), located up-gradient of the Claremont Meadows services facility construction footprint and tunnel alignment in Claremont Meadows
- unlicensed waste operations within areas of waste dumping and burial on rural properties in Luddenham, Badgerys Creek and Kemps Creek
- areas of oil, fuel and chemical storage within numerous rural properties within the construction footprint and the Overseas Telecommunications Commission (OTC) property in Bringelly, including bulk storage in USTs
- potential storage and use of fuel, oil, solvents and potential use or storage of PFAS containing aqueous film forming foam (AFFF) at Kennett's Airfield within the construction corridor
- past military activities including potential unexploded ordnance (UXO), waste burial and use and storage and AFFF within the Defence Establishment Orchard Hills within the construction corridor footprint in Orchard Hills
- potential storage or use of AFFF within the OTC within the Aerotropolis Core construction footprint or use within the wider catchment by Rural Fire Services (RFS) in Bringelly
- widespread historical use of herbicides and pesticides on rural properties within all construction sites and the surrounding study area
- evidence of hazardous building materials such as asbestos containing materials (ACM) lead paint, polychlorinated biphenyl's (PCBs) in former and existing buildings, structures and underground conduits within the construction footprint.

The findings from the site history review for the construction footprint by construction site is summarised in Section 5.1.1. The areas of environmental concern (AECs) are shown on Figures A1 to A18 in Appendix A.

4.2 On-airport existing environment

The following sections describe the existing on-airport environment.

4.2.1 Geology

The geology of the on-airport environment is characterised by Triassic sedimentary rocks of the Wianamatta Group (comprising Bringelly Shale) and Hawkesbury Sandstone, consistent with the off-airport environment. The geology is mapped on Figure 4-1.

4.2.2 Soil landscapes

Soils within the on-airport environment consist primarily of the Blacktown and South Creek soil landscapes. Soils in the on-airport environment are primarily from residual clays with areas of alluvial

gravels, sands, silts and clays associated with Badgerys Creek. There are no areas of disturbed terrain mapped within the on-airport environment. The mapped soil landscapes are shown on Figure 4-2.

4.2.3 Salinity risk

The known areas of salinity impact to soils within the on-airport environment are:

- Oaky Creek in the central portion
- Badgerys Creek in the southern portion.

The remainder of the on-airport environment is mapped as moderate salinity potential. The salinity risk is mapped on Figure 4-2.

The Western Sydney Airport Environmental Impact Statement (DIRD, 2016) reported that soil samples were tested for salinity during geotechnical investigations. The selected samples had relatively low salinity concentrations between 120 and 384 mg/L. Further sampling for soil salinity was planned to be undertaken before commencement of construction.

Groundwater salinity measured during previous investigations within the on-airport environment, as measured by the electrical conductivity varied from between 600 and 41,000 mS/cm. The results were mostly well above the criteria for lowland rivers, with only one groundwater well within the freshwater range.

4.2.4 Acid sulfate soils risk

The on-airport environment is not within a coastal area and considered to have 'no known occurrence' of ASS materials associated with coastal processes that have led to the formation of PASS and ASS. The on-airport environment may contain potential isolated areas of inland ASS which have not been previously identified. Inland ASS form within saline waterlogged soils with high quantities of organic matter. These may occur in dams, drainage channels, riparian zones and wetlands. The areas mapped as high or known salinity risk on Figure 4-2 have the potential for areas of inland ASS.

The Western Sydney Airport Environmental Impact Statement (DIRD, 2016) reported that field testing undertaken during geotechnical investigations indicated isolated ASS may be present, but not to an extent requiring mitigation measures.

PASS testing has been undertaken at the Western Sydney International as part of ongoing investigations. A total of 97 soil samples were tested for PASS with two samples having a slight marginal presence of PASS.

4.2.5 Drainage and topography

The on-airport environment is located within the Hawkesbury-Nepean catchment. Mapped watercourses and drainage lines within the Western Sydney International include Badgerys Creek and tributaries of Cosgroves Creek and Oaky Creek. The creeks are shown in Figure 4-3.

Water quality in the study area is relatively degraded with high levels of phosphorus and nitrogen in surface water that is attributed to nearby agricultural land uses (DIRD, 2016). Turbidity and total suspended solids are generally within acceptable levels and dissolved oxygen levels are relatively low. Conductivity levels within the watercourses are high and above conductivity levels for typical lowland rivers. Further detail on the water quality of Badgerys Creek is in Technical paper 6 (Hydrology, flooding and water quality).

The construction of Western Sydney International Stage 1 would generally change this area from a rolling, vegetated landscape to a graded, primarily hardstand environment which would change the catchment areas within the Western Sydney International and increase runoff levels and the velocity of surface water flows. The pre-construction topography is shown on Figure A17 to A20 in Appendix A.

The Stage 1 development would change the entire catchment of Cosgroves Creek and Oaky Creek (within the on-airport environment) and the northern section of the Badgerys Creek into a graded, hardstand environment. The remainder of the Badgerys Creek catchment would not be directly impacted.

4.2.6 Hydrogeology

The hydrogeological conditions on-airport are described in detail in Technical Paper 7 (Groundwater) and summarised in this section. The hydrogeology assessment was informed by existing data and additional testing undertaken for the assessment. Groundwater within the on-airport environment was identified to be present within the Bringelly Shale across the Western Sydney International and in the alluvium along and around Badgerys Creek. There were also areas where groundwater was present within residual soil above the Bringelly Shale aquifer.

A summary of groundwater levels within the project construction footprint in the Western Sydney International is summarised in Table 4-3. Packer test data indicated low hydraulic conductivity values ranged from less than 1×10^{-8} m/s to 9×10^{-6} m/s for the Bringelly Shale

Groundwater flow directions are generally constant with the surface topography contours, with a northerly and easterly flow direction towards Cosgroves Creek and a southerly and easterly direction towards Badgerys Creek and South Creek.

Table 4-3 Summary of groundwater levels on-airport within the Bringelly Shale

Location	Groundwater level (m bgl)	Groundwater elevation (m AHD)
Western Sydney International (site wide)	0 to 18	42 to 106
Western Sydney International tunnel portal	0 to 3	63 - 67
Airport Terminal Station	2.5 to 3.5	75 to 76

4.2.7 Existing potential contamination

Early earth works and remediation within the Western Sydney International Construction Impact Zone commenced in 2018, with major earthworks commencing in March 2020. The project construction footprint is located both within and outside the Stage 1 CIZ. The Western Sydney International earth works within the Stage 1 Construction Impact Zone are being completed under management protocols in the Soil and Water CEMP (Western Sydney Airport, 2019) and the Western Sydney Airport RAP (DIRD, 2019).

It is anticipated that remediation of the Western Sydney International Stage 1 Construction Impact Zone would be complete prior to construction of the project. However, given that the project would involve construction activities and construction depths that may vary from those associated with Western Sydney International, Sydney Metro would also develop a project-specific Remediation Action Plan (Sydney Metro RAP). The Sydney Metro RAP would be prepared in a manner consistent with the Western Sydney Airport RAP (DIRD, 2019) to the extent practicable, and would be applied to any contamination encountered by Sydney Metro that has not been remediated by Western Sydney Airport.

The Western Sydney Airport RAP (DIRD, 2019) was informed by previous investigations including a preliminary site investigation (PSI) (GHD, 2016a) and DSI (GHD, 2016b) undertaken to inform the Environmental Impact Statement (DIRD, 2016) and development of the Western Sydney International. Prior to acquisition for the Western Sydney International, the land previously comprised 261 individual lot and deposited plans (DP). The land use was mostly used for agricultural purposes with some light commercial and industrial businesses. The PSI (GHD, 2016a) comprised a desktop assessment, visual inspection and sampling and analysis of soil samples for contamination during geotechnical investigations. The desktop assessment included review of historical aerial photographs and NSW EPA contaminated land and regulatory notice registers.

The properties that were assessed as having a high potential of contamination based on the desktop assessment were inspected. The PSI identified extensive waste dumping and stockpiling as the main source of contamination. The specific types and sources of contaminants were identified as:

- asbestos from demolished buildings, dumped, buried and stockpiled ACM
- fuels and lubricants from farming, landfill, dumped waste and industry
- solvents, acids and fuels from chemical storage

- heavy metals from farming, dumped waste, cemeteries and industry
- ash from landfill, dumped waste and industry
- farm chemicals (pesticides and herbicides) from market gardening, poultry farming and grazing
- pathogens (bacteria and faecal coliforms) from sewage, farming, landfill and cemetery
- inert waste from rural/residential, farming, dumping, industry and landfill.

In the PSI, the properties were assigned a risk ranking of low, medium or high based on the potential for contamination. The PSI recommended a DSI be undertaken at the medium and high-risk properties. The DSI (GHD, 2016b) included inspection of the 261 properties, and targeted intrusive investigation at medium and high-risk properties which comprised almost half of all properties. The intrusive investigation comprised targeted soil sampling and installation, sampling and analysis of 16 groundwater monitoring wells. The soil sampling comprised drilling of 18 boreholes to a depth of 12 m below ground level (bgl), sampling of fragments of potential ACM found on the ground surface and targeted sampling (test pitting, hand auguring or grab sampling) of surface soils and stockpiles. Surface water and sediment sampling was also undertaken at 30 dams. A total of 834 soil samples were collected, analysed and compared to the ASC NEPM (2013) health investigation and screening levels (HILs/HSLs), ecological investigation and screening levels (EIL/ESLs) and management limits for commercial/industrial land use. The DSI (GHD, 2016b) findings for the entire Western Sydney International which includes part of the project on-airport construction footprint are summarised in Table 4-4.

Table 4-4 Summary of DSI (GHD, 2016) findings

Contaminant type	Summary
Asbestos in soils	Fragments of potential ACM was identified at 113 properties, primarily around demolished buildings. Of the 73 fragments analysed 64 were positive for asbestos. Asbestos was encountered in shallow soil to a maximum depth of 0.4 m bgl within 13 properties. Of these, five properties contained friable asbestos or asbestos fines and the remainder bonded ACM. Redundant conduits constructed of ACM were identified at one property associated with a dam pump. It was expected that other buried pipes and former utility pits were present across the properties.
Heavy metals in soils	Concentrations of copper, nickel and zinc exceeded adopted EILs in many soil samples. The majority of concentrations were generally low and considered indicative of background conditions. Higher concentrations of copper and zinc, over 10 times the EIL, were found at 11 properties which were indicative of a point contamination source. Lead exceeded the HIL in one surface soil sample collected adjacent to a storage shed.
Petroleum hydrocarbons in soils	Staining and surface spills were observed at eight properties. There were exceedances of ESLs for concentrations of total recoverable hydrocarbon (TRH) C ₁₀ -C ₁₆ and/or TRH C ₁₆ -C ₄₀ in surface soils and stockpiles at several properties. Concentrations of polycyclic aromatic hydrocarbons (PAHs) were also reported in 29 properties with one sample exceeding 10 times the ESL. Petroleum hydrocarbons were considered to pose an aesthetic impact and not a human health risk.
Chemical storage	Uncontrolled storage of chemical drums and containers were identified at two properties. An above ground diesel tank was observed at one property and an upturned intermediate bulk container with vegetation dieback at another property. There was an aesthetic (visual) impact identified and no chemical concentrations exceeding the ecological or human health screening criteria.
Heavy metals in groundwater	Concentrations of cadmium, copper, nickel and zinc in groundwater slightly exceeded the ASC NEPM (2013) groundwater investigation levels (GILs) for freshwater. Groundwater and surface water contamination was considered not to pose an unacceptable risk to human or environmental health for the development in the DSI (GHD, 2016b).

Based on the Airport Plan and previous investigations, the Western Sydney Airport RAP (DIRD, 2019) was prepared for the Western Sydney International Stage 1 Construction Impact Zone. The remediation methodology in the Western Sydney Airport RAP (DIRD, 2019) comprises a mixture of the following methods for the management of asbestos in soils:

- capping, containment and long-term management for the remediation and management of asbestos in soils
- visual clearance by a Licensed Asbestos Assessor (LAA)
- excavation and validation.

The methodology selected is dependent on the end land use within the Western Sydney International. Where capping and containment or certified clearance by a LAA of asbestos impacted soils occurs, the associated area is to be managed under controls specified in a Long-Term Environmental Management Plan (LTEMP) for the Western Sydney International. Where the excavation and validation of asbestos impacted soils occurs, no further controls would be required in respect of asbestos in these areas and future potential exposure to residual contamination would be managed via an unexpected finds protocol as part of the LTEMP. Unexpected finds of contamination (other than asbestos) encountered during construction would also be managed by the unexpected finds protocol.

5 Assessment of construction impacts

5.1 Off-airport construction impacts

The potential off-airport impacts from contamination, ASS and salinity to sensitive receivers are described in the following sections.

5.1.1 Existing contamination

Excavation or disturbance of existing contaminated soil and interaction with contaminated groundwater potentially could result in:

- exposure of project workers and surrounding human receptors to contamination
- generation of contaminated surface water runoff from contaminants soils which could discharge to waterways or surrounding land
- generation of solid or liquid waste requiring management in accordance with the POEO Act.

A preliminary CSM was developed in consideration of the potential AEC and contaminants of potential concern (CoPC) identified from the history review in Appendix C. The CSM assumes the absence of controls/mitigation and is conservative. Table 5-1 lists and identifies the types of sources, transport/exposure pathways and receptors that were considered in undertaking the CSM in the context of the project.

A qualitative risk ranking was then undertaken as described in Section 3.1.2 for the construction footprint. The AEC that have been ranked as medium and high-risk are listed in Table 5-2 and shown on Figure A1 to A18 in Appendix A. Mitigation measures relating to medium and high-risk AECs are discussed in Section 8.3. All other parts of the construction footprint were assessed as low risk. The low risk areas are likely to have low concentrations of herbicide and pesticide residues from past agricultural land use. Given the proposed land use they are considered to pose a low risk to human health and potential impacts to the environment can be managed by standard erosion and sediment control procedures, with an UFP.

There are also likely to be areas of unexpected contamination that has not been identified in the desktop review, such as buried waste, imported fill and USTs on private properties, that were not visible in the aerial photographs reviewed. The mitigation measures in Section 8 have included measures to identify and manage these prior to and during construction.

Table 5-1 Preliminary CSM summary of potential source, pathway and receptors applicable to the project

Potential Source- Pathway- Receptor (SPR) Description		Construction Phase	Operation Phase	Residual land
Potential Transport and Exposure Pathways	Direct/dermal contact with soil or groundwater	✓	✓	✓
	Incidental ingestion of soil or groundwater	✓	✓	✓
	Inhalation of dusts or fibres	✓	✓	✓
	Inhalation of vapours indoor, outdoor or trench	✓	✓	✓
	Recreational (primary or secondary contact) water down-gradient of the construction or operational footprint	✓	✓	✓
	Drinking water	x ¹	x ¹	x ¹
	Migration via erosion and stormwater run-off from the construction or operational footprint	✓	✓	✓

Potential Source- Pathway- Receptor (SPR) Description		Construction Phase	Operation Phase	Residual land
	Groundwater extraction (from groundwater seepage into excavations) and discharge from the construction or operational footprint	✓	✓	x
	Transport of spoil during earthworks from the construction footprint	✓	x	x
	Migration via groundwater from the construction or operational footprint	✓	✓	✓
Potential Receptors	project construction workers	✓	x	x
	Terrestrial and aquatic ecological receptors within the construction or operational footprint	✓	✓	✓
	Aquatic ecological receptors down-gradient of the construction or operational footprint	✓	✓	✓
	Human receptors (various land uses) adjacent or downgradient of the construction or operational footprint	✓	✓	✓
	Commercial/industrial land use and intrusive maintenance workers within the post-construction or operational footprint	x	✓	✓ ¹

Notes: 1. based on groundwater salinity, groundwater is not considered drinking water source in the study area.

Construction site references used in the table below are references to construction sites defined in Chapter 8 (project description – construction).

Table 5-2 Assessment of off-airport contamination impacts – areas of environmental concern and risk ranking

Construction site	AEC (as shown on figures in Appendix A)	Potential contamination sources	Consequence (C), likelihood (L) and overall risk ranking
St Marys construction site laydown area in Harris Street	AEC 1: Commuter carpark at 36-38 Harris Street, St Marys North	<ul style="list-style-type: none"> Former fuel, oil and chemical storage and use associated with historical wrecker's yard and associated potential workshops Past use of hazardous building materials (impacts to soil) Off-site industrial land use including a former bus depot and plastic manufacturing businesses. 	C3/L2 Medium
St Marys construction site: laydown area and St Marys Station and Crossover Box	AEC 2: 1 Station Street and rail corridor, current bus interchange area), St Marys South	<ul style="list-style-type: none"> Potential former fuel storage within Sydney Trains Emergency Response Depot Former railway siding activities including historical spills of fuel and oils and stockpiling Imported fill Off-site up-gradient sources of groundwater contamination: former dry cleaners and service station in Phillip Street. 	C3/L3 High

Construction site	AEC (as shown on figures in Appendix A)	Potential contamination sources	Consequence (C), likelihood (L) and overall risk ranking
	AEC 3A: Former unknown council building footprint in Chesham Street, St Marys South	<ul style="list-style-type: none"> Potential former use of hazardous building materials. 	C2/L2 Medium
	AEC 3B: St Marys Station Plaza	<ul style="list-style-type: none"> Potential chemical storage for back-up generators and air conditioning units and potential use of ACM in plaza building. Historical demolition of former buildings containing hazardous building materials. 	C2/L2 Medium
Claremont Meadows services facility construction footprint	AEC 5: 1-31 Gipps Street, Claremont Meadows	<ul style="list-style-type: none"> Stockpiling of spoil from road construction and former use as laydown area and ACM in soils. 	C2/L2 Medium
	AEC 6: 1-31 Gipps Street, Claremont Meadows	<ul style="list-style-type: none"> Off-site source of potential groundwater contamination (Gipps Street landfill and upgradient industrial sources along Greta Western Highway). 	C3/L3 High
	AEC 7: 1-31 Gipps Street, Claremont Meadows and Gipps Street	<ul style="list-style-type: none"> Contamination and landfill gases from closed Gipps Street Landfill, a former putrescible, municipal and industrial waste landfill. 	C3/L2 High
Indicative construction power route corridor for the Orchard Hills tunnel site	AEC 8: 34-102 Gipps Street Claremont Meadows	<ul style="list-style-type: none"> Closed Gipps Street Landfill, potential landfill gas migration in subsurface and landfill. 	C3/L3 High
	AEC 9: Myrtle Road Reserve	<ul style="list-style-type: none"> Potential uncontrolled filling. 	C3/L2 Medium
	AEC 10: Gipps Street (south bound) north side of Caddins Road intersection	<ul style="list-style-type: none"> Past use of hazardous building materials in formerly demolished buildings (impacts to soil). 	C2/L2 Medium
Off-airport tunnel alignment between St Marys and Orchard Hills	St Marys potential groundwater contamination sources to tunnel alignment*	<ul style="list-style-type: none"> St Marys industrial area in St Marys North and former dry cleaners at 1-7 Queen Street St Marys South. 	C3/L2 Medium
	Werrington potential groundwater contamination sources to tunnel alignment*	<ul style="list-style-type: none"> Past and current commercial/industrial businesses service stations, wreckers, bus depot, timber yard along the Great Western Highway at Werrington. 	
	Claremont Meadows potential groundwater contamination source to tunnel alignment*	<ul style="list-style-type: none"> Closed Gipps Street Landfill. 	

Construction site	AEC (as shown on figures in Appendix A)	Potential contamination sources	Consequence (C), likelihood (L) and overall risk ranking
Orchard Hills construction footprint	AEC 11 and 12: 52-62 Kent Road	<ul style="list-style-type: none"> Potential workshops and AST (52-56 Kent Road) Significant (>100 m²) unlicensed waste disposal to land or storage and use of hazardous building materials. 	C3/L3 High
	AEC 13 and 14: 52-62 and Kent Road	<ul style="list-style-type: none"> Potential use of hazardous building materials 	C2/L2 Medium
	AEC 15: 64 Kent Road AEC 28: 17-25, Lansdowne Road	<ul style="list-style-type: none"> Use of herbicides and pesticides on formerly cultivated land and use of hazardous building materials. 	C2/L2 Medium
	AEC 24 and 25 106-112 Kent Road	<ul style="list-style-type: none"> Potential workshop (AEC 24). 	C2/L2 Medium
		<ul style="list-style-type: none"> Significant (>100 m²) unlicensed waste disposal to land, and use of hazardous building materials (AEC 25). 	C3/L3 High
	<ul style="list-style-type: none"> AEC 16 and 17: 76-80 Kent Road AEC 18 and 19: 82-86 Kent Road AEC 22 and 23: 100-104 Kent Road AEC 26 and 27: 114-122 Kent Road AEC 28: 34-38 Lansdowne Road AEC 29: 28-32 Lansdowne Road AEC 30: 22-26 Lansdown Road 	<ul style="list-style-type: none"> Potential workshops, minor waste storage/on-site disposal, use or storage of hazardous building materials located within multiple rural lots. 	C2/L2 Medium
	AEC 20: 94-98 Kent Road	<ul style="list-style-type: none"> Potential cattle or sheep dip, large shed with associated stressed vegetation and use of hazardous building materials. 	C3/L3 High
	AEC 21: 94-98 Kent Road,	<ul style="list-style-type: none"> Potential use of hazardous building materials. 	C2/L2 Medium
Off-airport construction corridor (Orchard Hills to Blaxland Creek)	AEC 31a: 101 Sweetwater Grove	<ul style="list-style-type: none"> Widespread dumping and storage of wastes comprising mainly drums and bulk storage containers and other wastes including vehicles and unidentifiable items up-gradient of the construction footprint. Some visual evidence of potential dumping within the construction footprint. 	C3/L3 High
	AEC 31b: 101 Sweetwater Grove	<ul style="list-style-type: none"> Potential workshop Potential former use of hazardous building materials. 	C2/L2 Medium

Construction site	AEC (as shown on figures in Appendix A)	Potential contamination sources	Consequence (C), likelihood (L) and overall risk ranking
	AEC 32: 2 Bordeaux Place, Orchard Hills	<ul style="list-style-type: none"> Potential filled areas, areas of potential hazardous building material use within the construction footprint. 	C2/L2 Medium
Stabling and maintenance facility and off-airport construction corridor	AEC 33: 2 Bordeaux Place, Orchard Hills AEC 34: 31-39 Luddenham Road, Orchard Hills	<ul style="list-style-type: none"> Potential filled areas, areas of potential hazardous building material use within the construction footprint. 	C2/L2 Medium
	AEC 35: 43A Luddenham Road, Orchard Hills	<ul style="list-style-type: none"> Potential farm waste burial area within the construction footprint. 	C3/L3 High
Off-airport construction corridor (Patons Lane to Warragamba to Prospect Water Supply Pipelines)	AEC 36: Defence Establishment Orchard Hills, 114-122 Patons Road Orchard Hills and 1-3 Stockdale Road, Orchard Hills	<ul style="list-style-type: none"> Potential unexploded ordnance (UXO), exploded ordnance (EO) waste, potential areas of buried waste, former hazardous building materials and potential use of AFFF. 	C3/L3 High
	AEC 37: Warragamba to Prospect Water Supply Pipelines easement	<ul style="list-style-type: none"> Potential historical use of lead paint and asbestos. 	C2/L2 Medium
Off-airport construction corridor in Luddenham	AEC 38: Kennetts Airfield, 459 Luddenham Road, Luddenham	<ul style="list-style-type: none"> Fuel storage and use (AST and underground pipelines), potential storage or use of AFFF and stockpiles. 	C3/L3 High
Luddenham Road construction footprint	AEC 39: 565-581 Luddenham Road, Luddenham	<ul style="list-style-type: none"> ACM pipelines, isolated ACM in soil from former buildings and isolated zinc exceedance in soil based on previous investigations. 	C2/L3 Medium
Off-airport construction corridor in Luddenham	AEC 40: 546-640 Luddenham Road, Luddenham	<ul style="list-style-type: none"> Historical unlicensed stockpiling of waste and soil. 	C3/L3 High
Off -airport construction corridor in Badgerys Creek	AEC 41: 1953-2109 Elizabeth Drive Badgerys Creek	<ul style="list-style-type: none"> Illegal stockpiling of waste and imported soil up-gradient of construction footprint Potential use of imported fill material with potential ACM for road construction and filling in parts of the construction footprint. 	C2/L2 Medium
	AEC 42 and 43: 1793-1951 Elizabeth Drive Badgerys Creek	<ul style="list-style-type: none"> Up-gradient and within construction area - workshop (fuel/oil/chemical storage and use) and potential spray race/cattle dip (pesticides). 	C3/L3 High
	AEC 44: 1793-1951 Elizabeth Drive Badgerys Creek	<ul style="list-style-type: none"> Potential use of fill around dams north of Elizabeth Drive. 	C2/L3 Medium
Bringelly services facility	AEC 45: 40 Derwent Road, Bringelly	<ul style="list-style-type: none"> Areas of dumped wastes and potential hazardous building materials. 	C2/L3 Medium

Construction site	AEC (as shown on figures in Appendix A)	Potential contamination sources	Consequence (C), likelihood (L) and overall risk ranking
Off-airport project alignment in Bringelly	Potential groundwater contamination sources in Bringelly	<ul style="list-style-type: none"> Fuel and chemical storage on small scale commercial properties Historical agricultural activities including use of pesticides and herbicides, waste burial and chemical storage Potential historical uses of AFFF in the Bringelly area such as Bringelly Fire Station. 	C3/L2 Medium
Aerotropolis Core construction footprint	AEC 46: 225-245 Bringelly Creek Road, Bringelly	<ul style="list-style-type: none"> Unidentified items in historical aerals and former potential hazardous building materials. 	C2/L2 Medium
	AEC 47: Former OTC site, 215 Badgerys Creek Road, Bringelly	<ul style="list-style-type: none"> Former fuel/oil and chemical storage, UST, substation/power station and historical use of hazardous building materials in and around the OTC compound ACM fragments in surface soils Potential historical use of AFFF on site or from up-gradient source. 	C3/L3 High
Indicative permanent bulk power supply route corridor	AEC 48: Road corridors: Patons Lane, Erskine Park Road and Lenore Lane and John Morphett Place. Demolition of buildings/former farm sheds at the intersection of Lenore Lane and Erskine Park Road	<ul style="list-style-type: none"> Potential use of fill in road construction, roadside waste tipping Former demolition of building and structures containing hazardous building materials. 	C2/L2 Medium
Indicative temporary power supply route corridor in Kemps Creek	AEC 49: Cuthel Road and Cross Street	Illegal waste tipping.	C2/L2 Medium
	AEC 50: Easement between 130 and 140 Martin Road	Imported fill from unknown source containing asbestos and other demolition wastes.	L2/C3 Medium
	AEC 51: Easement south of 113 Western Road	Imported fill/stockpiles from unknown source containing asbestos and other demolition wastes.	L2/C3 Medium
	AEC 52: Substation: 120 Cross Street	Use and storage of oils in substation and hazardous building materials.	C2/L2 Medium
	AEC 53: Cuthel Road and Cross Street	Illegal waste tipping.	C2/L2 Medium

Notes: * Has not been referred to as an AEC - applies to potential groundwater quality related to many sources.

A decrease in groundwater levels could also have temporary impact during construction due to dewatering activities. Based on modelling undertaken and described in Technical Paper 7 (Groundwater), localised groundwater drawdown would occur within drained excavations in St Marys, Orchard Hills, Bringelly Services Facility and Aerotropolis Core Station. Limited drawdown would be expected around the Claremont Meadows Services Facility. The drawdown would cause a temporary change in groundwater gradient during construction. The impacts on potential contamination migration associated with temporary changes to groundwater levels during construction is summarised in Table 5-3.

Table 5-3 Summary of potential construction impacts from temporary groundwater drawdown

Construction site	Groundwater gradient change during construction	Potential impact
St Marys construction footprint	<p>Drawdown between 10 metres at the deepest part of excavation to 1 metre at 340 metres from the excavation.</p> <p>Flow direction change from north-westerly to towards South Creek to an inward gradient towards the station box excavation (within 340 metre radius).</p>	<p>The temporary change in local groundwater gradients could potentially temporarily alter the flow of groundwater contamination from sources in the St Marys industrial area outside the construction footprint and from a localised chlorinated hydrocarbon plume from 1-7 Queen Street.</p> <p>The potential impacts from plume migration from outside the construction footprint is considered low due to the general low permeability of the aquifer. A temporary decrease in groundwater level of 5 metres at 1-7 Queen Street could have an impact on chlorinated hydrocarbon concentrations in soil vapour at 1-7 Queen Street.</p>
Claremont Meadows Services Facility	<p>Inflows during construction are expected to be minor since the structure would be constructed within secant piled cut-off walls which would prevent horizontal flow of groundwater into the excavation. Changes in groundwater levels during construction are unlikely to occur outside of the excavation during the period of construction.</p>	<p>The location of the excavation during construction is approximately 300 metres north of the closed Gipps Street Landfill. A leachate collection trench is located along the northern and western boundary of the closed landfill at a depth of between 2.5 to 4 m bgl.</p>
Orchard Hills construction footprint	<p>Drawdown between 5 metres at deepest part of the excavation, 2 metres in parts of the construction footprint and 1 metres up to 440 metres from the excavation.</p> <p>Flow direction change from the north east/east to inward gradient towards the excavation cutting (Orchard Hills Station and dive structure).</p>	<p>There were no potential significant sources of groundwater contamination identified within 500 metres of the Orchard Hills construction site, and therefore the risk to changes in groundwater flow in context of groundwater contamination migration is low.</p>
Bringelly Services Facility	<p>Drawdown between 10 metres at deepest part of the excavation to 1 metre bgl up to 315 metres from the excavation.</p> <p>Flow direction change from the north/northwest towards Badgerys Creek to towards the excavation cutting.</p>	<p>There were no potential significant sources of groundwater contamination identified within 500 metres of the Bringelly Intermediate Services Facility construction site, and therefore the risk to changes in groundwater flow in context of groundwater contamination migration and impacts to sensitive receptors is low.</p>
Aerotropolis Core construction footprint	<p>Drawdown between 5 metre at deepest part of the excavation to 1 metre up to 270 metres from the excavation.</p> <p>Flow direction change from the north/northwest towards Badgerys Creek to towards the excavation cutting.</p>	<p>There were no potential significant sources of groundwater contamination identified within 500 metres of the Aerotropolis Core Station construction site. The risk to changes in groundwater flow in context of groundwater contamination migration and impacts to sensitive receptors is low.</p>

5.1.2 New contamination

The project construction works could result in soil, surface water or groundwater contamination from the following activities if adequate controls are not in place:

- spills of oils, fuels or chemicals from plant and equipment within the construction footprint
- accumulation of potentially contaminated sediments in sedimentation and water quality basins
- importing or backfilling of excavations with spoil which could result in exposure of project workers and surrounding human and ecological receptors to contamination if the spoil happened to be contaminated (i.e. not or incorrectly classified as VENM, ENM or other applicable exemptions)
- stockpiling of potentially contaminated spoil.

5.1.3 Salinity

Construction could result in excavation or erosion of potentially saline soils. This could cause saline surface water runoff to waterways, surrounding soils or other areas if saline soils are re-used elsewhere within the project. Saline soils can cause a decline in soil structure, plant growth and impact freshwater aquatic ecosystems. Excavation or disturbance of soils with a high salinity potential would occur at the locations listed in Table 5-4.

Construction is not expected to include activities that would result in a rise in local groundwater levels. Localised groundwater extraction would occur around the St Marys Station and Orchard Hills tunnel decline during construction, causing a localised decline in groundwater levels and discharge of treated groundwater. Potentially saline groundwater could impact on surface soils and waterways if discharged into the environment without treatment. Saline groundwater would be extracted in areas of the project where groundwater seepage accumulates in excavations.

The groundwater would require treatment to reduce salinity prior to discharge to creeks. The completion of the project could result in a rise in groundwater levels in some areas of the project alignment during operation based on modelling undertaken and presented in Technical Paper 7 (Groundwater). This is discussed in Section 6.1.3.

Table 5-4 Soil salinity construction impacts - off-airport

Construction site	Area	Type of earthworks
Off-airport construction corridor	Blaxland Creek riparian zone (see Figure 4-2)	<ul style="list-style-type: none"> • Pilings and footing excavations for viaduct or bridge • Surface disturbance for at grade construction
	Unnamed Creek south of Patons Lane riparian zone (see Figure 4-2)	<ul style="list-style-type: none"> • Pilings and footing excavations for viaduct or bridge • Surface disturbance for at grade construction
	Cosgroves Creek (see Figure 4-2)	<ul style="list-style-type: none"> • Pilings and footing excavations for viaduct or bridge • Surface disturbance for at grade construction
	Badgerys Creek (see Figure 4-2)	<ul style="list-style-type: none"> • Surface disturbance for at grade construction

5.1.4 Acid sulfate soils

Excavation of soils with a potential for inland ASS could occur at a number of locations in the construction footprint during construction. These areas and activities are the same as those listed in Table 5-4. If PASS are present, they are not expected to be present or excavated in large quantities, as they would be expected to be limited in vertical extent and the excavation works in the areas of risk, would be localised pilings and footings for the viaduct structures. The potential impact from disturbance of PASS would be expected to be localised and not significant if encountered and mitigation measures implemented. If ASS are disturbed, runoff from excavated soils can be acidic and

leach iron, aluminium and other heavy metals. These heavy metals and acids can leach into soil and groundwater or impacted runoff can enter waterways and have negative impacts on water quality and aquatic ecosystems.

5.2 On-airport construction impacts

5.2.1 Existing contamination

There were areas assessed as low, medium and high risk for asbestos within the Western Sydney International in the previous DSI (GHD, 2016) and areas assessed as containing asbestos during further delineation investigations as per the Western Sydney Airport RAP (DIRD, 2019).

It is anticipated that remediation of the Western Sydney International Stage 1 Construction Impact Zone would be complete prior to construction of the project. However, given that the project would involve construction activities and construction depths that may vary from those associated with Western Sydney International, Sydney Metro would also develop a project-specific Remediation Action Plan (Sydney Metro RAP). The Sydney Metro RAP would be prepared in a manner consistent with the Western Sydney Airport RAP (DIRD, 2019) to the extent practicable, and would be applied to any contamination encountered by Sydney Metro that has not been remediated by Western Sydney Airport.

Previous investigations and remediation undertaken to date within the on-airport site identified significant volumes of asbestos in soil. The asbestos was mainly identified in shallow soils (generally less than 0.2 m bgl) and stockpiles. There were two high-risk areas for chemical contamination (i.e. non-asbestos contamination) within the construction footprint in the viaduct segment pre casting facility (Figure A20 in Appendix A). Based on the previous investigations, the likelihood of chemical contamination presenting an unacceptable risk to ecological and human receptors was considered low. Chemical contamination, if encountered, is expected to be in isolated areas and present an on-site aesthetic (visual) impact during construction.

A preliminary CSM and risk ranking in context of the project was completed and is presented in Appendix D. The risk ranking relating to the construction footprint is summarised in Table 5-5.

Table 5-5 Assessment of off-airport contamination impacts and risk ranking

Construction	Contamination	Consequence (C), likelihood (L) and overall risk ranking
On-airport construction corridor	Areas of contamination mainly asbestos in soil with potential isolated areas of chemical contamination from past agricultural and light industrial land uses. The construction footprint would possibly be remediated during Western Sydney International Stage 1 works prior to project construction. Some areas may contain capped contamination or be subject to management plans where there is still a potential for contamination to remain in-situ which might be disturbed during construction.	C2/L2 Medium
Airport Business Park Station		C2/L2 Medium
Airport Terminal Station		C2/L2 Medium
Western Sydney International tunnel portal and Airport Terminal Station		C2/L2 Medium
Airport construction support site (outside the Western Sydney International Stage 1 Construction Impact Zone)	Areas of contamination mainly asbestos in soil with potential isolated areas of chemical contamination from past agricultural and light industrial land uses.	C2/L3 Medium
On-airport project alignment (tunnel)	Groundwater contamination within the Western Sydney International has been assessed as low risk with slightly elevated concentrations of heavy metals.	Low

Management of contaminated soils could result in other environmental impacts if transported off-site to be appropriately disposed at an appropriately licensed facility. These impacts would be reduced if on-site containment or off-site beneficial re-use under a resource recovery exemption was undertaken. These impacts have been assessed in the waste and resources Chapter 24 of the Environmental Impact Statement.

5.2.2 New contamination

As described in Section 5.1.2, activities such as fuel, oil and chemical storage/use, stockpiling and importation of fill could result in soil, surface water or groundwater contamination if adequate controls are not in place.

The construction works would also include the construction of a permanent fill placement area within the Western Sydney International, outside of the Stage 1 development area. The permanent fill placement area would be used to store spoil from the project.

5.2.3 Salinity

Excavation of soils within an area of known high salinity in the Airport Terminal Station construction site would be required. If excavated, runoff or re-use of high salinity soils could cause localised impacts to soil and mitigation measures would be required

Construction is not expected to include activities that would result in a rise in local groundwater levels. Groundwater extraction would be required for the cut and cover sections of the construction corridor. The groundwater extracted is likely to have high salinity. Discharge of the groundwater without treatment to surface soils or Badgerys Creek would contribute to degradation of soil and water quality. The completion of the project could result in a rise in groundwater levels west of the cut and cover tunnel during operation and is discussed in Section 6.2.3.

There would also be widespread excavation and disturbance of soils with medium likelihood of soil salinity across the airport. Areas of saline soils could be encountered which could also contribute to local degradation of soil and water quality. Saline groundwater extracted from areas of the construction footprint could adversely impact water quality in Badgerys and Oakey Creek if not treated prior to discharge.

5.2.4 Acid sulfate soils

Excavation of soils with a potential for inland ASS could potentially occur around the Badgerys Creek and Oaky Creek riparian zones for excavations associated with parts of the Airport construction support site, construction corridor, Airport Terminal Station and Airport Business Park Station construction sites. If ASS are present, they are not expected to be present or excavated in large quantities. The potential impact from disturbance of ASS would be expected to be localised if encountered.

If ASS are disturbed, run-off from excavated soils can be acidic and leach iron, aluminium and other heavy metals. These heavy metals and acids can leach into soil and groundwater or impacted runoff can enter waterways and have negative impacts on water quality and aquatic ecosystems.

6 Assessment of operation impacts

6.1 Off-airport operation impacts

The potential off-airport impacts from contamination, ASS and salinity to sensitive receivers are described in the following sections. The project design includes some operational features that are designed to prevent or minimise impacts, these are:

- a water treatment plant at St Marys Station and Bringelly services facility to treat wastewater pumped from the tunnels and other below ground facilities as a result of stormwater entering the tunnel portals, fire suppression water or ingress of groundwater
- water quality treatment basins.

6.1.1 Contamination

The potential contamination sources to soil, surface water and groundwater from the operation of the project comprise:

- potential chemical storage or use and activities at the stabling and maintenance facility including:
 - chemical and oil storage and use within the infrastructure maintenance shed
 - train wash facilities (oil and grease and cleaning chemicals)
 - oil within the traction substation
 - wheel lathe (heavy metals)
 - water quality treatment and on-site detention basin (secondary source of contamination)
- potentially contaminated stormwater and groundwater flowing into the open cutting tunnel portals and fire suppression water in tunnels
- water quality treatment plant chemical treatment tanks at St Marys Station and Bringelly Services Facility used to treat stormwater and groundwater ingress or fire suppression water in the tunnels
- stormwater runoff from tracks which may contain slightly elevated concentrations of heavy metals and oils from train operations.

The above could potentially cause localised soil and sediment contamination, groundwater and surface water pollution if not managed appropriately. The receptors that could be potentially impacted include:

- ecological and human recreational receptors in Blaxland Creek, South Creek, Claremont Creek, Cosgroves, Badgerys Creek and Thompsons Creek
- on-site terrestrial ecological receptors
- on-site intrusive maintenance and commercial workers.

6.1.2 Acid sulfate soils

Potential inland ASS are not expected to be disturbed during operation of the project.

6.1.3 Groundwater salinity

Technical Paper 7 (Groundwater) modelled and predicted changes to groundwater levels associated with the permanent structures associated with St Marys Station and the Orchard Hills excavation cutting. The assessment indicated that groundwater level rise at these locations was unlikely to be major, except close to the structures. The rise at St Marys was predicted to be south of the structure at 0.6 metres and 0.2 metres at Orchard Hills drained cutting. A similar change in groundwater level is expected for Aerotropolis Core Station. The change was anticipated to be within the range of natural groundwater level fluctuation and not expected to have an impact on soil salinity.

Saline groundwater would be required to be managed during the project and is described in Technical Paper 7 (Groundwater). Other sources of salinity are from the water quality and detention basins which could contain increased dissolved salts from runoff from the stabling and maintenance facility or saline soils.

6.2 On-airport operation impacts

The project design includes some operational features that are designed to prevent or minimise impacts, these are:

- a water treatment plant located off-airport at the Bringelly services facility to treat wastewater pumped from the tunnels and other below ground facilities as a result of stormwater entering the tunnel portals, fire suppression water or ingress of groundwater
- water quality treatment basins.

6.2.1 Contamination

The potential impacts to soil, surface water and groundwater from the operation of the project comprise:

- stormwater and groundwater ingress into the tunnel portal that may contain slightly elevated concentrations of chemical contaminants
- stormwater runoff from tracks which may contain slightly elevated concentrations of heavy metals and oils from train operations.

The project would connect to sedimentation dams and water quality ponds to capture and treat surface water prior to discharge to Badgerys Creek. The impacts to soils, surface water and groundwater are expected to be negligible.

6.2.2 Acid sulfate soils

Potential inland ASS are not expected to be disturbed during operation of the project.

6.2.3 Groundwater and salinity

Groundwater modelling undertaken for Technical Paper 7 (Groundwater) indicated the undrained tunnels and associated structures would cause relatively minor increases in groundwater level over the long term. The greatest increase was predicted to occur closest to the tunnels where the natural groundwater level is deep and unlikely to cause any impact in the shallow soils. Although there may be a broader increase in water levels upgradient, this change was generally considered to be within the range of natural groundwater level variation. The project would include sedimentation dams and water quality ponds to capture and treat surface water prior to discharge to Badgerys Creek (see Technical Paper 6 (Hydrology, flooding and water quality)). The sedimentation ponds could result in accumulation of saline sediments. These sedimentation ponds would use salt tolerant species and therefore the impacts to soils and surface water are expected to be negligible. Minor changes to groundwater infiltration caused by the permanent soil and detention basins changes to infiltration are expected to be small, with only minor changes in groundwater level occurring as a result.

7 Cumulative impact

There is the potential for cumulative contamination quality impacts from the project and other proposed developments surrounding the project. The projects that have the potential to have a cumulative impact with the project were considered and screened in Chapter 24 (cumulative impacts) of the Environmental Impact Statement. The projects considered to be relevant for the contamination assessment include:

- Western Sydney International
- future M12 Motorway
- The Northern Road
- St Marys Intermodal Facility.

A brief description of these projects and qualitative assessment of associated potential cumulative impacts during construction and operation is included below. It is noted that management of contamination, where required, could indirectly contribute to cumulative impacts related to traffic, air quality and waste during construction. Assessment of cumulative impacts for these are addressed in Chapter 24 (cumulative impacts) of the Environmental Impact Statement, as well as Chapter 22 (air quality), Chapter 9 (transport) and Chapter 18 (resource management).

7.1 Western Sydney International

Western Sydney International will be developed in a number of stages. The Stage 1 development commenced in September 2018 and will continue until opening of the airport in 2026. Future development would occur in the following decades in line with demand. The bulk earthworks component of the Stage 1 development involves the movement of over 20 million cubic metres of soil and rock to level the area to allow for construction of the airport runways and infrastructure.

The project alignment runs through the Stage 1 development area and part of the indicative area for the long term development shown in the Airport Plan. The Western Sydney Airport RAP (DIRD, 2019) was developed for the Stage 1 development area and remediation works are subject to a non-statutory Section A site audit, in general accordance with the CLM Act 1997. The strategy in the Western Sydney Airport RAP (DIRD, 2019) could apply to areas outside the Stage 1 development and would be amended where required and appropriate.

Due to the staging of Western Sydney International construction works, it is likely that parts of the project construction footprint would be remediated prior to construction. However, given that the project would involve construction activities and construction depths that may vary from those associated with Western Sydney International, Sydney Metro would also develop a project-specific Remediation Action Plan (Sydney Metro RAP). The Sydney Metro RAP would be prepared in a manner consistent with the Western Sydney Airport RAP (DIRD, 2019) to the extent practicable, and would be applied to any contamination encountered by Sydney Metro that has not been remediated by Western Sydney Airport.

Potential cumulative impacts related to contamination include increased volumes of spoil going to landfill, surface water and groundwater discharges, cross contamination of soils between the projects or disturbance of already remediated areas within the Western Sydney International. Cumulative impacts for surface water are discussed in Technical Paper 6 (Hydrology, flooding and water quality) and groundwater in Technical Paper 7 (Groundwater).

Consultation would occur with Western Sydney International to manage the interface of soil, groundwater and contamination management between the two projects. This would be undertaken throughout planning and construction.

Operation of the off-airport and the on-airport components of the project would be undertaken in accordance with the applicable Commonwealth and NSW regulatory regime, which includes the Airports (Environment Protection) Regulations 1997.

7.2 M12 Motorway

A new motorway is being delivered between the M7 Motorway, Cecil Hills and The Northern Road in Luddenham over a distance of about 16 kilometres. Construction of the project is expected to start in 2022 and be open to traffic before the opening of the Western Sydney International Airport in 2026.

The M12 Motorway would pass under the project alignment about 1.5 kms north of Elizabeth Drive. The future off ramps and connection road to Elizabeth Drive would be located around 200 metres to the east of the project alignment. Elizabeth Drive would be modified to pass over the project alignment.

An Environmental Impact Statement has been prepared for the future M12 Motorway. The contamination assessment for the future M12 Motorway identified the area of potential filling located at 1953-2109 Elizabeth Drive and directly adjacent to the interface with the project as an AEC. The mitigation measure to address the contamination risk at the location, which was ranked as high, was to undertake a detailed site investigation prior to construction.

Potential cumulative impacts related to contamination include increased volumes of spoil going to land fill, cross contamination of soils between the projects or disturbance of already remediated areas within the project. Consultation would occur with the future M12 Motorway project to manage the interface of soil and contamination management between the two projects during construction, due to their overlapping timeframes. This would be undertaken during detailed design and when the project construction programmes are better defined.

The future M12 Motorway project includes sedimentation and water quality basins to collect and treat stormwater runoff during construction. There would also be permanent water quality basins for the operation of the motorway. Emergency spill response procedures would be in place during operation of the motorway to reduce impacts to soil, groundwater and surface water.

7.3 The Northern Road

Consisting of upgrade of a 35-kilometre section of The Northern Road between Mersey Road, Bringelly and Glenmore Parkway in Glenmore Park. The Northern Road upgrades are being delivered in stages with some stages completed and the final stages having started construction in 2019.

The upgrade is being delivered in six stages. All stages are expected to be operational by 2021 except Stage 5, which is expected to be operational in 2022. The construction of Stage 5 could possibly occur at the same time as the project. Other stages will be operational by the time construction of the project commences.

The Northern Road Stage 5 is around 4 kms west of the project alignment and there are not expected to be any interfaces between the two projects in relation to contamination management. The Northern Road project has conditions of approval which require that site contamination investigations and remediation are undertaken where required. The works also require implementation of measures to prevent contamination to soil, surface water and groundwater from construction activities, provided the project is completed in accordance with conditions of approval, legislation under the CLM Act and POEO Act, cumulatively the projects should reduce the risks of existing land contamination.

7.4 St Marys Intermodal

St Mary's Intermodal is a planned inland container terminal located about 400 metres west of St Marys Station, at Lot 2 Forrester Road St Marys. The container terminal would be located on the east side of the existing rail siding and cover an area of nine hectares. The footprint of the St Mary's Intermodal construction and the project do not overlap. The St Mary's Intermodal construction works are likely to be completed in late 2020 or early 2021 prior to the commencement of the project construction works, but could potentially overlap for a period of less than 6 months.

The Environmental Impact Statement for the St Mary's Intermodal project (Site planning + design, 2019) went on exhibition in August 2019. Soil and groundwater investigations were undertaken for the project and a RAP prepared to remediate asbestos impacted fill. The remediation options proposed in the RAP include off-site disposal of excavated soils to landfill, an on-site containment cell or on-site treatment (physical sorting and separation of ACM from soil). The remediation and construction works

for the St Mary's Intermodal are not expected to have any impact on the project as it is located outside and down-gradient of the project construction footprint.

There are not expected to be any interfaces between the two projects in relation to contamination management. An operational waste management plan would be prepared to prevent water and soil pollution during operation of the St Marys Intermodal site.

8 Proposed management and mitigation measures

8.1 Approach to management and mitigation

This chapter describes the environmental management approach for the project for contamination during construction and operation.

A Construction Environmental Management Framework (CEMF) (Appendix F of the Environmental Impact Statement) describes the approach to environmental management, monitoring and reporting during construction. Specifically, it lists the requirements to be addressed by the construction contractor in developing the CEMP, sub-plans, and other supporting documentation for each specific environmental aspect.

A Spoil Management Plan and a Soil and Water Management Plan would be developed for the project as identified by Section 6 and Section 12 of the CEMF. The CEMF also identifies protocols for environmental monitoring, inspections, auditing and reporting.

The chapter includes a compilation of the performance outcomes for the Spoil Management Plan and a Soil and Water Management Plan, as well as mitigation measures that would be included in the Plan.

8.2 Performance outcomes

Performance outcomes have been developed consistent with the requirements of the SEARs for the project. The performance outcomes for the project are summarised below in Table 8-1 and identify measurable, performance-based standards for environmental management.

Table 8-1 Performance outcomes for the project in relation to contamination

SEARS desired performance outcome	Project performance outcome	Timing
The environmental values of land, including soils, subsoils and landforms, are protected Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid sulfate soils and site contamination	Contamination risks to human health and ecological receivers are minimised through effective management of existing contaminated land	Construction
	Contaminated land and soil within the footprint of the project is remediated where required, to ensure the land is suitable for the intended future land use	Operation

8.3 Proposed mitigation measures

8.3.1 Construction

Managing existing contamination

The construction footprint of the project has been assessed and AECs identified. AECs have been ranked as either low, medium or high risk for potential impacts from existing contamination, and associated mitigation measures have been identified on the assumption that all land within the construction footprint would be subject to disturbance during the construction phase.

Prior to the commencement of construction, infrastructure designs and construction management requirements would be reviewed to confirm the spatial footprint of disturbance. Where changes in the expected level of disturbance are evident, the affected AECs (and parts thereof) will be reassessed against the risk ranking matrix.

The mitigation measures for low risk areas, medium risk AECs and high-risk AECs in the off-airport construction footprint (see to Figure A1 to A18 in Appendix A) and the construction sites within the on-airport construction footprint (Figure A19 to A22) are listed in Table 8-2.

Soil and groundwater investigations would be for the CoPC identified from the desktop review, site inspections and observations during sampling, as detailed in Sampling, Analysis and Quality Plan (SAQPs). The investigations would include PFAS assessment in accordance with the *Sydney Metro IMS – Contaminated Land Management Guidelines* and the HEPA (2020) PFAS NEMP 2.0. As PFAS is an emerging contaminant, and the understanding of the sources, potential risks and guidelines are presently evolving, Sydney Metro has undertaken a conservative approach to management of PFAS. In the event of any uncertainty when applying the above mitigation measures to PFAS contamination, Sydney Metro will collaborate with the NSW EPA.

Groundwater quality and level monitoring would be undertaken prior to construction to inform detailed design and during construction to monitor potential changes in groundwater level and quality over the construction period.

Acid sulfate soils

Soil investigations would be undertaken prior to construction to assess the identified potential areas of inland ASS areas where excavation would be undertaken (see Section 6.1.3 and 6.2.3). ASS would be assessed in accordance with ASSMAC (1998) guidelines if greater than one tonne of ASS would be disturbed. An ASSMP would be prepared if the action criteria are exceeded.

Salinity

Areas of high or known soil salinity (see Figure 4-2) that require disturbance during construction would be investigated prior to construction by sampling and analysis. If saline soils are identified they would be either avoided during construction (i.e. not disturbed), erosion protection measures implemented and not be reused within the construction footprint, unless in accordance with practices in *Book 4 Dryland Salinity: Productive Use of Saline Land and Water* (NSW DECC 2008). The excavated saline soils unable to be reused would be classified and disposed to an appropriately licensed waste facility.

Groundwater from excavations would require disposal during the construction of the project. The extracted groundwater may be contaminated at concentrations that require treatment by a water quality treatment plant prior to discharge to South Creek and Badgerys Creek. Groundwater quality investigation and assessment would be undertaken within the proposed excavation areas to assess the concentrations of contaminants in groundwater. The water quality treatment plant would be designed to treat the water to meet the discharge criteria.

Surface water runoff would be collected in water quality basins and monitored during construction for salinity. Details of the surface water management and mitigation measures are described in Chapter 17 (Flooding, Hydrology and Water Quality) of the Environmental Impact Statement.

Spoil management

A Spoil Management Plan would be prepared for the project. The high-level approach and hierarchy for spoil management includes:

- Priority 1: Reuse of spoil in construction of the project off-airport or on-airport, where spoil is suitable (or can be made suitable through remedial actions) for the placement location under the applicable regulatory regime
- Priority 2: Reuse of spoil for other development projects (e.g. Western Sydney International or for other projects off-site) where spoil meets the requirements of the regulatory regime and approvals for the receiving site
- Priority 3: Recycling of materials at off-site facilities in accordance with the licenses and approvals of the recycling facility

- Priority 4: Off-site disposal to landfill in accordance with the licenses and approvals of the facility.

Impacts from construction activities

The potential for contamination caused during construction from plant and equipment, chemical storage and use would be managed by the implementation of spill prevention and emergency spill response procedures to be detailed in a CEMP. The CEMP will include protocols for preventing stockpiles containing chemical or asbestos contamination impacting human or environmental receptors. Standard protocols would include placement of stockpiles on liners or sealed surfaces with erosion control and temporary covering or hydroseeding, where appropriate. The CEMP soil and surface water management measures would be prepared in accordance with the Landcom (2004), *Managing Urban Stormwater: Soils and construction* guidelines.

At construction demobilisation, a final site inspection of the construction sites will be undertaken by a qualified contaminated lands practitioner to visually inspect for indicators of soil contamination. The inspection would target areas where plant, equipment and chemicals/fuels have been stored and of stockpiling sites. Redundant sedimentation basins would be decommissioned and validated. Where visual observations of contamination are made the same procedure as the UFP would be followed.

Areas of the off-airport construction footprint that are not part of the project operational footprint and were acquired by Sydney Metro would be assessed post construction in accordance with guidelines under the CLM Act by Sydney Metro for future land use.

8.3.2 Operation

Environmental performance during operation of the project would be managed by the implementation of an operational environmental management plan or system. The plan or system would be prepared to be consistent with the Airport Rail Integration Deed for the project, the Airport Plan (as varied) and the Critical State Significant Infrastructure conditions of approval and would apply consistently to the on-airport and off-airport components of the project. Areas of the off-airport construction footprint that are not part of the project operational footprint and were acquired by Sydney Metro would be assessed post construction in accordance with guidelines under the CLM Act by Sydney Metro for future land use.

8.3.3 Proposed mitigation measures

The construction and operation mitigation measures are listed in Table 8-2. It is noted that mitigation measures on-airport would be consistent with the remediation and management strategies undertaken for the Western Sydney International project where appropriate.

Table 8-2 Mitigation measures

Ref	Proposed mitigation measure	Applicable location(s)
Construction		
SC1	<p>The Soil and Water Management Plan would incorporate the following measures:</p> <ul style="list-style-type: none"> • for low risk areas of environmental concern, worker health and safety measures, waste management and tracking for contamination would be outlined. • for medium and high risk areas of environmental concern, detailed site inspections and review of further available information would be undertaken prior to the start of construction 	All
SC2	<p>Based on outcomes of SC1:</p> <ul style="list-style-type: none"> • if a medium or high risk area of environmental concern is reassessed as low, the site would be managed in accordance with the Soil and Water Management Plan. This would typically occur where there is minor, isolated contamination that can be readily remediated through standard construction practices such as excavation and off-site disposal • for medium risk areas of environmental concern, if the risk for the areas of environmental concern remains medium, visual 	Off-airport

Ref	Proposed mitigation measure	Applicable location(s)
	<p>inspections and monitoring would be performed during earthworks. If suspected contamination is encountered, the materials would be subject to sampling and analysis to assess management requirements in accordance with NSW Environment Protection Authority statutory guidelines</p> <ul style="list-style-type: none"> for areas of environmental concern that remain or change to high risk, a Sampling, Analysis and Quality Plan would be prepared for Detailed Site Investigations or data gap investigations. The results from the site investigations would be assessed against criteria contained within the National Environment Protection (Assessment of Site Contamination) Measure (2013) and other applicable NSW statutory guidelines to assess whether remediation is required. Remediation works would be performed in accordance with the hierarchy of preferred strategies in the Guidelines for the NSW Site Auditor Scheme (NSW Environment Protection Authority, 2017). Where practical, remediation works would be integrated with excavation and development works performed during construction 	
SC3	<p>Where information gathered from investigations for medium and high risk areas of environmental concern (as per mitigation measure SC1) is insufficient to determine the risk of contamination, a detailed site investigation would be carried out in accordance with the <i>National Environment Protection Measure</i> (2013) and other guidelines made or endorsed by the NSW Environment Protection Authority</p> <p>Where data from the additional data review (mitigation measure SC1) or the detailed site investigation (mitigation measure SC2) confirms that contamination would require remediation, a Remediation Action Plan would be developed for the area of the construction footprint</p> <p>If a Remediation Action Plan is required, it would be developed in accordance with NSW Environment Protection Authority statutory guidelines and a Site Auditor would be engaged. Remediation methodologies would be undertaken in accordance with Australian Standards and other relevant government guidelines and codes of practice</p> <p>Remediation would be performed as an integrated component of construction and to a standard commensurate with the proposed end use of the land</p>	Off-airport
SC4	<p>If a duty to report to the NSW Environment Protection Authority under Section 60 of the Contaminated Lands Management Act 1997 is triggered, or where a medium to high risk of contamination is identified, an accredited Site Auditor would review and approve the Remediation Action Plan, and would develop a Site Audit Statement and Site Audit Report upon completion of remediation.</p>	Off-airport
SC5	<p>An unexpected finds procedure would be developed and implemented as part of the project Soil and Water Management Plan, outlining a set of potential contamination issues which could be encountered, and detailing the corrective actions to be implemented. The unexpected finds procedure would include a process for chemical and asbestos contamination and would generally include:</p> <ul style="list-style-type: none"> cessation of works within the affected area until inspection of the suspected contamination by a qualified contaminated lands consultant (verification by a certified contaminated land practitioner) 	All

Ref	Proposed mitigation measure	Applicable location(s)
	<ul style="list-style-type: none"> collection of soil samples for chemical or asbestos analysis based on observations assessment of results against applicable land use or waste classification criteria in accordance with NSW Environment Protection Authority statutory guidelines management of the contamination in accordance with NSW Environment Protection Authority statutory guidelines the unexpected finds procedure for on-airport construction would be consistent with the Western Sydney Airport unexpected finds procedure detailed in the Soil and Water Construction Environmental Management Plan (Western Sydney Airport, 2019) 	
SC6	Post construction, an inspection of construction, stockpiling and laydown sites and soil validation of redundant sedimentation/water quality basins would be undertaken to assess if further investigation and remediation is required. Investigation and remediation (if required) would be undertaken in accordance with the Soil and Water Management Plan (off-airport) and a project specific Remediation Action Plan that would be consistent with the Western Sydney Airport Remediation Action Plan (2019) (on-airport). All inspections, investigations and remediation would be undertaken by a qualified contaminated lands consultant (verified by a certified contaminated land practitioner)	All
SC7	Prior to ground disturbance in areas of potential acid sulfate soil occurrence, testing would be carried out to determine the actual presence of acid sulfate soils. If acid sulfate soils are encountered, they would be managed in accordance with the Acid Sulfate Soil Manual (Acid Sulfate Soil Management Advisory Committee, 1998)	All
SC8	Prior to ground disturbance in high probability salinity areas testing would be carried out to determine the presence of saline soils. If salinity is encountered, excavated soils would not be reused or would be managed in accordance with Book 4 Dryland Salinity: Productive Use of Saline Land and Water (NSW DECC 2008). Erosion controls would be implemented in accordance with the Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom, 2004)	All
SC9	Targeted groundwater investigations would be undertaken prior to construction to identify high salinity areas at risk from rising groundwater. Where high saline areas (>1000 µS/cm) are identified, measures such as planting, regenerating and maintaining native vegetation and good ground cover in recharge, transmission and discharge zones would be implemented where possible	All
SC10	Where the construction footprint is not used as part of the operational footprint (residual land), a site suitability assessment for the proposed land use would be undertaken in accordance with NSW Environment Protection Authority statutory guidelines.	Off-airport
SC11	<p>For works within Western Sydney International:</p> <ul style="list-style-type: none"> a review of further available information from Western Sydney Airport would be undertaken prior to the commencement of construction, which may include review of investigations, the Western Sydney Airport Remediation Action Plan and validation reports any remediation works (for contamination encountered by Sydney Metro that has not been remediated by Western Sydney Airport) would be undertaken in accordance with the Sydney Metro Remediation Action Plan, developed in a manner consistent with 	On-airport

Ref	Proposed mitigation measure	Applicable location(s)
	the Western Sydney Airport Remediation Action Plan (Department of Infrastructure and Regional Development, 2019) to the extent practicable.	

9 Conclusion

This technical paper has documented the potential impacts of the project from existing and new contamination, salinity and ASS as discussed below.

9.1 Off-airport construction impacts

Potential existing areas of contamination were identified within the off-airport construction footprint that could have an adverse impact on human or ecological health if disturbed during construction or remain during operation of the project. The sources of contamination include past industrial land uses, former dry cleaners and service stations, landfills, defence activities, illegal waste dumping, fuel, oil or chemical storage and use and historical use of hazardous building materials.

The off-airport construction footprint has been ranked as either high, medium or low risk based on the likelihood of contamination, the project construction and the preliminary CSM. Areas of high and medium risk has been identified in numerous parts of the construction footprint.

Areas of potential high salinity, known salinity impacts and potential inland ASS were identified in several areas of the construction footprint. Disturbance of saline soils and ASS could cause adverse impacts to receiving environments from runoff if not managed appropriately.

9.2 On-airport construction impacts

Previous investigations within the on-airport construction footprint have identified asbestos in soil in many areas of the Western Sydney International. There are areas that have been mapped as medium risk of asbestos contamination within parts of the construction footprint in the Western Sydney Airport RAP (DIRD, 2019). Chemical contamination would be expected to be limited in extent if present based on previous investigations.

Areas of potential high salinity, known salinity impacts and potential inland ASS were identified in several areas of the construction footprint. Disturbance of saline soils and ASS could cause adverse impacts to receiving environments from runoff if not managed appropriately.

9.3 Construction and operational impacts

Construction and operational activities could also result in soil, surface water or groundwater contamination from spills from plant and equipment. Spoil management during construction if not managed appropriately could also create adverse impacts to human and ecological health. Potentially contaminated groundwater extracted during construction and operation may also require treatment prior to discharge to the receiving environment.

Environmental impacts from existing contamination, salinity, ASS and construction activities would be mitigated by implementation of control measures during construction by a Spoil Management Plan and a Soil and Water Management Plan within the CEMP prepared for the project. The impacts during operation would be mitigated by implementation of an operational environmental management plan or system.

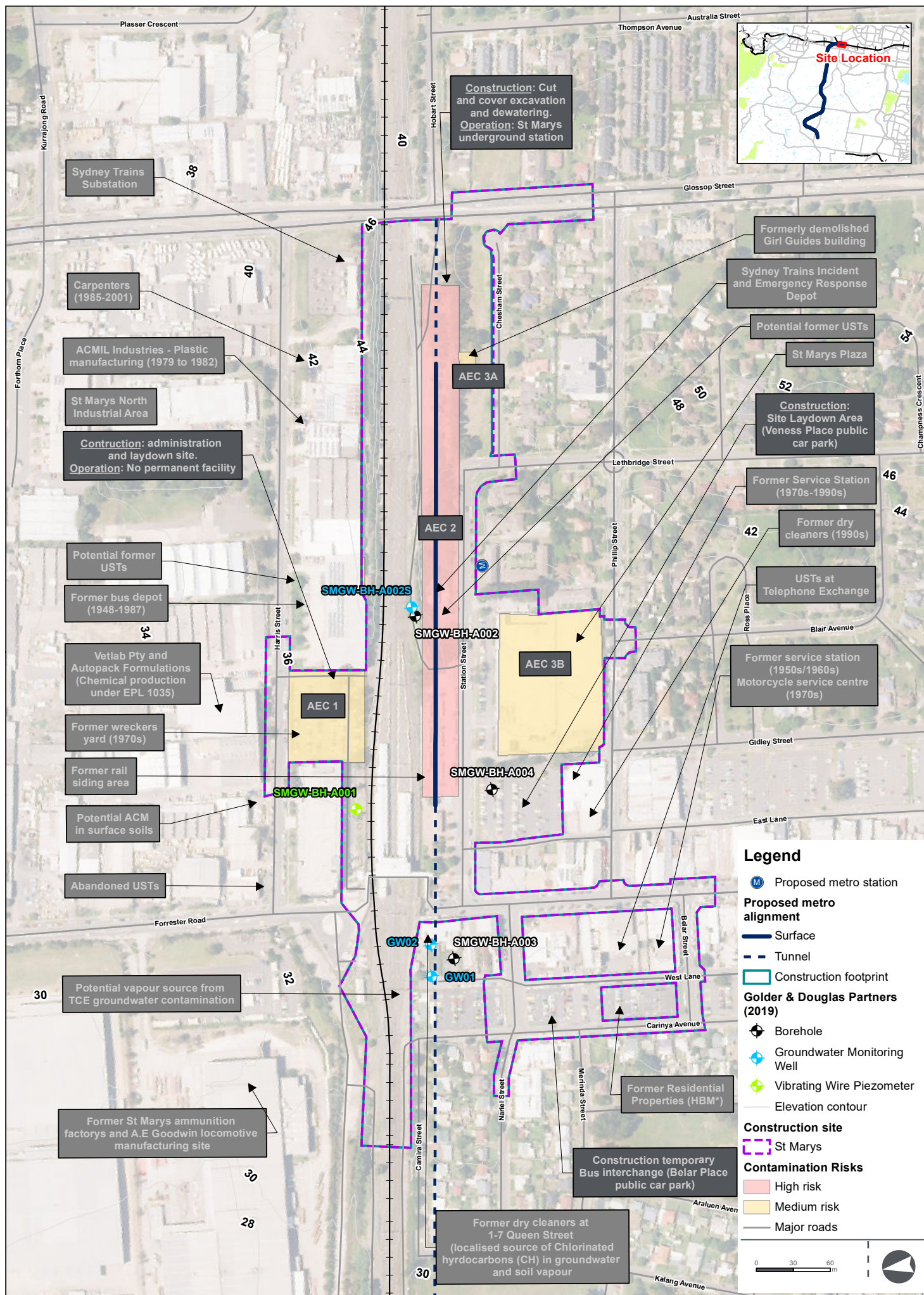
10 References

- Australian and New Zealand and Australian State and Territory Governments (ANZAST), 2018, Australian and New Zealand Guidelines for Fresh and Marine Water Quality
- Acid Sulfate Soils Management Advisory Committee (ASSMAC), 1998, Acid Sulfate Soils Assessment Guidelines. August 1998
- Department of Land and Water Conservation, 2002, Site Investigation for Urban Salinity
- DIRD 2016, Western Sydney Airport - Environmental Impact Statement, 2016
- DIRD 2019, Western Sydney Airport Remediation Action Plan, Prepared by GHD
- GHD, 2016a, Preliminary (Phase 1) Contamination Assessment Report, Proposed Western Sydney Airport, February 2016
- GHD, 2016b, Detailed Site Contamination Investigation, Proposed Western Sydney Airport, February 2016
- Golder and Douglas Partners, 2019a, Supplementary Site Investigation, 1-7 Queen Street, St Marys, NSW, 17 July
- Golder and Douglas Partners, 2019b, Groundwater Monitoring Report, Sydney Metro West Geotechnical Investigation, 15 October
- Golder and Douglas Partners, 2019c, Factual Contamination Report – Preliminary Site Investigation, 1 November
- Heads of EPAs Australia and New Zealand (HEPA), 2020, PFAS National Environmental Management Plan 2.0, February (NEMP)
- Landcom, 2004, Managing Urban Stormwater: Soils and construction – Volume 1, 4th Edition
- NSW Environment Protection Authority (NSW EPA), 2015, Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997
- NSW EPA, 2019, Assessment and Management of Hazardous Ground Gases: Contaminated Land Guidelines.
- NSW EPA, 2017, Guidelines for the NSW Site Auditor Scheme (3rd edition)
- NSW EPA, 2018, Guidelines on resource recovery orders and exemptions for the land application of waste materials as fill
- NSW Department of Environment and Conservation (DEC), 2005, Guidelines for Assessing Former Orchards and Market Gardens
- NSW DEC, 2007, Guidelines for the Assessment and Management of Groundwater Contamination
- NSW DECC, 2008. Book 4 Dryland Salinity: Productive Use of Saline Land and Water.
- NSW DECC, 2009, Guidelines for Implementing the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008
- NSW DECCW, 2010, UPSS Technical Note: Decommissioning, Abandonment and Removal of UPSS
- NSW DECCW, 2010, UPSS Technical Note: Site Validation Reporting
- National Environment Protection Council (NEPC), 1999, National Environment Protection (Assessment of site Contamination) Measure 2013 (the ASC NEPM)
- NSW Office of Environment and Heritage (OEH), 2011, Guidelines for Consultants Reporting on Contaminated Sites
- NSW Department of Urban Affairs and Planning (DUAP) and NSW EPA 1998, Managing Land Contamination, Planning Guidelines SEPP 55-Remediation of Land
- NSW EPA, 2016, Environmental Guidelines: Solid Waste Landfills, Second Edition

Western Sydney Airport Soil and Water Construction Environmental Management Plan, December 2019

Appendix A

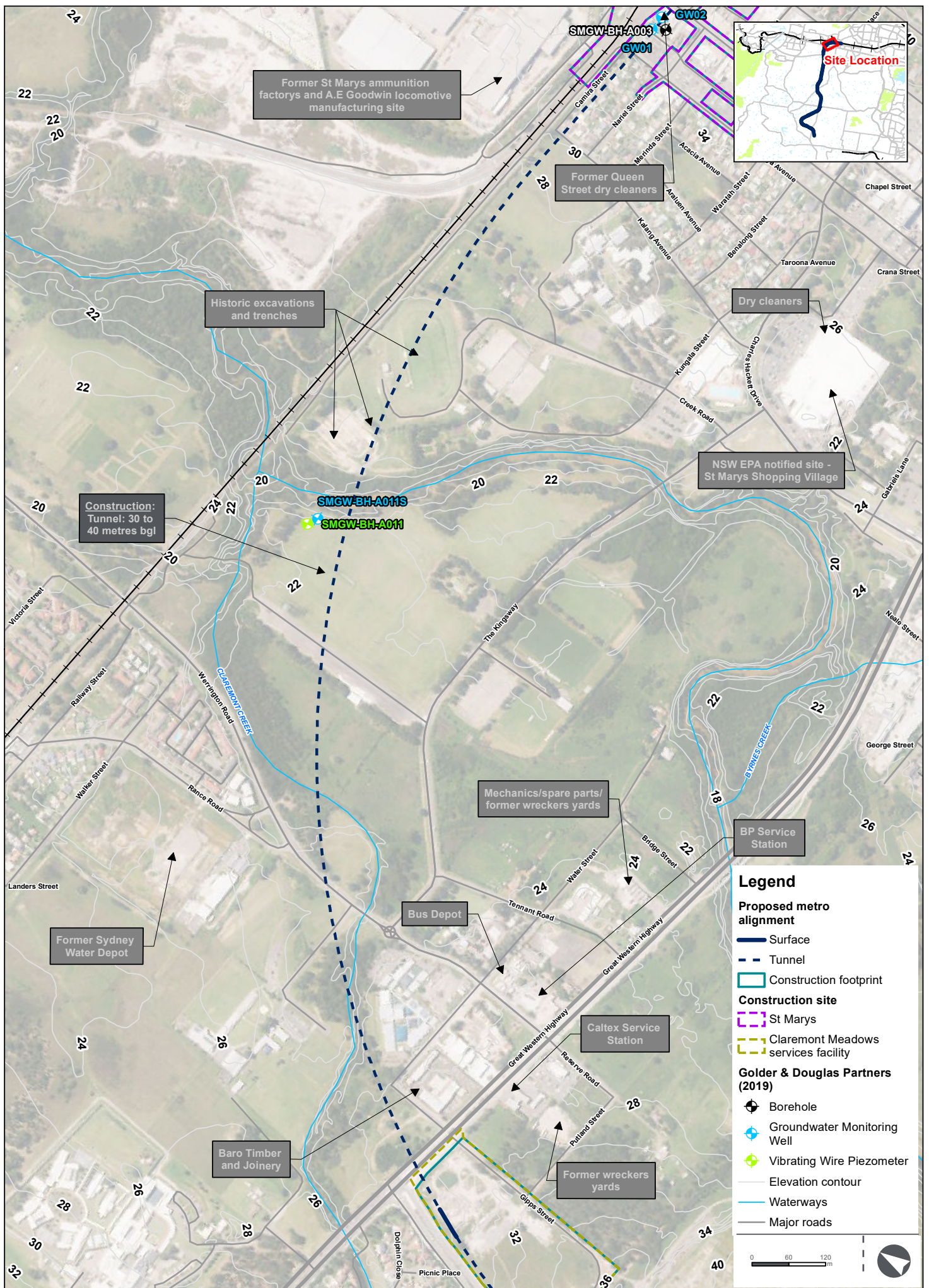
Figures



St Marys contamination sources and risk ranking

Figure A1

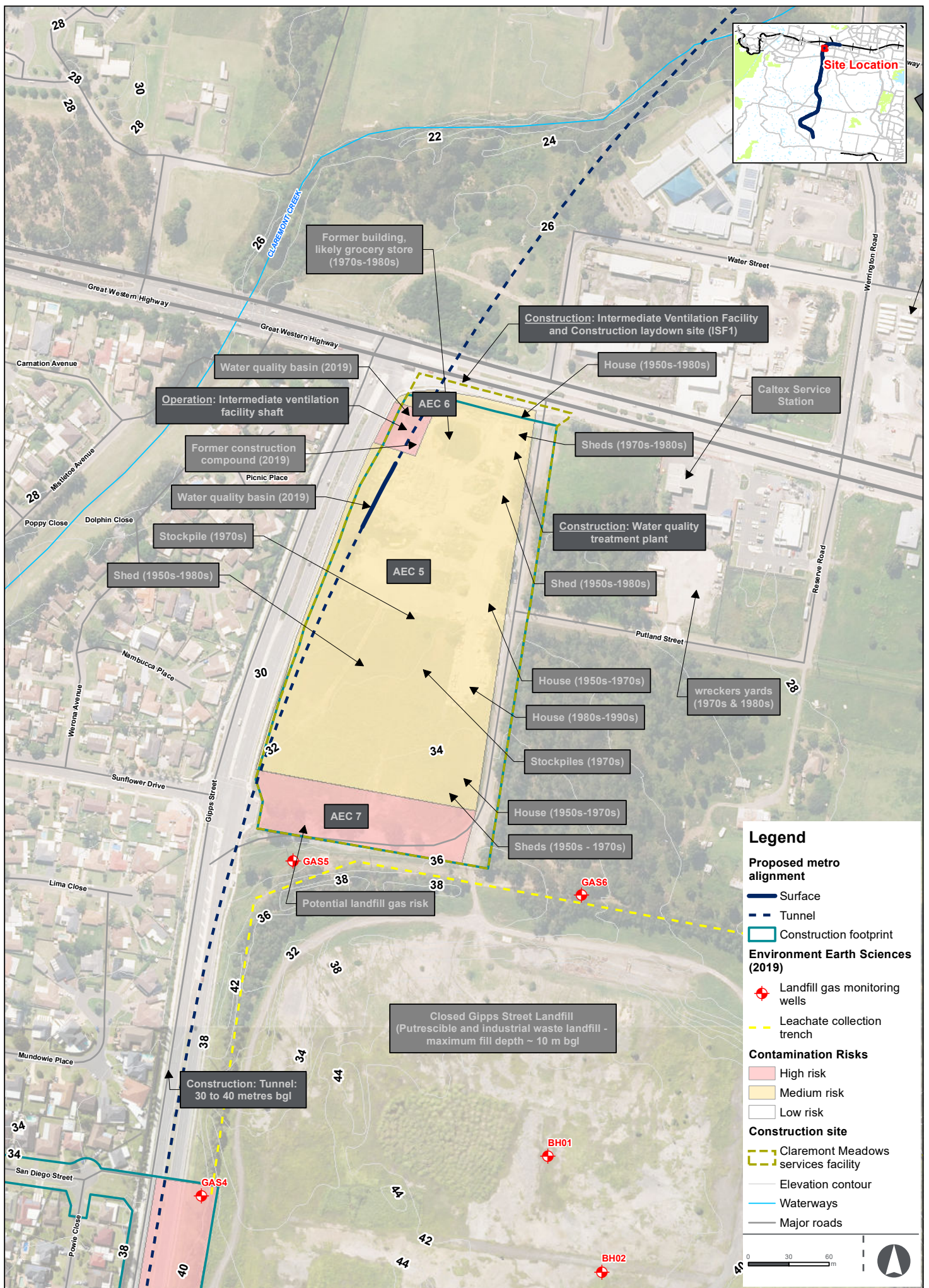
*HBM - Potential hazardous building materials
Indicative only, subject to design development



Off-airport project alignment potential contamination sources at St Marys to Claremont Meadows

*HBM - Potential hazardous building materials
Indicative only, subject to design development

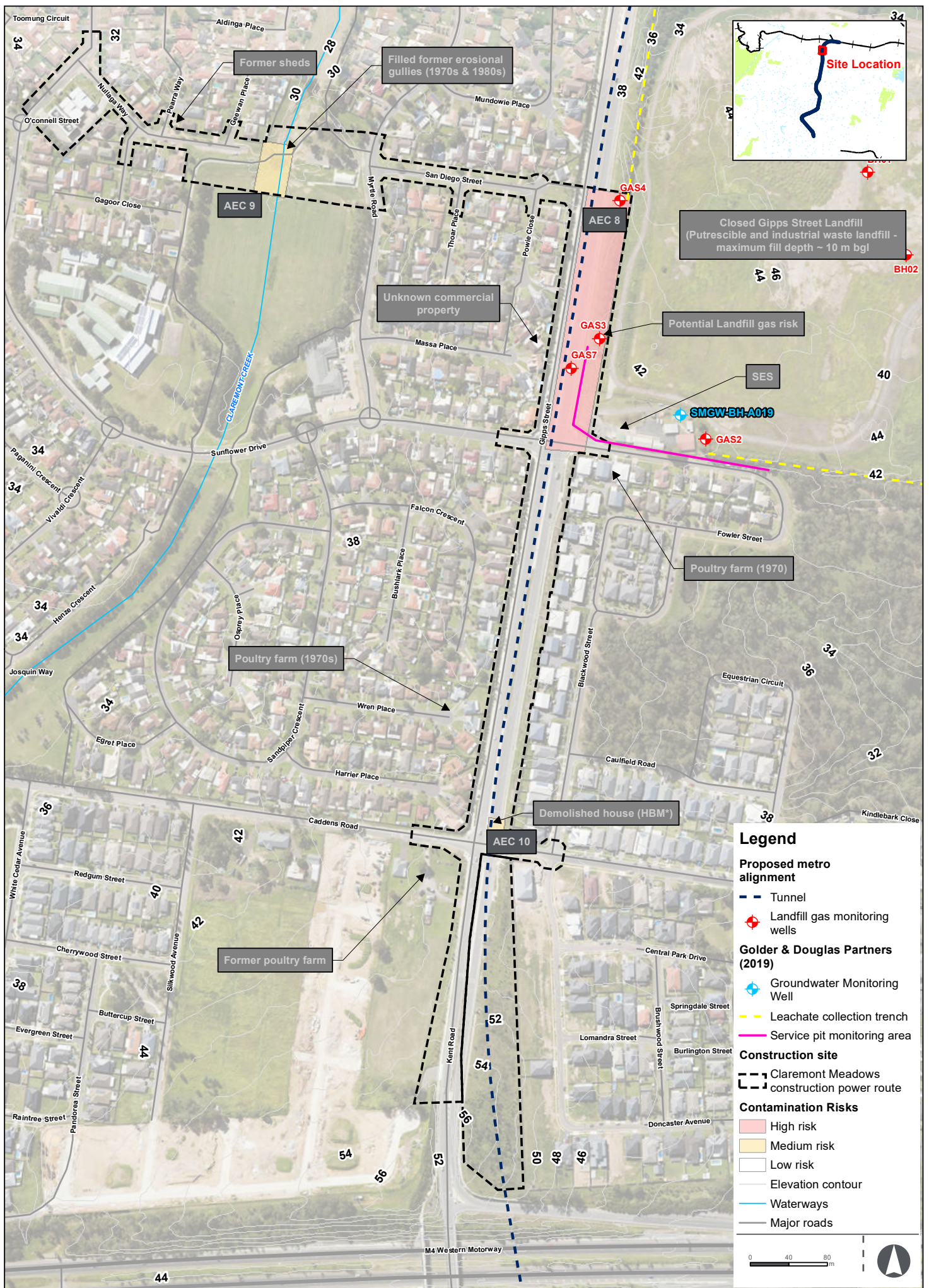
Figure A2



Claremont Meadows Services Facility contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

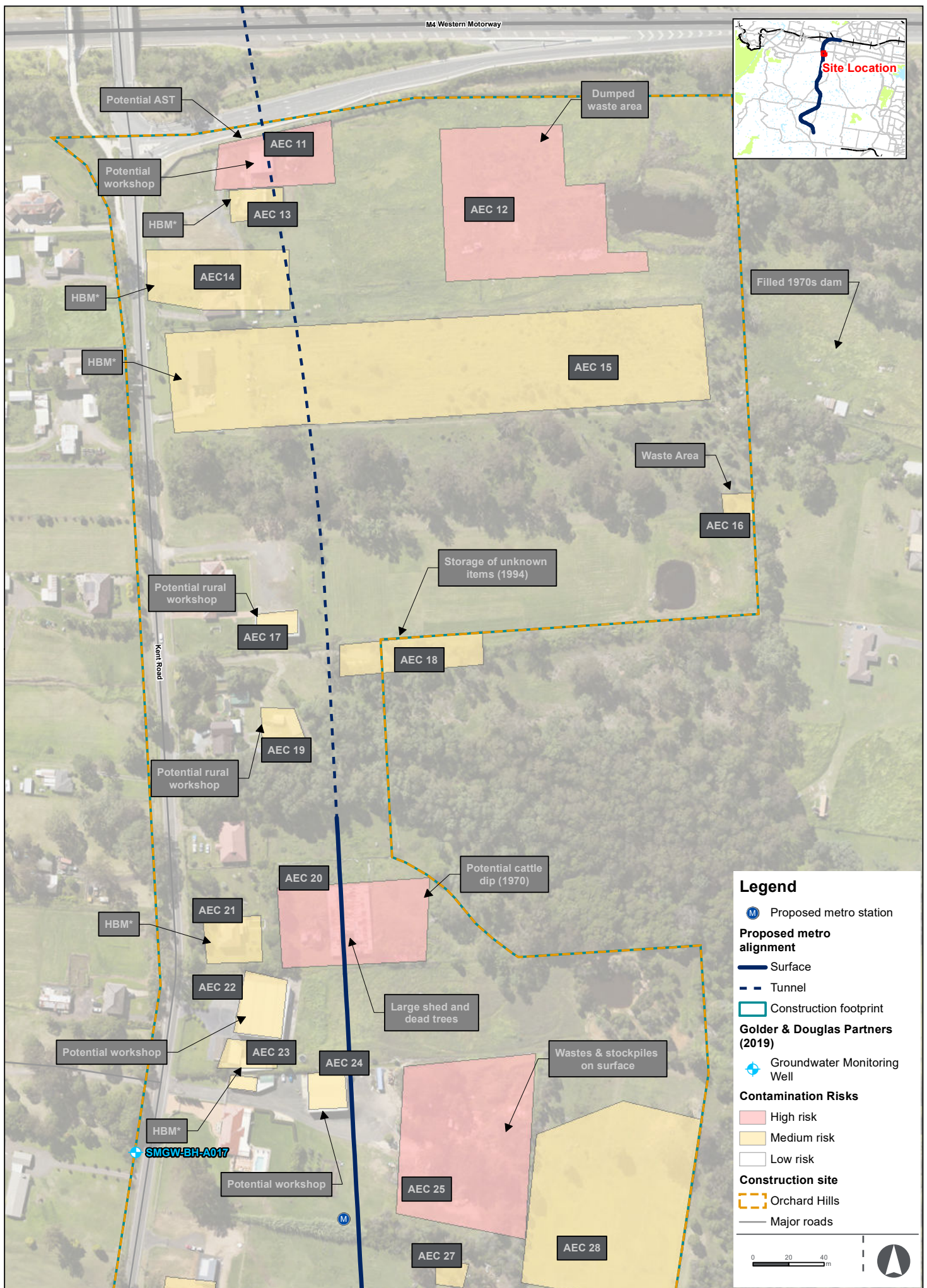
Figure A3



Claremont Meadows indicative construction power route contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

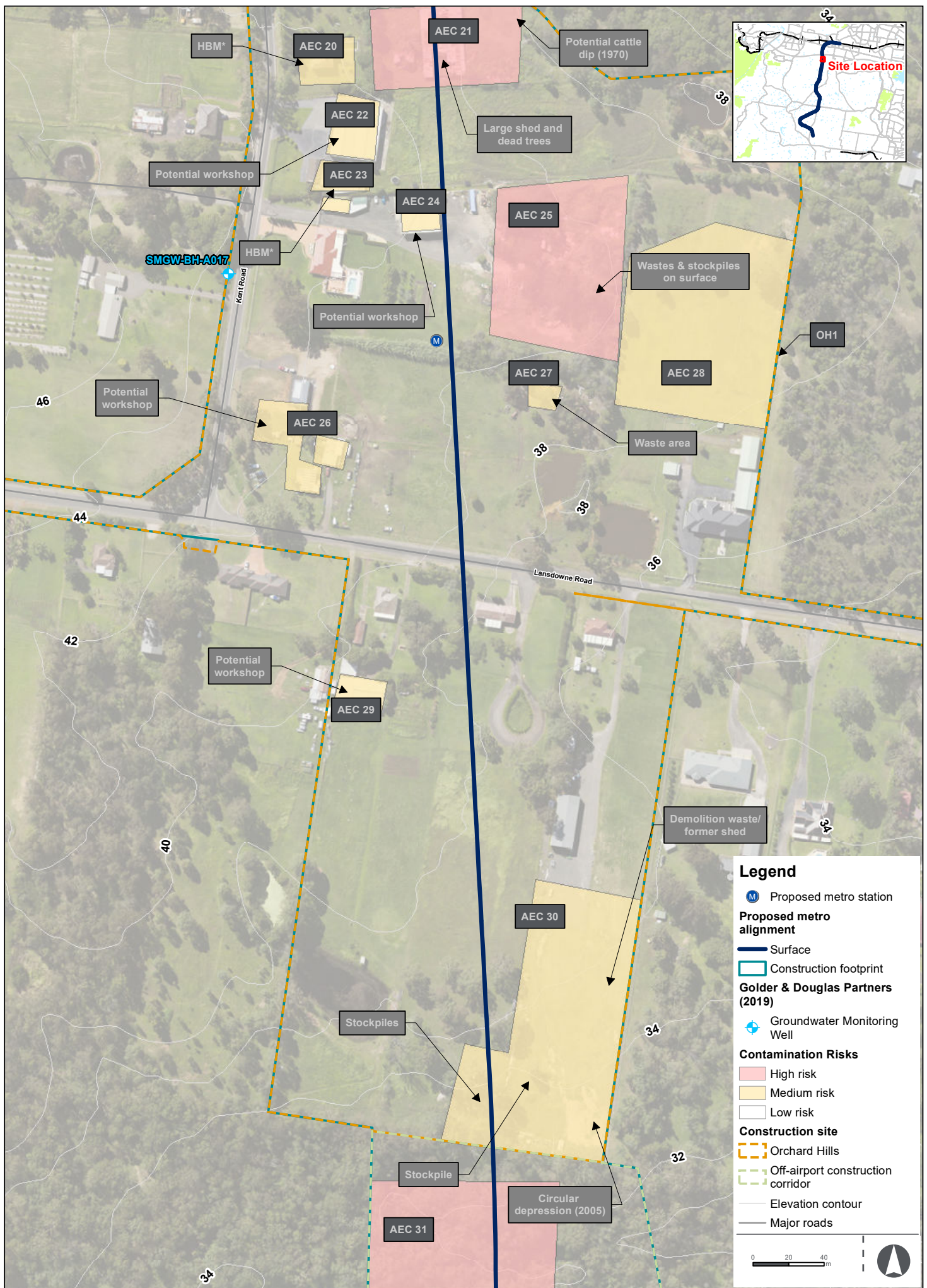
Figure A4



Orchard Hills construction footprint contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

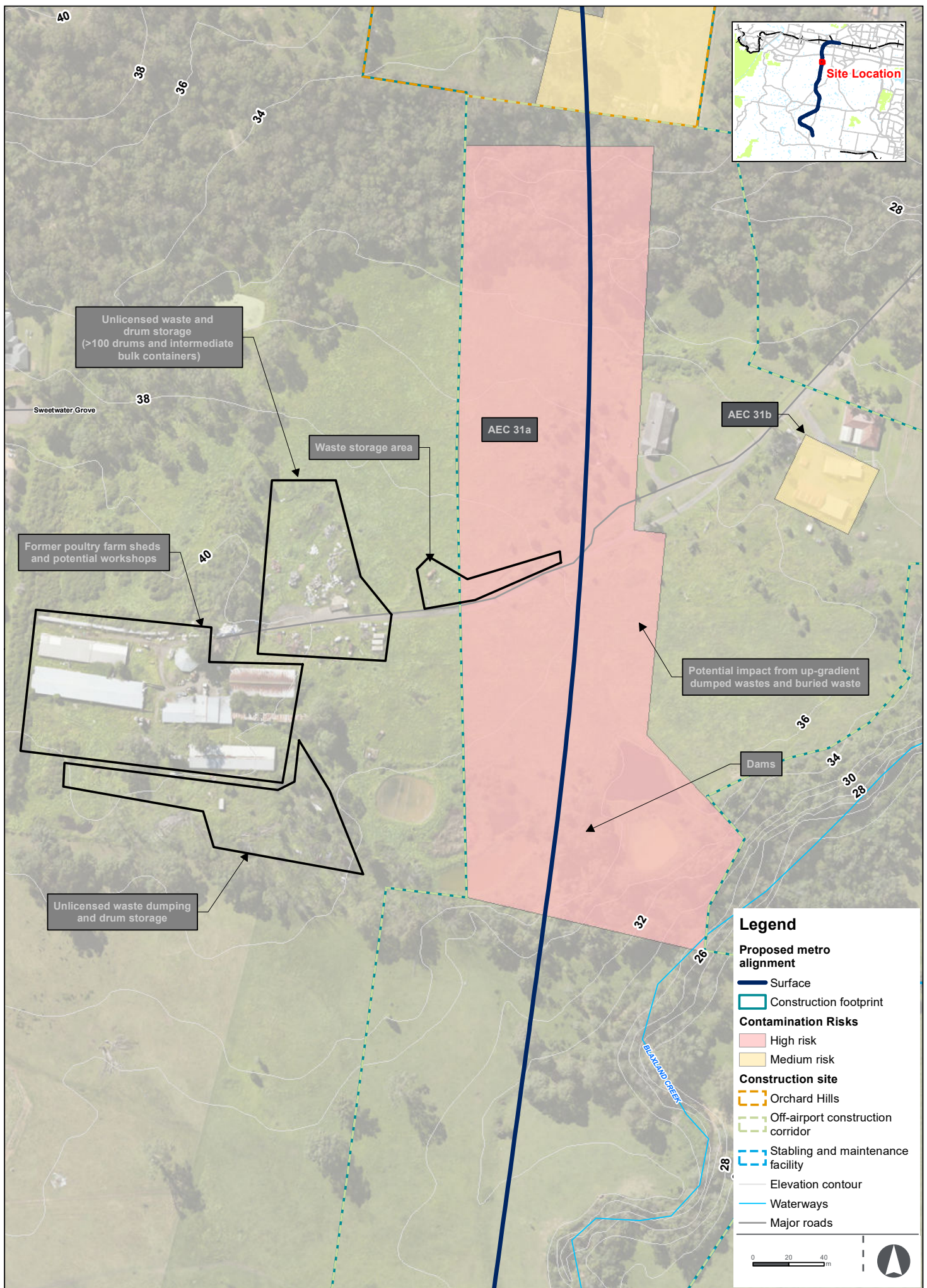
Figure A5



Orchard Hills construction footprint contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

Figure A6



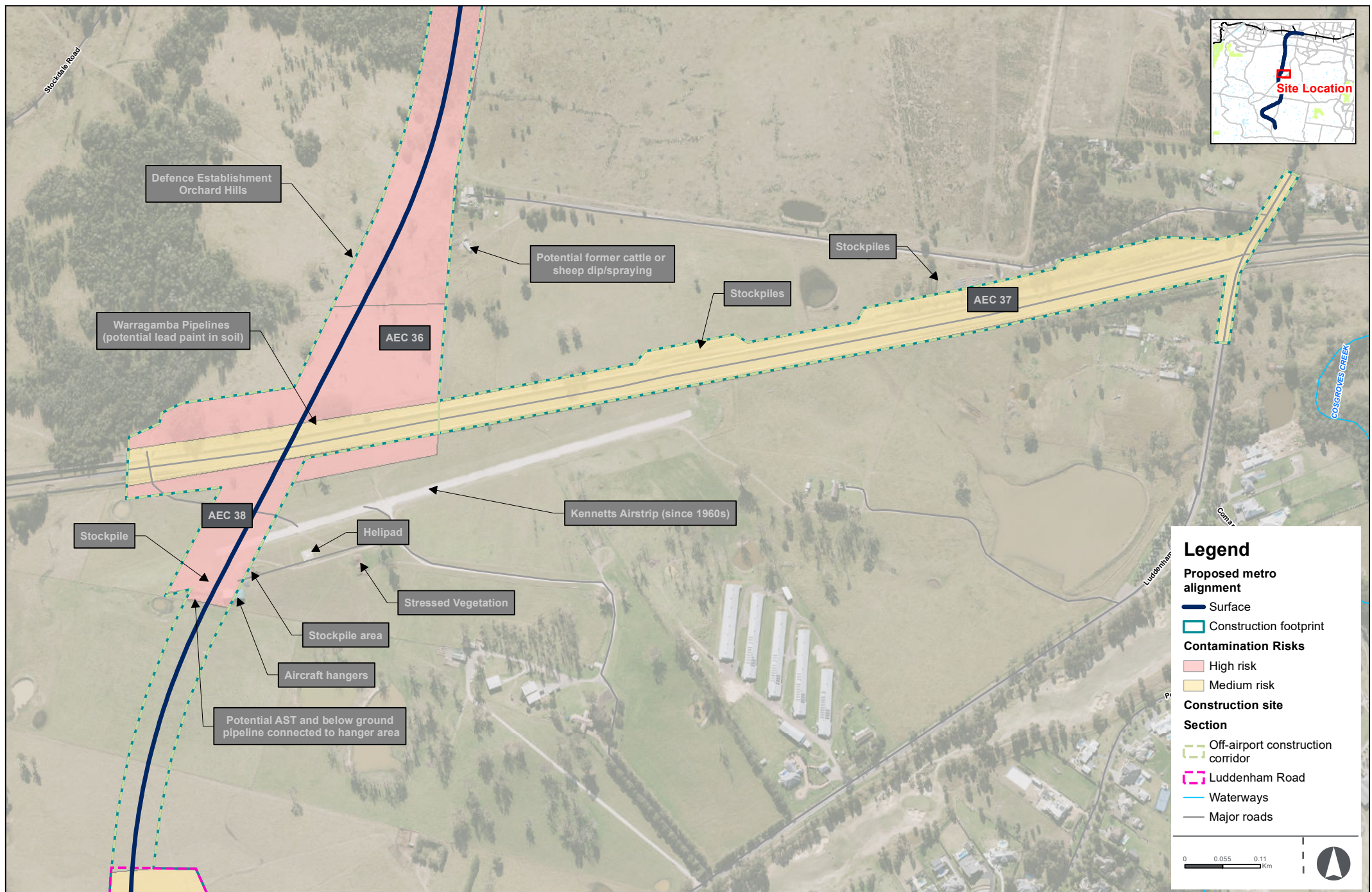
Orchard Hills off-airport construction corridor contamination sources and risk ranking

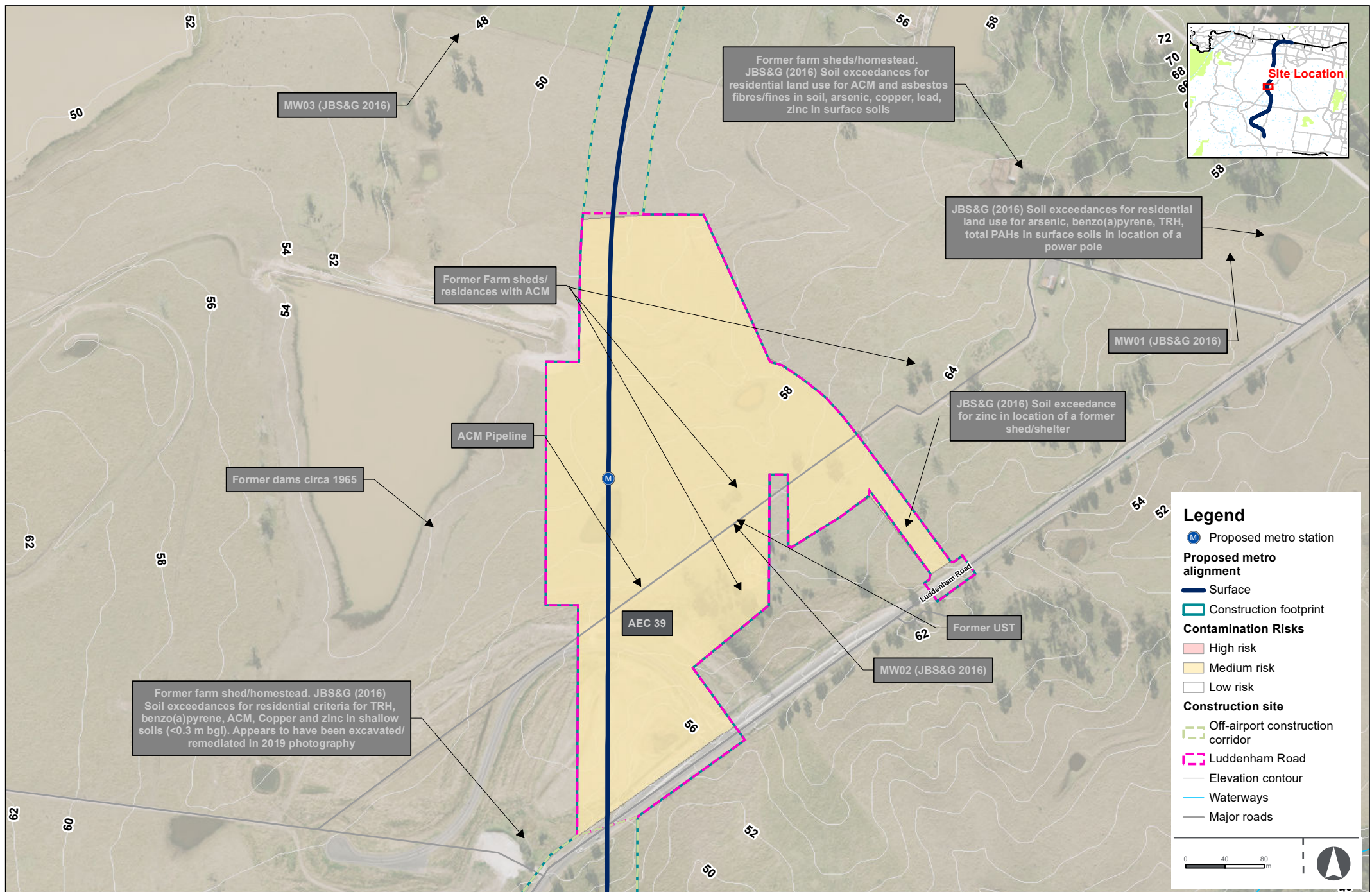
*HBM - Potential hazardous building materials
Indicative only, subject to design development

Figure A7

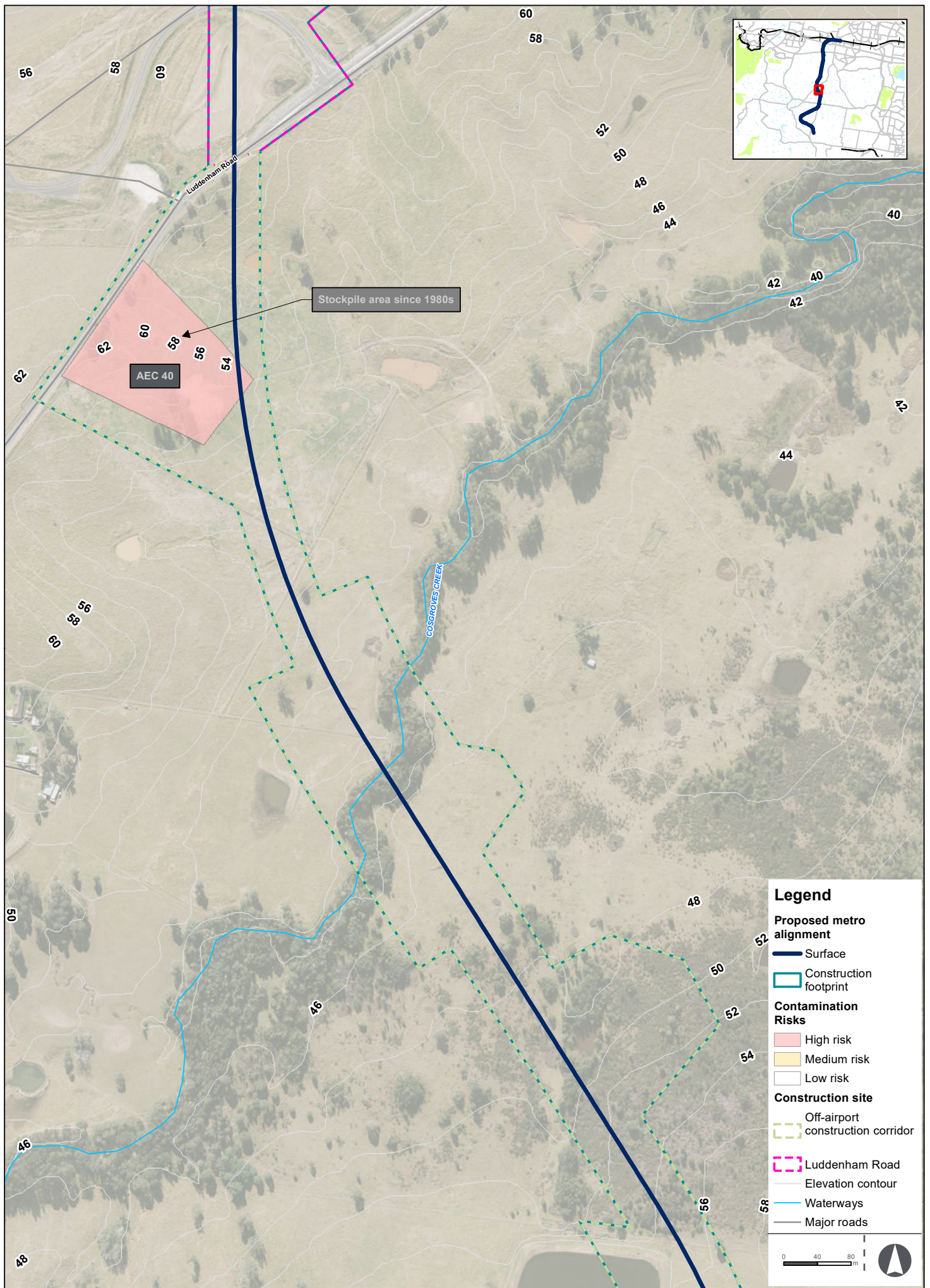


**HBM - Potential hazardous building materials
Indicative only, subject to design development*

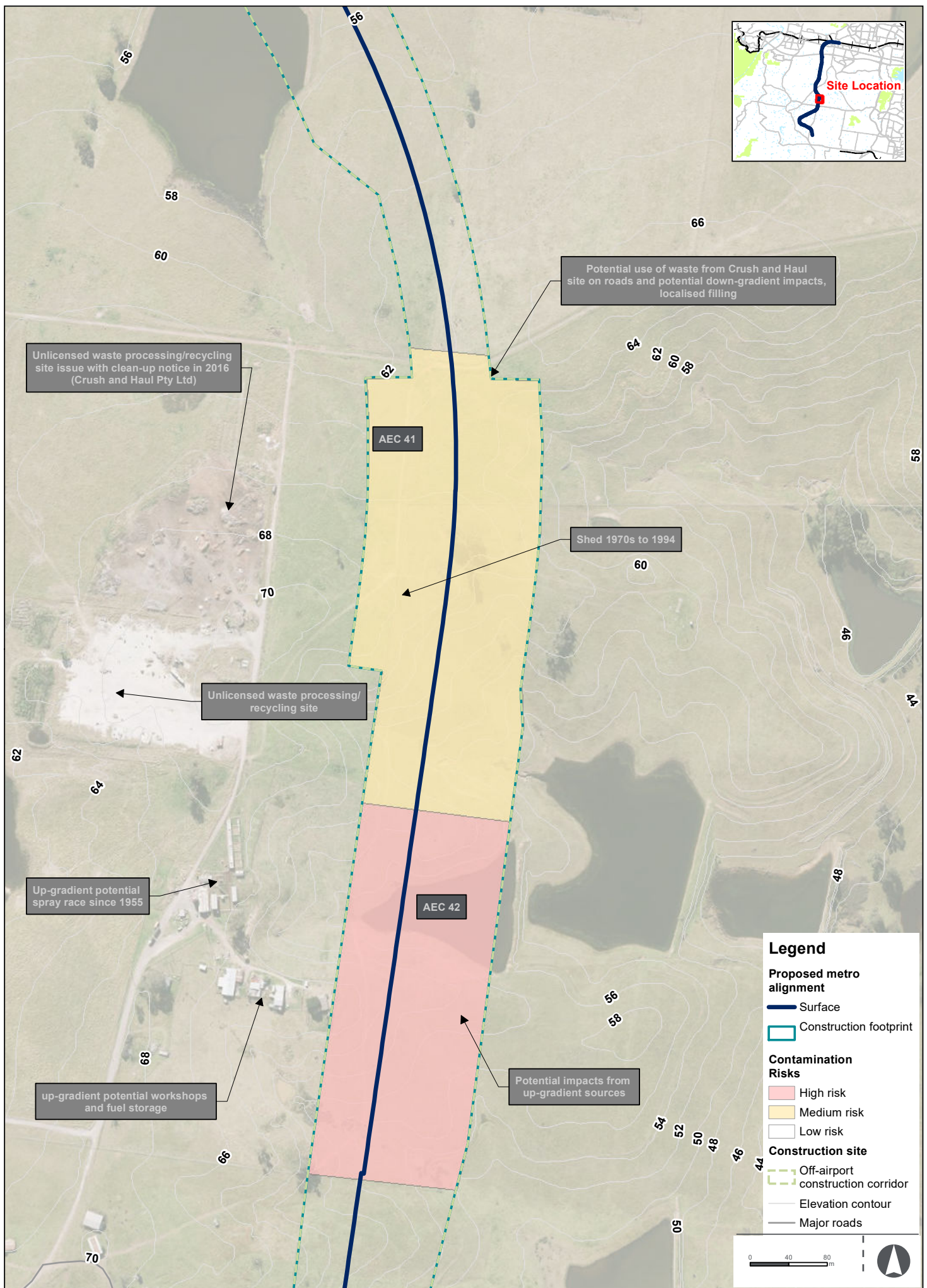




Luddenham Road construction site and off-airport construction corridor contamination sources and risk ranking



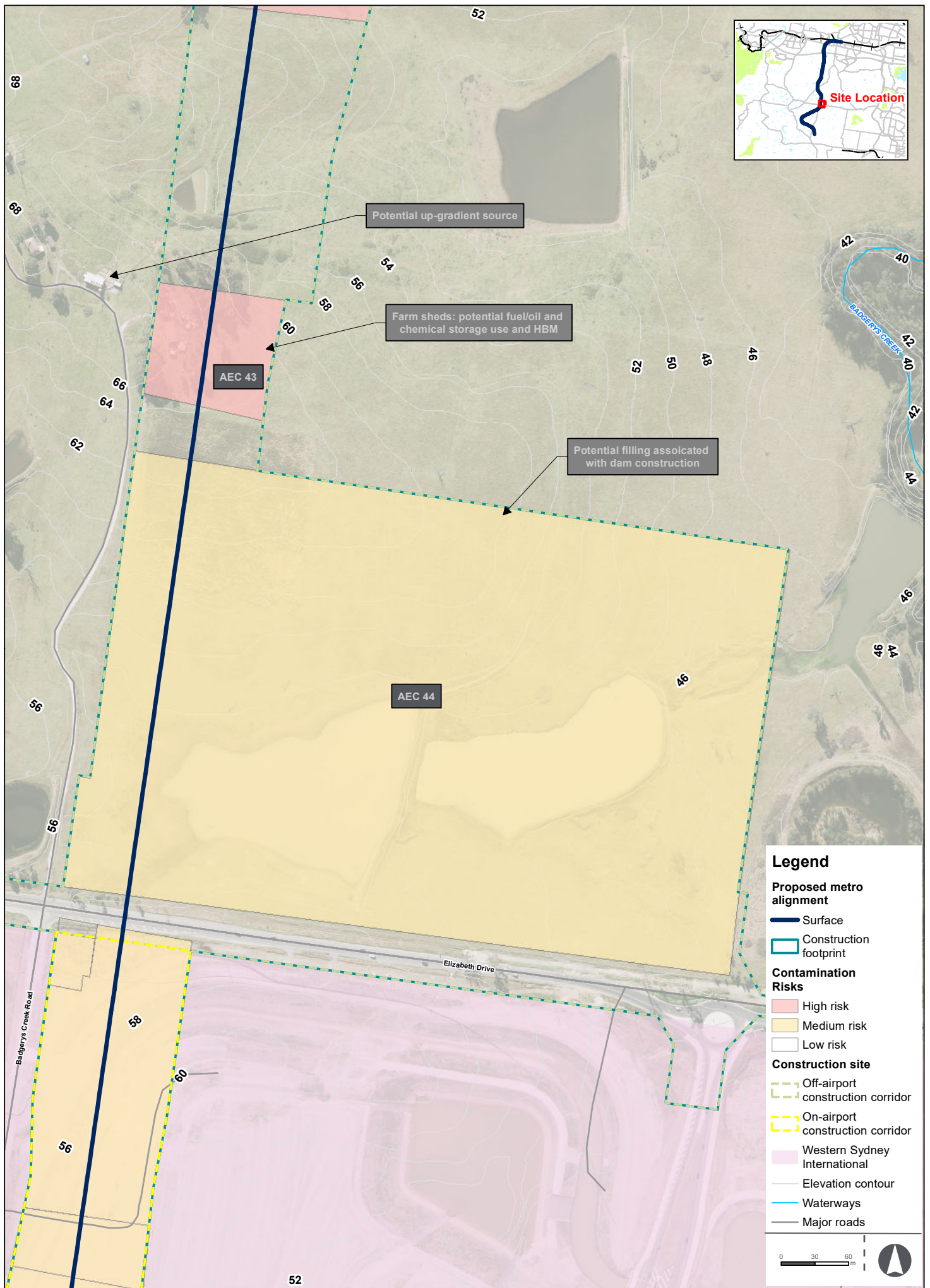
Luddenham construction site and off-airport construction corridor contamination sources and risk ranking
**HBM - Potential hazardous building materials
 Indicative only, subject to design development*



Off-airport construction corridor in Badgerys Creek contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

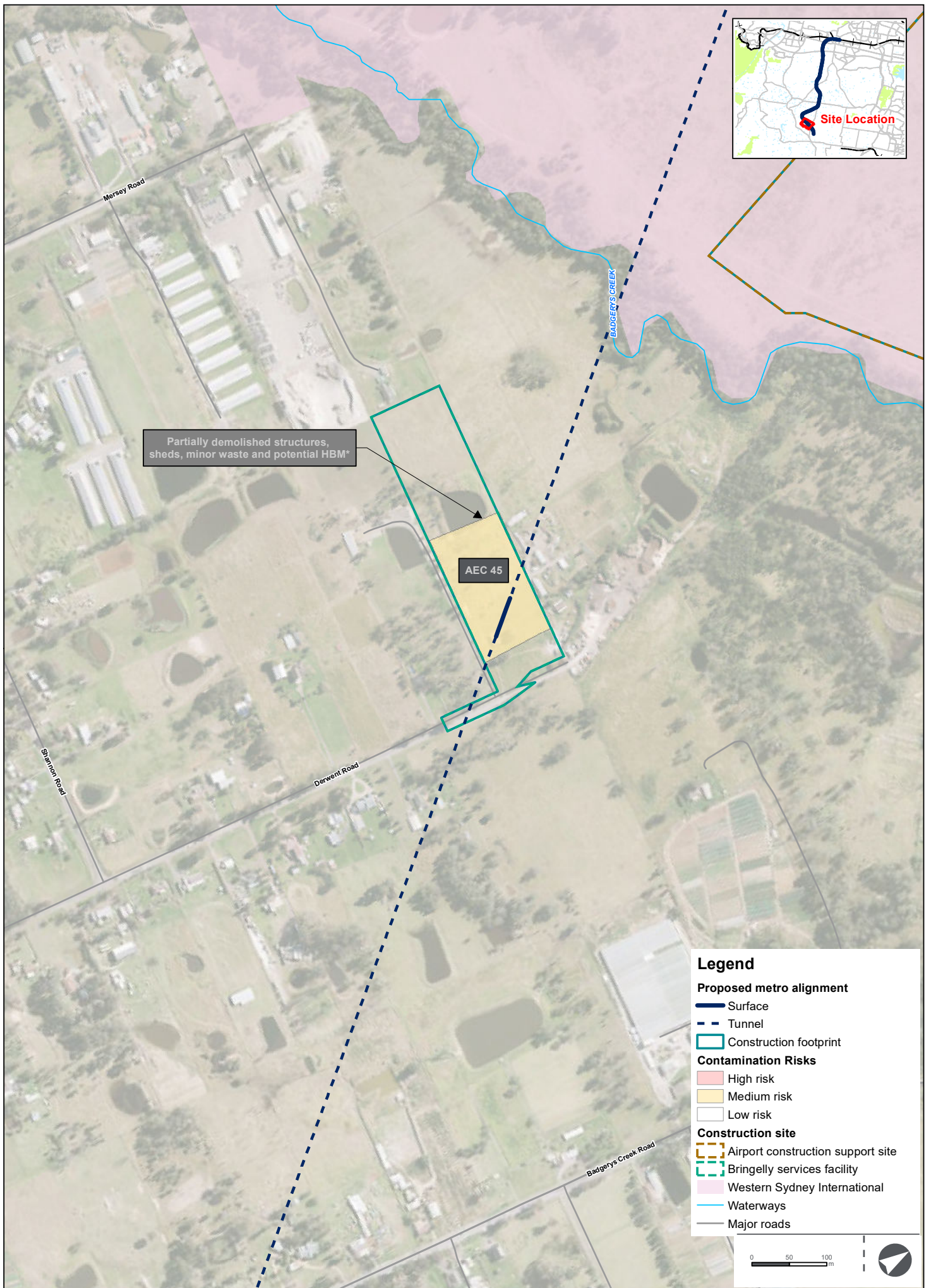
Figure A12



Off-airport construction corridor in Badgerys Creek contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

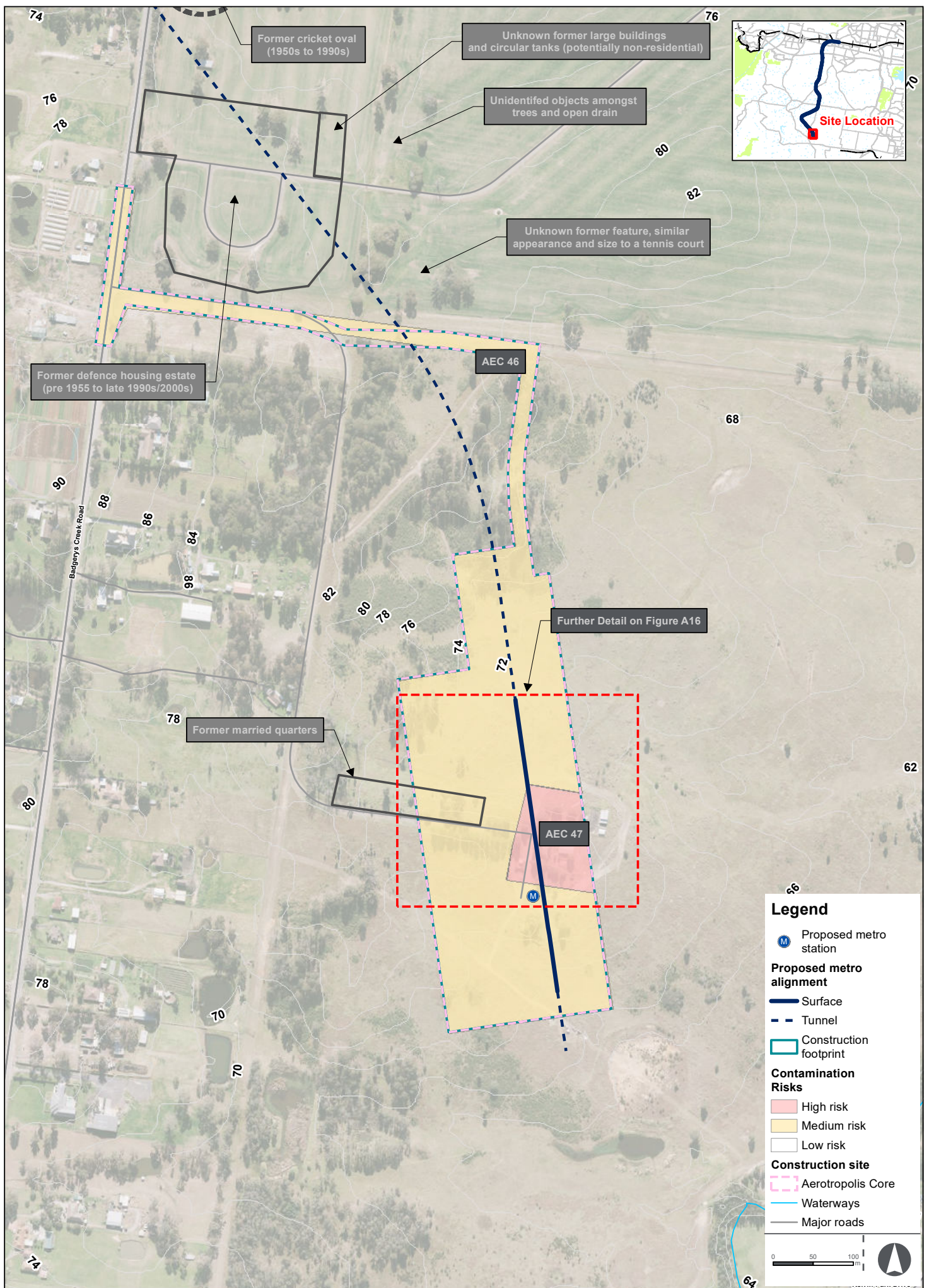
Figure A13



Bringelly services facility and off-airport alignment contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

Figure A14

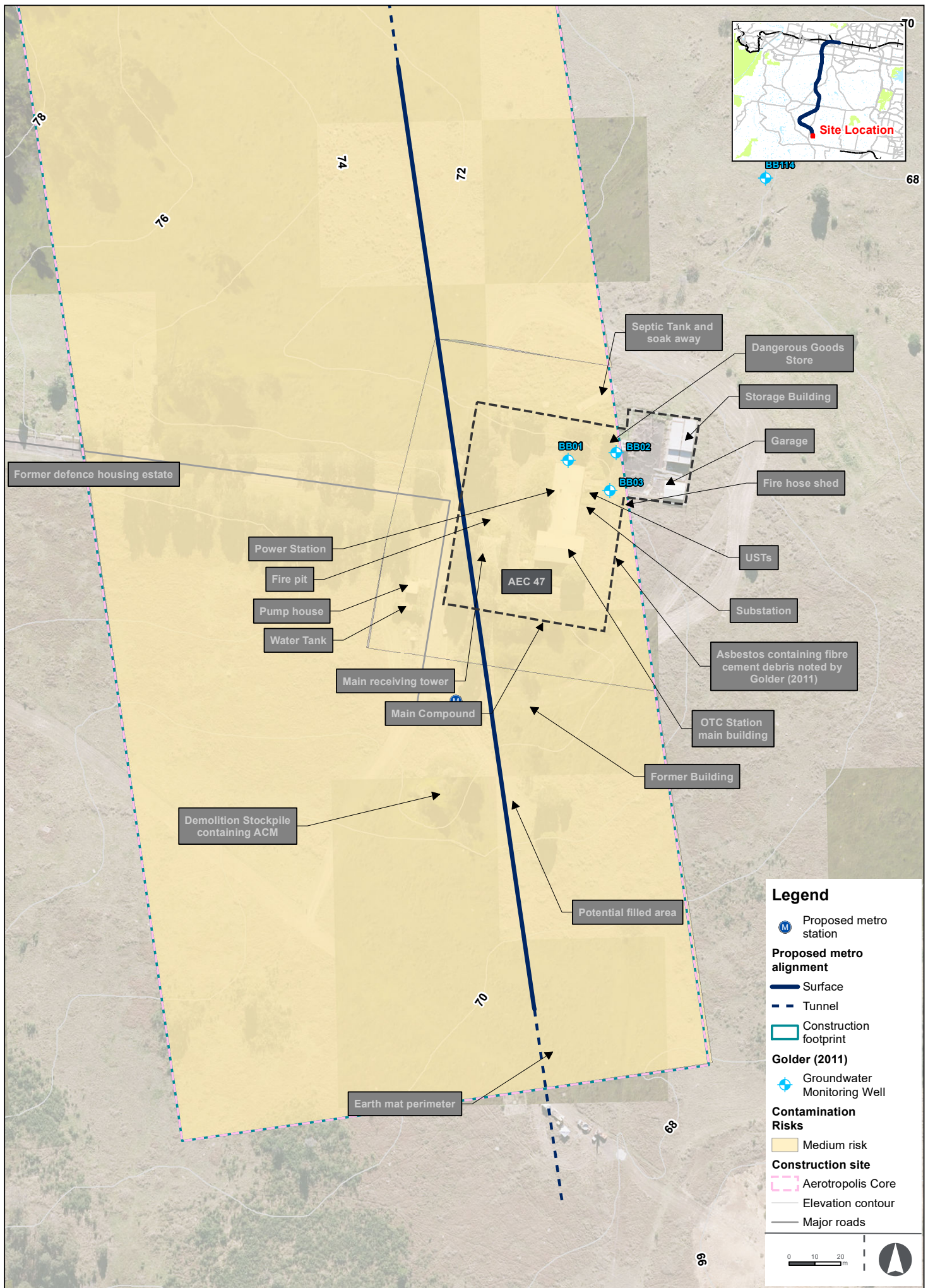


Aerotropolis Core construction site and driven tunnel alignment contamination sources and risk ranking

*HBM - Potential hazardous building materials

Indicative only, subject to design development

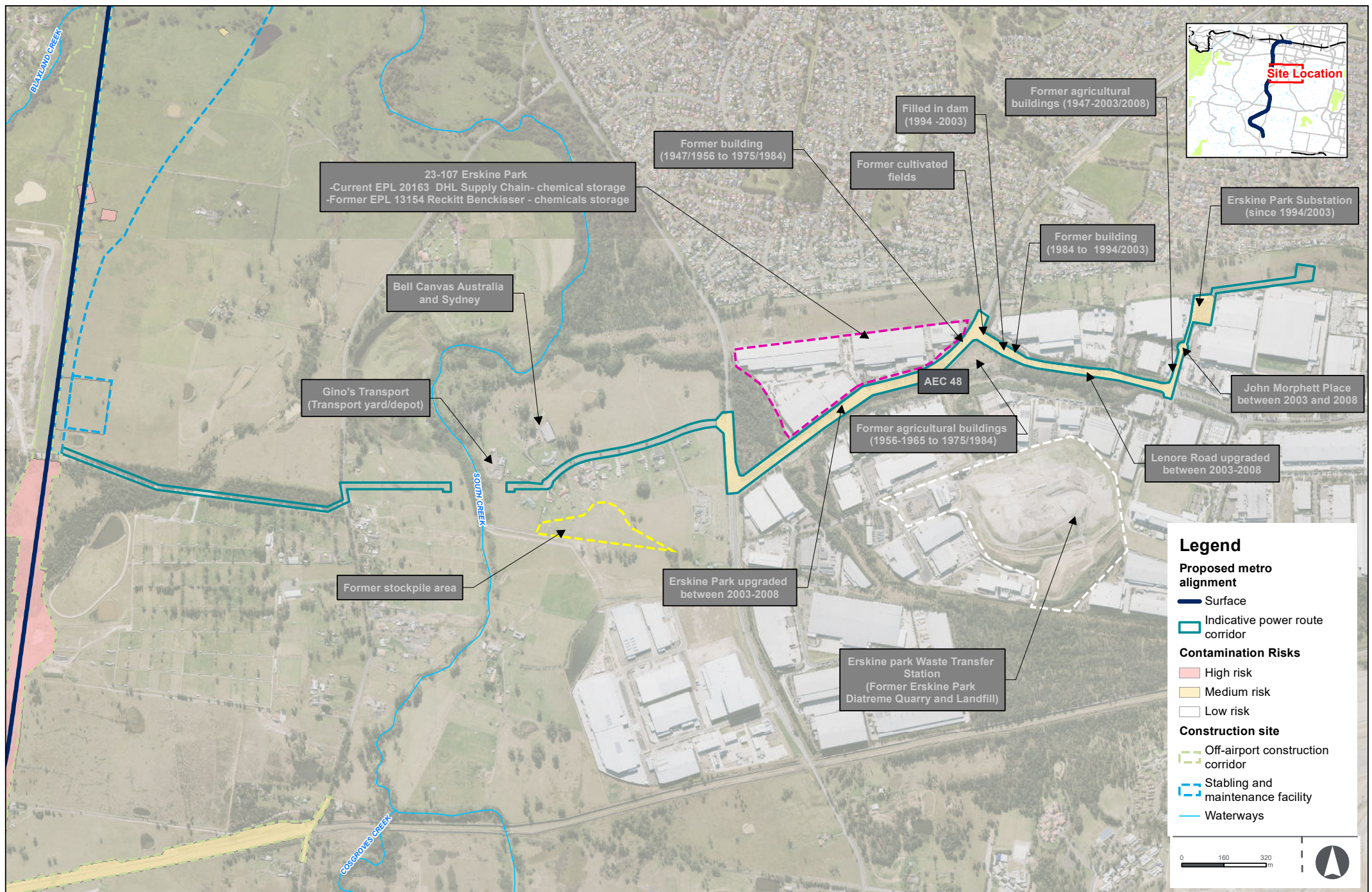
Figure A15

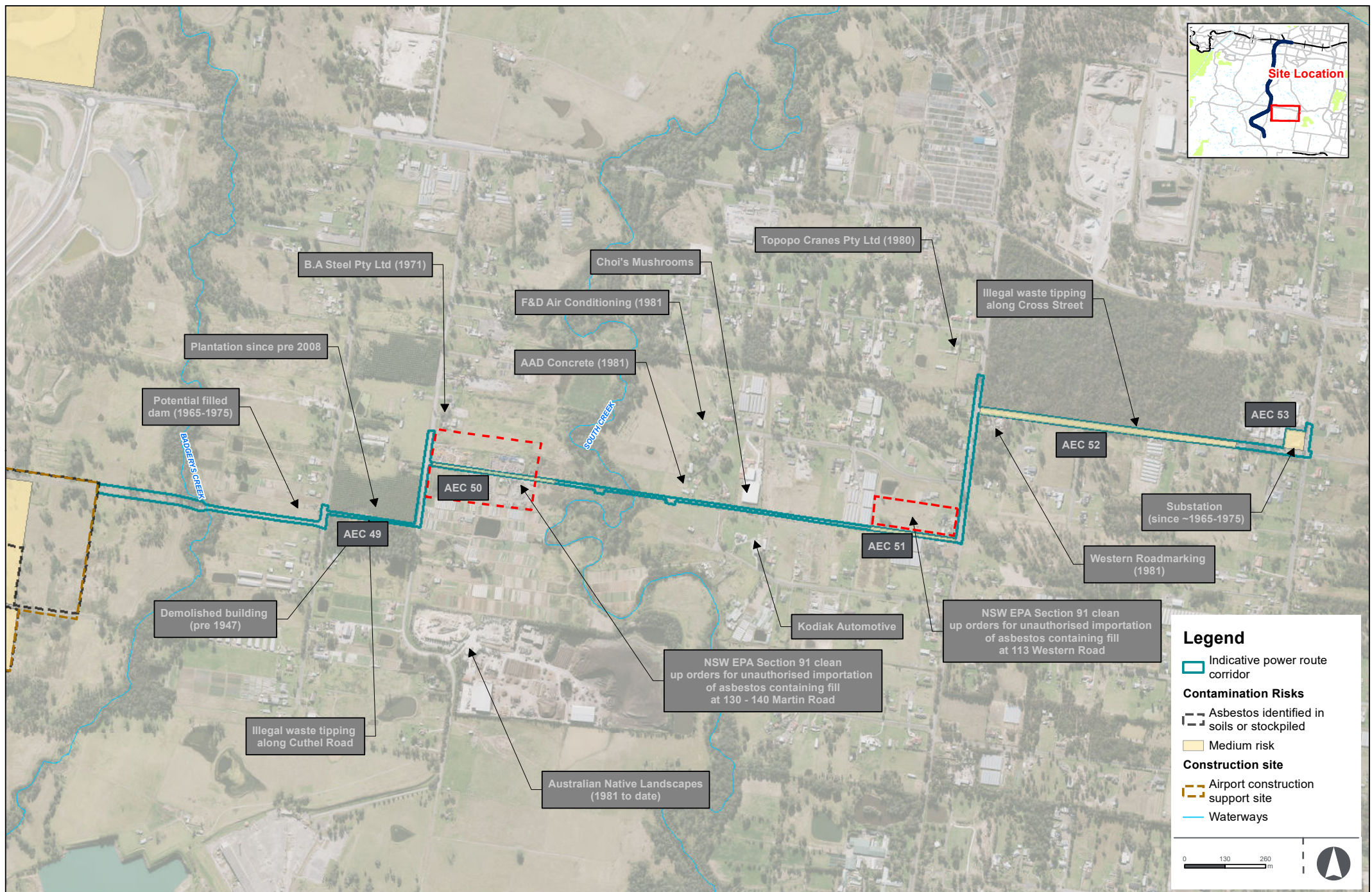


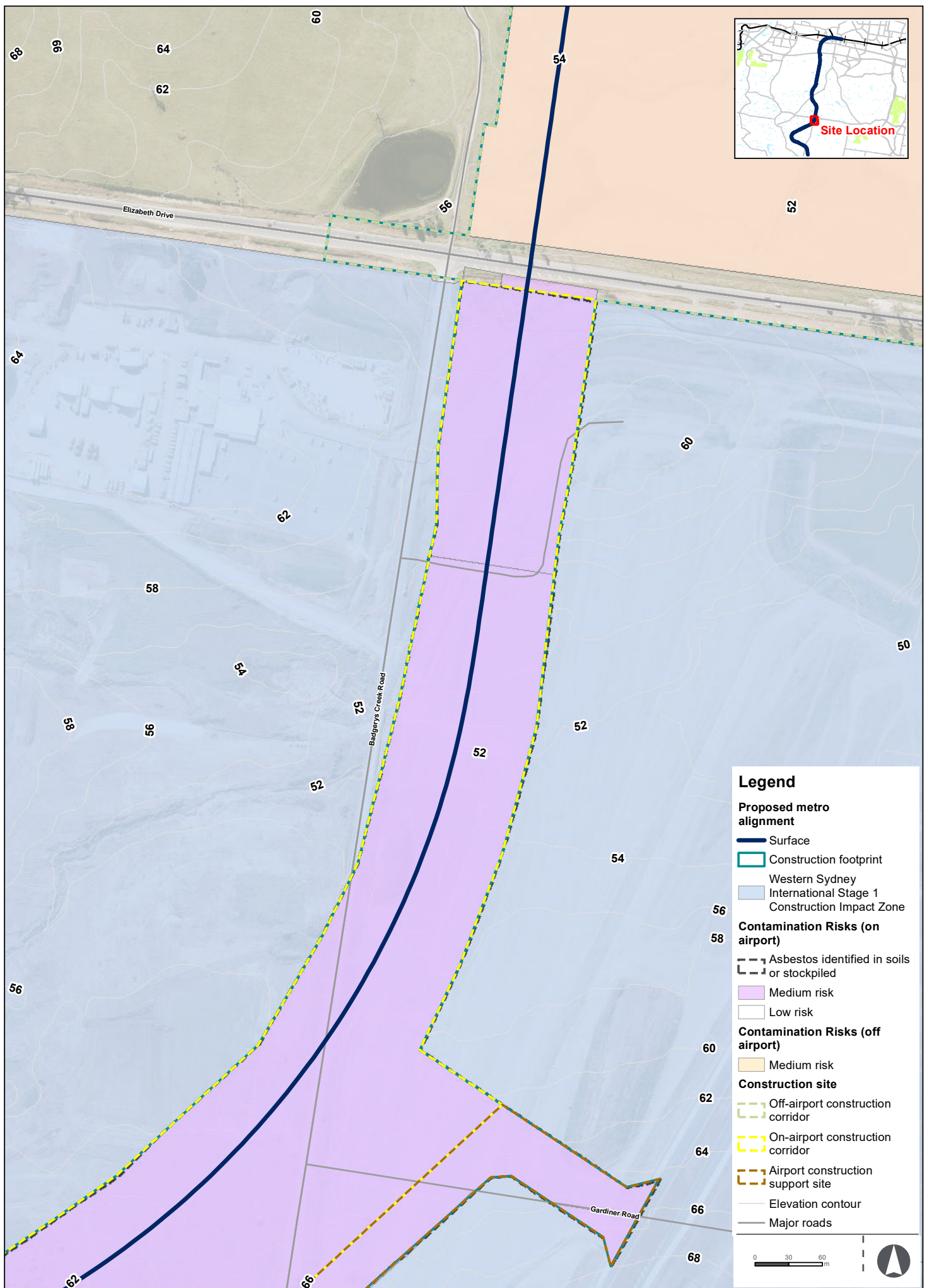
Aerotropolis Core construction site contamination sources and risk ranking

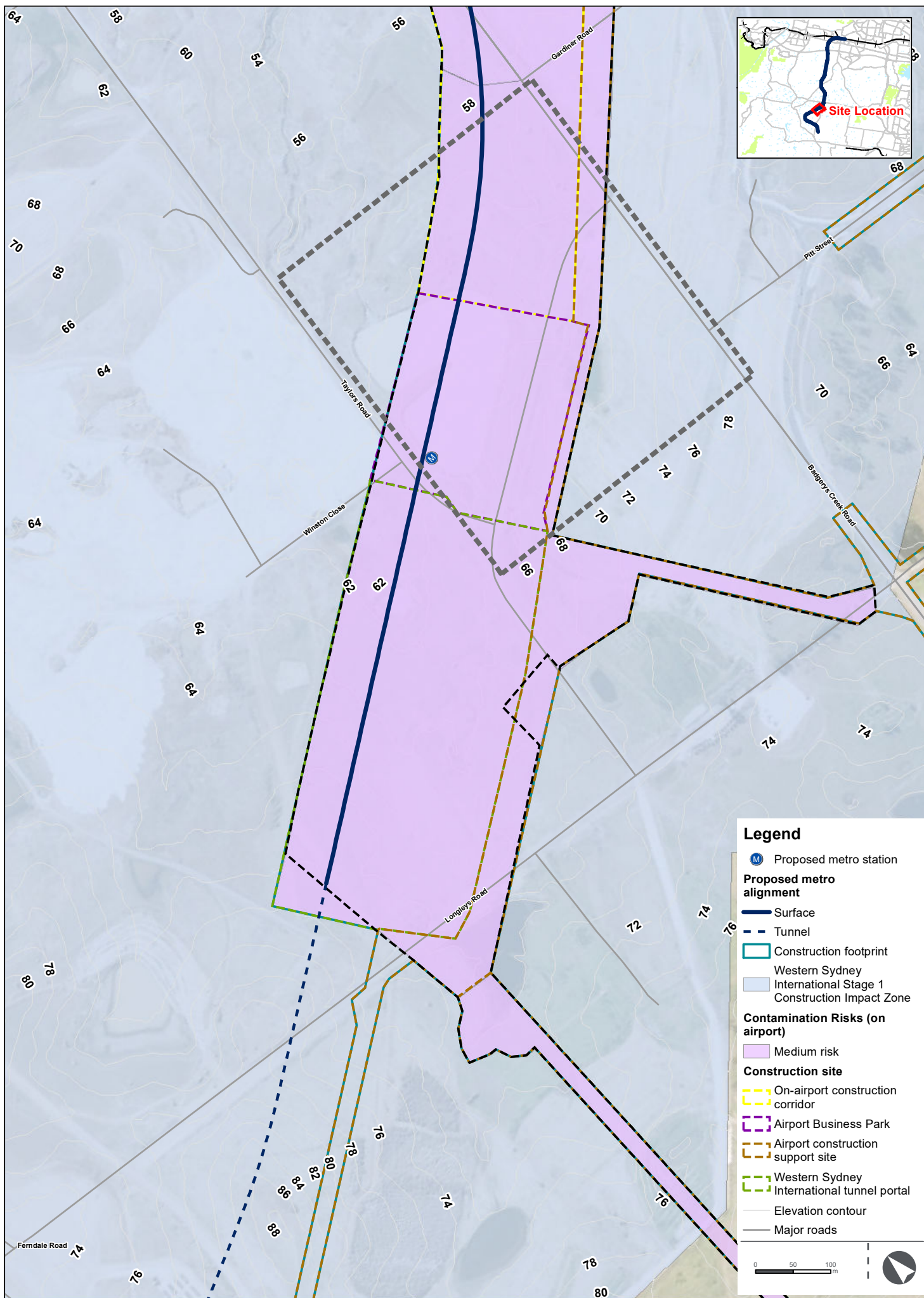
*HBM - Potential hazardous building materials
Indicative only, subject to design development

Figure A16





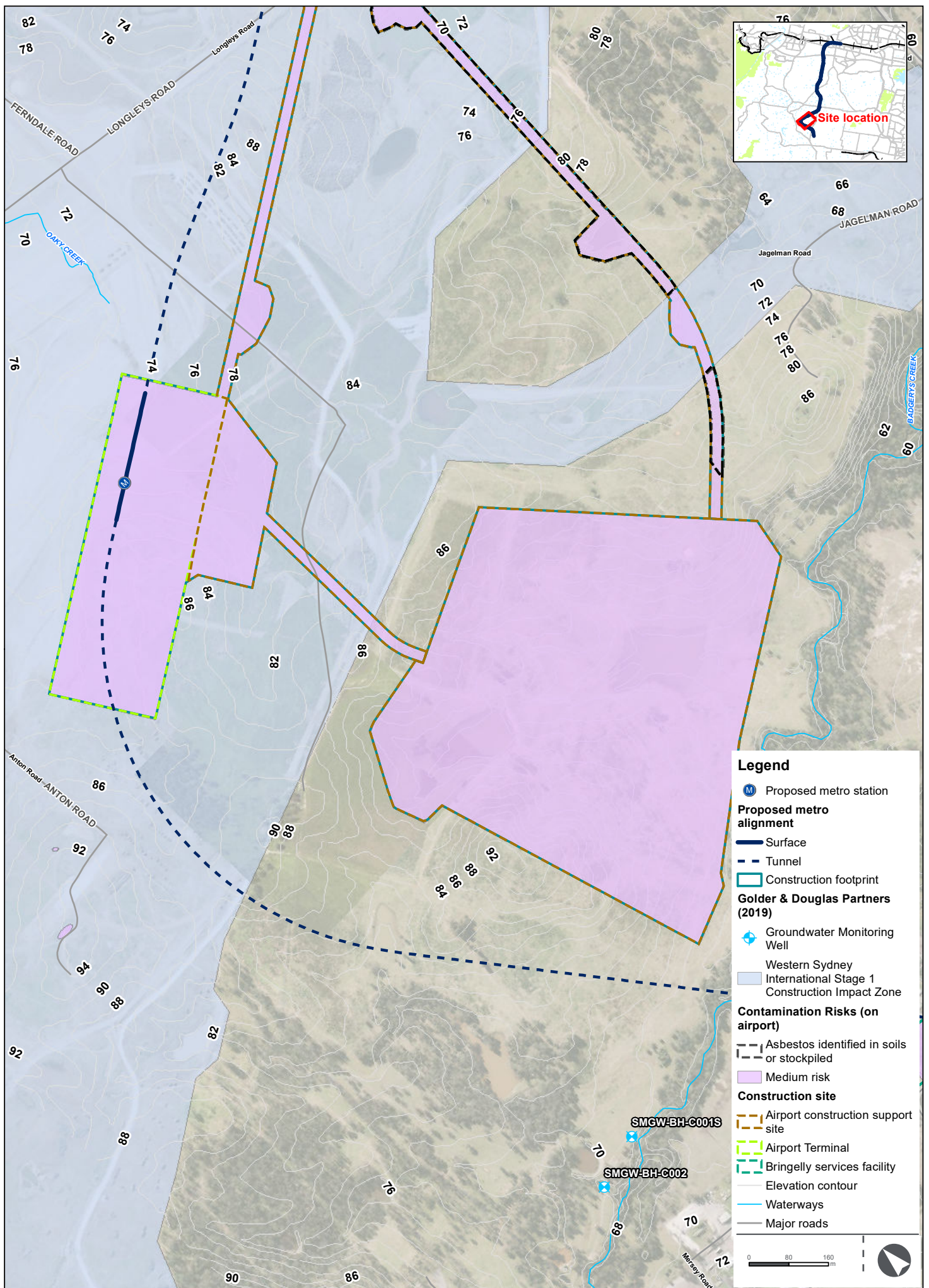




On-airport potential contamination sources and risk ranking

Figure A20

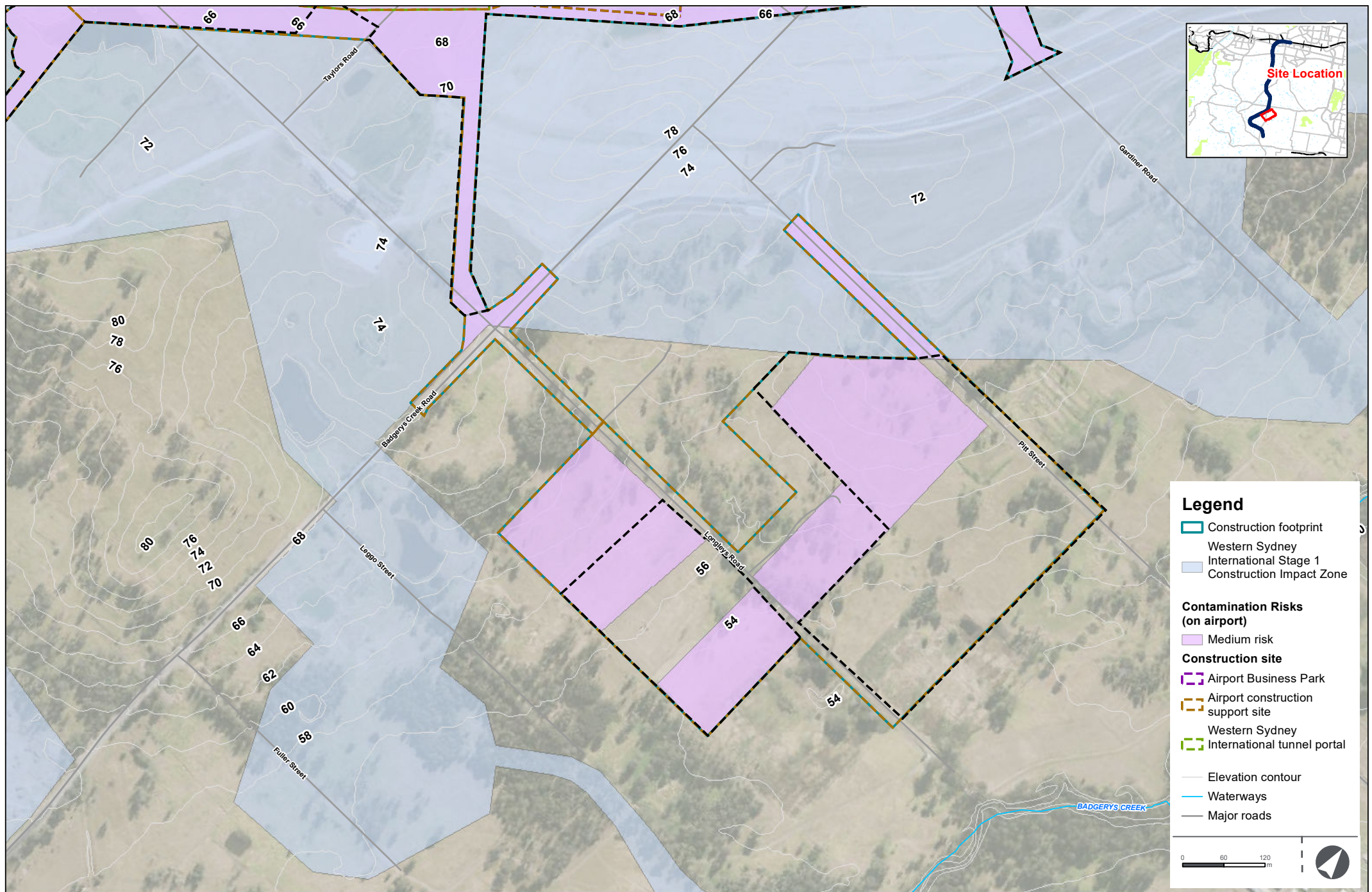
*HBM - Potential hazardous building materials
Indicative only, subject to design development



On-airport potential contamination sources and risk ranking

*HBM - Potential hazardous building materials
Indicative only, subject to design development

Figure A21



Viaduct precast facility, stockpile areas and access roads contamination sources and risk ranking

Figure A22

Appendix A Figures

Appendix B

Legislation and policy
context

Appendix B Legislation and policy context

1 Off-airport legislation and policy context

1.1 Commonwealth policy

1.1.1 National Environment Protection (Assessment of Contamination) Measure 1999 as amended in 2013 (ASC NEPM)

National Environment Protection Measures (NEPMs) are developed by the National Environmental Protection Council (NEPC) to protect or manage particular factors of the environment. The National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended 2013 (the ASC NEPM) is made under the *National Environment Protection Council Act 1994* (Cth).

The ASC NEPM establishes a nationally consistent approach to the assessment of site contamination to ensure sound environmental management practices. The National Environment Protection Measures (Implementation) Act 1998 (the Implementation Act) gives the Australian Government the power to implement NEPMs on its own land and for its own activities.

1.2 State legislation and policy

1.2.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) and the EP&A Regulation are the primary pieces of legislation regulating land use planning and development assessment in NSW. This legislation is supported by a range of environmental planning instruments including State environmental planning policies (SEPPs) and LEPs

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) provides a State-wide approach to the remediation of contaminated land for the purpose of minimising the risk of harm to the health of humans and the environment. In accordance with Clause 7(1) of SEPP 55, a consent authority must not consent to the carrying out of development on any land unless:

- it has considered whether the land is contaminated
- if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or would be suitable, after remediation) for the purpose for which the development is proposed to be carried out
- if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land would be remediated before the land is used for that purpose.

1.2.2 Contaminated Land Management Act 1997

The *Contaminated Land Management Act 1997* (CLM Act) provides for the management of contaminated land in NSW by the Environment Protection Authority (EPA). The objects of this Act are to establish a process for investigating and (where appropriate) remediating land areas where contamination presents a risk of harm to human health or some factor of the environment.

The EPA is the primary environmental regulator in NSW and has powers to respond to contamination if it is significant enough to warrant regulation. The EPA can make or approve guidelines under section 105 of the *CLM Act*.

1.2.3 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) is administered by the NSW EPA. It prohibits any person from causing pollution of land, waters, or air and provides penalties for air, water and noise pollution offences. The Act enables the NSW Government to set out explicit protection of the environment policies (PEPs) and adopt more innovative approaches to reducing pollution.

The disposal of waste is also regulated under the POEO Act. *The POEO (Waste) Regulation 2014* requires that all excavated material that is defined as waste must be classified prior to disposal to a landfill or waste treatment facility with the required Environmental Protection Licence (EPL) to accept the waste type. Under Section 91 and 92 of the *POEO (Waste) Regulation 2014* there are resource recovery orders (RRO) and resource recovery exemptions (RRE) that provide provisions for excavated material that do not meet the requirements of virgin excavated natural materials (VENM) to be re-used.

An application can be made to the NSW EPA to apply for a RRO and RRE if there is no current order and exemption for the planned re-use of waste. The applications for an RRO and RRE for re-use of material as fill must address the requirements of the NSW EPA (2018) *Guidelines on resource recovery orders and exemptions for the land application of waste materials as fill*.

1.3 Local legislation and policy

As the project is State Significant Infrastructure, local environment plans (LEP) and development control plans (DCP) are not applicable to the project. Relevant planning controls are however considered for consistency, and local government is involved through stakeholder consultation.

Penrith City Council has adopted a precautionary approach in its consideration of development applications in regard to contaminated land under the Penrith DCP 2014. Council considers if previous land uses could have caused land contamination and requires either preliminary or detailed investigations as part of a development consent. Relevant guidelines include Department of Urban Affairs and Planning (DUAP) & NSW EPA (1998) *Managing Land Contamination –Planning Guidelines* or any guidelines in force under the CLM Act 1997.

Liverpool City Council policy on contaminated land is under the *Liverpool DCP 2008*. Council considers if previous land uses could have caused land contamination and require either preliminary or detailed investigations are required as part of a development consent.

2 On-airport legislative and policy context

The *Airports Act 1996* (Cth) regulates certain Commonwealth owned airports, including the development of airport sites to the exclusion of state planning laws. The Airports Act contains a planning framework under which each airport is required to prepare a master plan for approval by the Commonwealth Infrastructure Minister. In addition, for major airport developments, a major development plan is required to be prepared and approved. For Western Sydney International, a transitional planning instrument called an Airport Plan has been developed to guide development on the site until a masterplan is put in place (Part 2) and also to authorise the first stage of airport development subject to conditions (Part 3).

The Airport Plan was determined by the Commonwealth Infrastructure Minister in December 2016 following preparation and finalisation of an Environmental Impact Statement, and incorporates the conditions specified by the Commonwealth Environment Minister. Those conditions include the requirement for preparation and approval of a Construction Plan and a number of Construction Environment Management Plans (CEMPs) prior to commencement of main construction works, which include soil and groundwater management and monitoring requirements. Initial versions of the CEMPs were prepared and approved and main construction work on the airport commenced in September 2018. The plans have subsequently been varied and the current versions are available on WSA's website.

Clause 34 in the Airport plan in regard to PFAS contamination, states that '*a person carrying out or operating an aspect of the Stage 1 Development must not act inconsistently with:*

- a. *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended);*
- b. *Australian and New Zealand Guidelines for Fresh and Marine Water Quality (under the National Water Quality Management Strategy) including the draft default guideline values for perfluorooctanoic acid (PFOS) and perfluorooctane sulfonic acid (PFOA) in freshwater as applied by the state government; and*
- c. *relevant Commonwealth environmental management guidance on PFOS and PFOA'.*

It is intended that the development of the project on the airport site will be authorised by the Commonwealth Infrastructure Minister varying the Airport Plan to include the rail development and any required conditions for the rail development taking account of any advice from the Commonwealth Environment Minister. If the existing conditions in the Airport Plan for the Stage 1 airport development require variation to accommodate the rail development, agreement from the Commonwealth Environment Minister would also be required. Separate approval of the on-airport rail development under the Part 9 of Environment Protection and Biodiversity Conservation (EPBC) Act 1999 will not be required.

The Airports (Environment Protection) Regulations (AEPR) 1997 provide regulation and accountability for activities at airports that generate or have a potential to generate pollution. They include requirements for the assessment and remediation of contamination.

Appendix C

Off-airport history review
and preliminary CSM

Appendix C

1 St Marys

This section describes the site history review, areas of concern, contaminants of potential concern (CoPC), preliminary CSM and risk ranking for the St Marys construction footprint.

1.1 Construction site description

The St Marys construction footprint is defined in Table 1-1 and boundary shown on Figure A1 in Appendix A.

Table 1-1 Site description - St Marys construction footprint

Item	Description		
Location	St Marys and North St Marys		
LGA	Penrith City Council		
Area	13.5 hectares		
Property description	Address	Lot and DP	Current land use
Site laydown area in Harris Street	36-38 Harris Street	Part Lot A, B and C in DP152452	Commuter car park and concourse
St Marys Station, Crossover Box, Site Laydown Area and utilities connections within Sydney Trains rail corridor	2 Station Street	Lot 2 DP1001735	Railway corridor
	11-13 Chesham Street	Lot 1, 2 and 3 in DP542707	Vacant publicly accessible land
	Lethbridge Street	Lot 1 DP1255392	Vacant publicly accessible land
	63 Station Street	Lot 1 DP1040178	Rail corridor
	1 Station Street	Lot 1 DP1001735	Sydney Trains Incident and Emergency Response Unit depot
	Station Street	Road reserve	Road
Road alterations	Glossop Street	Lot 21 and 22 in DP36191	Vacant publicly accessible land
	Harris Street, Station Street, Queen Street, West Lane, Carina Avenue, Camira Street, Kalong Avenue	Road reserve	Road
	54-68 Carinya Avenue	Lot 180, 181, 182, 183, 184, 185, 186 and 187 in DP26908	Belar Place public car park
Site laydown area in Station Street	33-34 Phillip Street	Lot 7 DP734738	St Marys Station Plaza
	8 Station Street	Lot 8 DP734738	St Marys Station Plaza driveway
	45 Station Street	Lot 9 DP840717	Veness Place public car park
Construction phase St Marys Bus Interchange	70-76 Carinya Avenue	Part Lot 210 DP26908 and Lot 179 DP26908	Nariel Place public car park

1.2 Zoning

The St Marys construction footprint is zoned the following under the Penrith LEP 2010:

- INI - Industrial: Portion of the construction site north of the railway corridor
- B4 - Mixed Use: Portion of the construction site south of railway corridor including St Marys Station Plaza
- SP2 - Infrastructure: The railway corridor and St Marys Station
- R4 - High Density Residential: The portion of the site east of St Marys Station Plaza and south of the railway corridor
- R3 - Medium Density Residential: The part of Glossop Street south of the railway corridor
- DM - Deferred Matter: Part of Glossop Street south of the railway corridor and Hobart Street.

1.3 Historical aerial review

The following was observed at the St Marys construction site footprint on the north side of the railway from the review of historical aerial photographs:

- 36-38 Harris Street: appeared to comprise a livestock sales yards and a building (possibly the former Railway Hotel) in 1943. The sales yards were demolished by 1955 and the building remained. The sales yards were converted into a carpark and the potential hotel building demolished by 1970. The multistorey car park on the site was not constructed in 2005
- Adjacent properties in Harris Street: commercial and industrial buildings were progressively developed and redeveloped between 1955 and 1994. There appeared to be a bus depot/transport business within the property at 24 Harris Street between 1970 and 1994 and was redeveloped for a commercial premises by 2005.

The railway corridor and station within the St Marys construction footprint generally appeared similar to the present day with the exception of:

- a former rail siding in the location of the existing bus interchange which connected to the heritage listed 'goods shed', until redevelopment as the bus interchange by 1994
- a former level crossing between Queen Street and Forrester Road which appeared closed by 1970
- a former rail siding on the west side of Forrester Street that appeared operational in the 1943 to 1970 aerial photographs
- half a dozen small sheds near Forrester Street demolished by 1955 and construction of a present day shed by 1994
- significant alterations and additions to the station platform buildings and concourse between 1994 and 2005.

The following was observed of the St Marys construction footprint on the south side of the railway corridor from the review of historical aerial photographs:

- 11-13 Chesham Street and Lethbridge Street easement: Appeared to be an unsealed road in 1943 and 1955. By 1970 the road was gone and appeared vacant unused land. A building (Girl Guides Hall) was present in the centre of the street in the 1980, 1994 and 2005 aerials and has since been demolished
- 1 Station Street: In 1943 and 1955 the property comprised a vacant fenced off-site and was cleared with no fence in 1970 and 1980. By 1994 the present-day depot was present
- 8 Station Street and 33-34 Phillip Street: Contained several residential properties up until 1980 when the houses appeared to be mostly demolished. By 1994 the present-day St Marys Station Plaza was completed

- 45 Station Street: Contained several residential properties and potentially two small commercial premises fronting Station Street in 1943 up until 1970. By 1980 all buildings from 1943 and 1955 appeared demolished. By 1994 the property was developed into the present day Veness Place public car park and driveway of St Marys Station Plaza
- 70-76 Carinya Avenue: Was a residential property by 1943 until demolition prior to 1994 and redevelopment into a carpark by 2005
- 54-68 Carinya Avenue: Consisted of eight residential properties in 1943, 1955 and 1970. Houses at number 62, 64 and 66 Carinya Avenue were demolished by 1980, and number 68 by 1994. Those properties were used as a car park in 1994. By 2005 all houses were demolished.

The following was observed surrounding the St Marys construction footprint from the review of historical aerial photographs:

- the Sydney Trains Substation on the corner of Harris Street and Glossop Street was under construction as a substation in 1955 and appeared to be the same as the present-day substation by 1970
- the properties located on the west side of Queen Street:
 - 1-7 Queen Street: the building was present in the 1955 aerial, however in 1943 a different detached building was present within the same footprint. There were changes in the western half of the property including an addition of a shed and growth and removal of trees over the decades
 - 9 Queen Street: A building present in 1943 appeared to have been demolished and replaced with the present day building by 1955. There were no significant changes from the present day
 - 11 Queen Street: Several small sheds appeared present in the western half of the property in 1943. The present day building appeared constructed by 1955. With the exception of the demolition of the small sheds there were no significant changes between 1955 and the present day
 - 17 Queen Street: with the exception of a small shed at the east side of the property, the property appeared undeveloped in 1943. The building was constructed in the time period between 1955 and 1970
 - 21 Queen Street: the property was vacant in 1955 and the present day building visible in the 1970 aerial photograph
 - 25 Queen Street: the existing building was present since 1955 and appeared undeveloped in 1943

27 Queen Street: In 1943 there was one small building in the centre of the site and two small sheds near the north and east boundary. The present-day hotel was constructed by 1955, with modifications made over the following decades

- the block bound by Queen Street, Belar Street, Nariel Street and West Lane:
 - 43 Queen Street: was undeveloped up until 1970 when it appeared to be the same as the present-day building
 - 45 Queen Street: was undeveloped up until the 1980 aerial photograph, in which it appeared to be the present-day building
 - 47 Queen Street: was undeveloped in 1943. By 1955 there was one building fronting Queen Street at the southern end of the lot. In 1970 the site appeared to be a construction site. The present-day telephone exchange building appeared complete by 1980 and the 1955 building was gone
 - 57 Queen Street: was undeveloped until 1955 when it appeared to contain a small building fronting Queen Street in 1955. Appeared to be redeveloped by 1970 with the present-day building

- 59 Queen Street: was undeveloped in 1943 and appeared to be a workshop/service station in 1955 with forecourt fronting Queen Street. It was redeveloped into the present day building by 1970 and extended in subsequent decades
- a service station was visible at 47 Phillip Street at the southern boundary of the site in the 1980 aerial photograph
- industrial buildings and railway sidings were located to the north east of the site in the location of the former St Marys ammunition factory's in 1955 and were redeveloped and extended over the following decades.

1.4 Historical business records

The following business directory information was identified for properties on the north side of the railway corridor east of the St Marys construction site footprint:

- 12 Harris Street:
 - Eitz Steel Construction Pty Ltd (1965-1980)
 - Poultry Requirements Pty Ltd (packaging, filling & assembling services, 1980)
- 14-16 Harris Street:
 - Ideal Capsules Aust. Pty Ltd (packaging manufacturing, 1970)
 - Eric Soul Industries (glass manufacturing, 1974-1980)
 - Silverwood & Beck (glass merchants, 1980)
 - Award Constructions Pty Ltd (building contractors, 1990)
 - Viva Aluminium Windows & Doors Pty Ltd (building contractors, 1990)
 - Vivi Constructions Pty Ltd (building contractors, 1990) and
 - Home Care Manufacturing Pty Ltd (building contractors, 1990).

The following business directory information was identified for properties on the south side of the railway corridor within the St Marys construction footprint:

- 43 Queen Street: Fletcher & Foster Pty Ltd (Waterproofing, 1980), J Hamden (General Store, 1990)
- 59 Queen Street: Champion Cycles & Sports Centre (1980), HT Smith Auto Parts (1980), Blackman Bicycles (1990), Buttons & Bows (Knitting Store, 1980)
- 60 Carinya Avenue: Turin Imports (clothing - button and buckle manufacturers &/or wholesalers, 1980).

The following were located topographically up-gradient of the St Marys construction footprint:

- 47 Phillip Street: Phillip Street Auto Port/Shell service station (1974-1990). Now a Centrelink office located on southern boundary of the construction footprint
- 51 Phillip Street: Monarch 60 Min Dry Cleaners (1990). Now used for retail and offices located on southern boundary of the site
- 86 Queen Street: Jet Dry Cleaners Pty Ltd (1965), located 85 metres south of the site.

There were hundreds of listings of historical businesses in the industrial zone north of the St Marys construction footprint including chemical and industrial manufacturing, textiles, mechanical repairs, bus and earthmoving business depots and yards. The industrial area is down-topographic gradient of the St Marys construction footprint, therefore the likelihood of groundwater contamination from off-site groundwater migration is low.

1.5 Historical titles

Historical titles were obtained and reviewed for the properties in Table 1-2. Copies of the historical titles search are included in Appendix E.

Table 1-2 10.7 Certificates - St Marys construction footprint

Property	Historical title information
24 Harris Street North St Marys NSW 2760 Lot 112 in DP880997 (directly adjacent and up-gradient of construction footprint)	<ul style="list-style-type: none"> Private ownership until 1948 Owned by Bowmans Bus Service Pty Ltd/Westbus Pty Ltd to 1948 to 1987 (likely a bus depot) Consolidated into one lot in 1987 Currently owned by Kew projects Pty Ltd since 1998.
14-16 Harris Street North St Marys NSW 2760 Lot 8 in DP29111 (up-gradient of construction footprint)	<ul style="list-style-type: none"> Private ownership until 1970 until sold to current owner Kew projects Pty Ltd Leased to Acnil Industries Pty Ltd (plastics manufacturers) between 1979 and 1982.
12 Harris Street North St Marys NSW 2760 Lot 9 in DP29111 (up-gradient of construction footprint)	<ul style="list-style-type: none"> Private ownership until purchased by Stewardson and ills (Properties) in 1965 Owned by the following businesses until purchase by the current owners Wilkins 12 Harris Street Pty Ltd in 2016: <ul style="list-style-type: none"> 1969-1985: Poultry Requirements Pty Ltd 1985-1988: G.E.M Fabrications Pty Ltd (later the Fence Factory Pty Ltd) 1988 to 2001: Roberts Bros Spuncasting (sales) Pty Ltd 2001 to 2016: Robert Errol Wilkins (Wilkins Windows).
6-8 Harris Street North St Marys NSW 2760 Lot 10 in DP29111 (up-gradient of construction footprint)	<ul style="list-style-type: none"> Private ownership until 1986 Owned by Horst, Rolf and Rita Eitz of Eitz Steel Construction Pty Ltd between 1960 and 1986 Owned by Viva Home Improvements Pty Ltd between 1986 to 1992 Owned by Sodene Pty Ltd (furniture manufacturers) between 1992 to 1996 Owned by Jaramis Holdings Pty Ltd (business activity unknown, likely carpentry/joinery business) between 1996 and 2017 Owned by Marant Pty Ltd (carpentry/joinery business) between 2017 and 2018 Michael Brookes Pty Ltd current owner in 2019.
11-13 Chesham Street St Marys NSW 2760	<ul style="list-style-type: none"> Formed part of Station Street until 1969 The Council of the City of Penrith 1969 to date (use/purpose not stated).
45 Station Street St Marys NSW 2760 Lot 9 in DP840717	<ul style="list-style-type: none"> Various private owners until purchase and consolidation of the lot by the City of Penrith between 1969 and 1979 The property was never owned by a business The occupations of the former owners included a motor mechanic, tanner, engineer, electrical worker and farmer.

1.6 Section 10.7 certificates

Section 10.7 certificates were obtained for the six selected properties listed in Table 1-3. None of the sites had matters listed under the CLM Act.

Table 1-3 10.7 Certificates - St Marys construction footprint

Property	Planning Certificate
24-30 Harris Street North St Marys NSW 2760(directly adjacent and up-gradient of construction footprint)	19/03615
2 Harris Street North St Marys NSW 2760 (up-gradient of construction footprint)	19/03617
6-8 Harris Street North St Marys NSW 2760(up-gradient of construction footprint)	19/03618
18 Harris Street North St Marys NSW 2760 (up-gradient of construction footprint)	19/03616
11-13 Chesham Street St Marys NSW 2760	19/03619
45 Station Street St Marys NSW 2760	19/03620

1.7 NSW EPA records

1.7.1 Sites regulated under the CLM Act 1997

There were no regulated sites within 1 km of the St Marys construction footprint.

1.7.2 Sites notified to the NSW EPA under the CLM Act

There were four notified sites within 1 km of the St Marys construction footprint, however none were located topographically up-gradient and therefore an unlikely source of contamination to the St Marys construction footprint. The notified sites were:

- the St Marys Shopping Village, Charles Hackett Drive: under assessment by the NSW EPA and with activity that caused contamination listed as 'other industry'. It is noted there is a dry-cleaning business within the complex
- the BP Service Station, 76 Glossop Street, North St Marys: assessed by the NSW EPA as not requiring regulation
- the former Woolworth Service Station, 120-128 Forrester Road, St Marys
- the Caltex St Marys Service Station, Corner of Wordoo Street and Forrester Street St Marys.

1.7.3 Sites currently licensed under the POEO Act

There were six properties within 1 km of the St Marys construction footprint licensed under the POEO Act 1997:

- Vetlab Pty and Autopak Formulations are located, on the northern side of Harris Street and are licensed under EPL 1035 for:
 - 'Chemical storage waste generation'
 - 'Pesticides and related products production'
 - 'Chemical production waste generation'
 - 'Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste'
 - 'Pharmaceutical and veterinary products production'
 - 'Non-thermal treatment of hazardous and other waste'
- McClean Excavations Pty Limited located 280 metres north east at 33-37 Plasser Crescent and are licensed under EPL 20975 for resource recovery and waste storage
- Southern Oil Collection Pty Ltd located 230 metres north at 27 Forthorn Place and are licensed under EPL 20268 for non-thermal treatment of hazardous and other waste

- Coopers Environmental Waste Recycling Pty Ltd located 360 metres north east at 11 Kurragong Road and are licensed under EPL 12473 for non-thermal treatment of hazardous and other waste.

All of the above appear to be located topographically down-gradient and therefore unlikely to be a potential groundwater contamination source to the St Marys construction footprint.

1.7.4 Sites formerly licensed under the POEO Act

There were three formerly licensed sites within 1 km of the St Marys construction footprint:

- Better Drums were located 280 metres east of the St Marys construction footprint at 42 Plasser Crescent and was formerly licensed under EPL 11963 for 'Waste Storage, Transfer, Separating and Processing'. The license was surrendered in 2008
- HI Quality Waste Management located 900 metres north west of the St Marys construction footprint at 37 Lee Holm Street St Marys were formerly licensed under EPL 5857 for the 'Non-thermal Treatment of Hazardous Waste and Hazardous Industrial or Group A Waste Generation or Storage' (surrendered 2005)
- CNH Australia Pty Ltd were located 600 metres east of the St Marys construction footprint and licensed for 'Hazardous, Industrial or Group A Waste Generation or Storage' until 2010
- Land Foam Australia were located 300 metres north of the St Marys construction footprint at 26 Forthorn Place and 79 Forrester Road St Marys and formerly licensed for toxic substances production.

All of the above appear to be located topographically down-gradient and therefore unlikely to be a potential groundwater contamination source to the St Marys Station Site.

1.7.5 Sites with penalty or clean up notices

The following sites within 1 km of the St Marys construction footprint had former penalty or clean-up notices:

- HI Quality Waste Management and Ableway Waste Management 900 metres north west at 37 Lee Holm Street St Marys had numerous penalty notices for contravening condition of license and Section 91 clean up notices
- A&C Bins St Marys 280 metres east at 33-37 Plasser St Marys Crescent had one former Section 91 clean up notice.

The two above premises appear to be located topographically down-gradient and therefore unlikely to be a potential contamination source to the St Marys construction footprint.

1.7.6 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the St Marys construction footprint.

1.8 Previous reports

1.8.1 Environmental Strategies (2015 and 2016) – DSI and RAP for 1-7 Queen Street

The following two reports were reviewed for the property at 1-7 Queen Street, located adjacent to the western boundary of the St Marys construction site footprint:

- Environmental Strategies (Environmental Strategies) Pty Ltd (2015) Detailed Site Assessment (Phase 2) 1-7 Queen Street, St Marys NSW
- Environmental Strategies Pty Ltd (2016) Remediation Action Plan, 1-7 Queen Street, St Marys, NSW.

Environmental Strategies (2015) reported that Argus undertook a preliminary site investigation (PSI) of the site in 2015. The PSI found that there were vent pipes and vent stacks above the tailoring shop. There was no other evidence that dry cleaning had occurred based on historical titles, dangerous goods records, anecdotal information and observations from the site.

Environmental Strategies (2015) drilled six boreholes to 3 m bgl and two boreholes to 6 m at the rear (west side) of the building. Selected soil samples were analysed for TRH, benzene, toluene, ethylbenzene and xylenes (BTEX), PAH, volatile organic compounds (VOCs), PCBs, heavy metals, OCP, OPP, phenols and asbestos. Fill was encountered to depths between 0.6 and 0.8 m bgl in most boreholes comprising gravelly silt/silty gravel (angular), with one piece of bonded ACM encountered in one borehole. 'Musty' odours were described in the boreholes closest to the building and elevated VOC photoionisation detector (PID) readings were recorded in the borehole closest to the building. VOC readings were between 250 and 550 ppm in natural silty clays between 0.2 and 4.6 m bgl and 8 ppm in shale at 7 m bgl. Tetrachloroethane was detected at concentrations of between 37 and 120 milligrams per kilogram (mg/kg) between 0.5 and 3 m bgl respectively in the borehole closest to the building.

Environmental Strategies (2015) installed and sampled two groundwater monitoring wells to 7.3 m bgl with the screened interval in weathered shale. During drilling the recorded groundwater inflow was recorded at 6.4 m bgl. Two existing wells that were also sampled that were 4 and 6 metres deep. The standing water level (SWL) was measured in all wells between 2.3 and 2.6 metres below top of the well casing. No odours or sheens were observed in the groundwater. The groundwater analytical results of chemicals with concentrations that were greater than the laboratory limit of reporting (LOR) are listed in Table 1-4.

A remedial action plan (RAP) was prepared by Environmental Strategies (2016) to remediate on-site soil and groundwater. The preferred remediation option was excavation and off-site disposal of soil after building demolition and on-site land farming with active soil vapour extraction (SVE). Excavations would extend to 0.5-1 metre below the groundwater level. Groundwater would be monitored following remediation and a mitigation barrier installed below the new building basement slab and a possible SVE system. It was stated that off-site impacts would be investigated and addressed at a later stage through management or remediation.

Table 1-4 Summary of groundwater results at 1-7 Queen Street from Environmental Strategies (2015)

Analyte	Chemical name	Detected concentrations (microgram per litre [µg/L])	Criteria (µg/L)
VOCs	1,1,2,2-tetrachloroethane	1	-
	1,1,2-trichloroethane	8	ANZG (2018) - 6500
	1,1-dichloroethene	1	NHMRC (2019) ADWG* – 300
	cis-1,2-dichloroethene	2 - 17	-
	Trichloroethene (TCE)	27 - 110	-
	Tetrachloroethene (PCE)	36 - 13,000	WHO (2011)* – 400
	trans-1,3-dichloroethene	2	-
	1,2,4-trimethylbenzene	2	-
	Toluene	1 - 3	-
	Xylene (m&p)	4	ANZG (2018) - 200
	Xylene (o)	2	ANZG (2018) - 350
TRH	C ₆ – C ₁₀	21 - 8200	-

Analyte	Chemical name	Detected concentrations (microgram per litre [µg/L])	Criteria (µg/L)
Heavy metals	Cadmium	0.4 - 2.6	ANZG (2018) – 0.2
	Copper	2 - 10	ANZG (2018) - 1.4
	Lead	5	ANZG (2018) – 3.4
	Nickel	16 - 58	ANZG (2018) - 11
	Zinc	11 - 820	ANZG (2018) - 8

Notes: ANZG (2018) – Australian and New Zealand Guidelines for Fresh and Marine Water Quality (95% guideline values for 95% protection level for freshwater species). WHO (2011) – World Health Organisation Drinking Water Guidelines * Multiplied by factor of 10 for recreational screening criteria NHMRC ADWG – National Health and Medical Research Council - Australian Drinking Water Guidelines. Bold - exceeds criteria.

1.8.2 Golder and Douglas Partners (2019a) – Supplementary site investigation for 1-7 Queen Street

Golder and Douglas Partners undertook a supplementary site investigation for the former dry cleaners site at 1-7 Queen Street, St Marys (Golder and Douglas, 2019a). The investigation was undertaken for due diligence purposes for potential acquisition of the property. The scope of works included:

- installation of two groundwater monitoring wells (GW1 and GW2)
- sampling and analysis of soil samples from GW1 for metals, TRH, BTEX, PAHs, OCP, OPPs, PCB and VHCs
- groundwater sampling of new and existing wells (GW01, GW02, MW1 and MW2) and analysis for VHCs, BTEXN and TRH C₆ to C₁₆ fraction
- installation and sampling of one soil vapour monitoring pin (sub-slab) (SVP01) and sampling with Summa® canisters for low level VHCs, BTEXN and TRH C₆ to C₁₆ fraction
- installation of ten in-situ passive soil vapour sampling probes (Waterloo Membrane Samplers [WMS]) (WMS01-WMS10) installed from 0.7 to 1.0 m bgl and analysed for low level VOCs, BTEXN and volatile TRH C₆ to C₁₆ fraction
- eight-hour sampling of indoor air quality in the two buildings within the property.

The fill and soil conditions encountered by Golder and Douglas Partners (2019a) were consistent with the previous Environmental Strategies (2015) DSI. The groundwater, soil vapour and ambient air results are summarised in

Table 1-5. The investigation found that VHC concentrations in soil vapour exceeded interim health investigation levels for commercial/industrial land use (ASC NEPM 2013) within the central portion of the property. Dissolved phase VHC contamination in groundwater did not extend off-site to the south or west. The groundwater and soil vapour impacts have not been delineated to the north east and eastern boundaries within the construction footprint. Dense non-aqueous phase liquids were considered to be likely present within the property based on the soil vapour concentrations.

Table 1-5 Summary of results at 1-7 Queen Street from Golder and Douglas Partners (2019a)

Location ID	Details	Criteria exceedances
GW01	Groundwater monitoring well screened between 4.5 to 7.5 m bgl in shale	<ul style="list-style-type: none"> • No exceedances.

Location ID	Details	Criteria exceedances
GW02	Groundwater monitoring well screened between 5 to 8.0 m bgl in shale	<ul style="list-style-type: none"> No exceedances.
MW01	Existing groundwater well screened 4.3 to 7.3 m bgl in shale	<ul style="list-style-type: none"> The following exceeded adopted screening criteria: <ul style="list-style-type: none"> TRH C6-C10 – 4.4 mg/L (ADWG) Cis-1,2-dichloroethene – 387 µg/L (ADWG) Trichloroethene – 410 µg/L (ANZG) Tetrachloroethene – 3920 µg/L (ADWG*).
MW02	Existing groundwater well screened 4.3 to 7.3 m bgl in shale	<ul style="list-style-type: none"> The following exceeded q <ul style="list-style-type: none"> TRH C6-C10 – 2.04 mg/L (ADWG) Tetrachloroethene – 1960 µg/L (ADWG*).
SVP01	Soil vapour probe	<ul style="list-style-type: none"> The following exceeded interim soil vapour HIL D: <ul style="list-style-type: none"> cis-1,2-Dichloroethene – 3.2 mg/m³ (HIL 0.3 mg/m³) Trichloroethene - 6 mg/m³ (HIL 0.08 mg/m³) Tetrachloroethene – 14 mg/m³ (HIL 8 mg/m³).
AA01	Indoor ambient air	<ul style="list-style-type: none"> All results less than ambient air criteria
AA02	Indoor ambient air	<ul style="list-style-type: none"> All results less than ambient air criteria.
WMS01-WMS10	Subsurface passive membrane samplers	<ul style="list-style-type: none"> The following exceeded interim soil vapour HIL D: <ul style="list-style-type: none"> WMS01: <ul style="list-style-type: none"> cis-1,2-Dichloroethene – 3600 µg/m³ (HIL 300 µg/m³) trichloroethene – 850 µg/m³ (HIL 80 µg/m³) vinyl chloride – 120 µg/m³ (HIL 100 µg/m³) WMS02: trichloroethene – 130 µg/m³ (HIL 80 µg/m³).

Notes: ANZG (2018) – Australian and New Zealand Guidelines for Fresh and Marine Water Quality (95% guideline values for 95% protection level for freshwater species). WHO (2011) – World Health Organisation Drinking Water Guidelines * Multiplied by factor of 10 for recreational screening criteria. NHMRC ADWG – National Health and Medical Research Council - Australian Drinking Water Guidelines. Bold - exceeds criteria. HIL D – health investigation levels for commercial/industrial land use (ASC NEPM 2013)

1.8.3 Golder and Douglas Partners (2019b/c) - project preliminary soil and groundwater investigations

Preliminary soil and groundwater investigations were undertaken in parts of the study area, including the St Marys construction footprint. The results were presented in the following reports:

- Golder and Douglas Partners (2019b) Factual Contamination Report – Preliminary Site Investigation – Sydney Metro West Geotechnical Investigation, 1 November
- Golder and Douglas Partners (2019c) Groundwater Monitoring Report – Sydney Metro West Geotechnical Investigation, 15 October 2019.

The Golder and Douglas Partners (2019b) investigation included sampling and analysis of soil of four boreholes for TRH/total petroleum hydrocarbons (TPH), BTEXN, polycyclic aromatic hydrocarbons (PAHs), heavy metals, organochlorine pesticides (OCPs), OPPs, PCBs, VOCs, phenols, PFAS, phenols, and asbestos. The results were screened against the ASC NEPM (2013) and PFAS National Environment Management Plan 2.0 (NEMP) (HEPA, 2020) human health and ecological investigation levels for commercial and industrial land use. The locations and results are summarised in Table 1-6 and locations shown on Figure A1 in Appendix A.

Table 1-6 Summary of soil results within St Marys construction footprint (Golder and Douglas Partners, 2019b)

Borehole ID	Location	Summary of results
SMGW-BH-A001	Within construction footprint on the north side of St Marys Station	<ul style="list-style-type: none"> • Fill containing inclusions of bricks and tiles encountered to 0.5 metres depth. • No odours or staining noted in borelogs. • No elevated VOC concentrations in soil samples screened in the field by photoionisation detector (PID). • All analytical results less than the adopted screening criteria.
SMGW-BH-A002	Within the cut and cover and downgradient of 1 Station Street (current Sydney Trains Emergency Response Depot) and within the rail corridor	<ul style="list-style-type: none"> • Fill was encountered to 0.7 metres depth with no anthropogenic inclusions noted on the borelogs. • No odours or staining noted in borelogs. • No elevated VOC concentrations in soil samples screened in the field by PID. • The concentration of arsenic in the sample collected from 0.5 metres depth was 172 mg/kg, exceeding the ecological screening level of 160 mg/kg. • All other results were less than the screening criteria.
SMGW-BH-A003	Outside the construction footprint at 1-7 Queen Street (former dry cleaners)	<ul style="list-style-type: none"> • All results less than the adopted screening criteria.
SMGW-BH-A004	Within the construction footprint in the current Veness Place public car park	<ul style="list-style-type: none"> • All results less than the adopted screening criteria.

One new groundwater monitoring well, SMWG-BH-A002, was installed and sampled (Golder and Douglas Partners, 2019c). The well was screened between 21.7 and 27.7 m bgl. The groundwater sample was analysed for electrical conductivity, total dissolved solids, pH, major ions, heavy metals (As, Ba, B, Co, Cd, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Zn), TRH/TPH, BTEXN, PAHs, VOCs, SVOCs, nutrients and PFAS. Groundwater analytical results were screened against the:

- ASC NEPM (2013) groundwater health screening levels (HSLs) for vapour intrusion for commercial/industrial land use (sand, 0 to <1 m)
- ANZAST, 2018. Australian and New Zealand Guidelines (ANZG) for Fresh and Marine Water Quality 95% trigger values for freshwater ecosystems
- Australian Drinking Water Guidelines (ADWG, published by the National Health and Medical Research Council (NHMRC) and National Resource Management Ministerial Council (NRMMC) 2011 (factor of 10 applied for recreational receptors)
- Australian and New Zealand Environment and Conservation Council (ANZECC)/Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) (2018) irrigation water long-term trigger values.

Groundwater was saline (electrical conductivity – 19,530 $\mu\text{S}/\text{cm}$) and slightly acidic (pH 6.62). The result exceeding the most conservative groundwater criterion were:

- Ammonia: 2.96 mg/L (ANZG)
- Total nitrogen: 3 mg/L (ANZG)
- Dissolved cobalt: 20 $\mu\text{g}/\text{L}$ (ANZG)
- Dissolved manganese: 1530 $\mu\text{g}/\text{L}$ (ADWG)
- Dissolved copper: 2 $\mu\text{g}/\text{L}$ (ANZG)

- Dissolved zinc: 26 ug/L (ANZG).

1.8.4 JBS&G (2020) Statement of Environmental Effects Remediation Works 11-13 Chesham Street St Marys NSW

JBS&G Australia Pty Ltd (JBS&G) prepared a Statement of Environmental Effects report for Category 1 remediation works at 11-13 Chesham Street St Marys (JBS&G, 2020). The report stated that previous contamination investigations has identified demolition waste and ACM in soil in the location of a former Girl Guides Hall which was demolished in 2011 (refer to AEC 3, Figure A1 in Appendix A). A RAP was then prepared to address asbestos and aesthetic impacts.

1.9 Other historical information

Penrith in Pictures from Penrith Council Library website (accessed 4 September 2019 <http://www.photosau.com.au/penrith/scripts/ExtSearch.asp?SearchTerm=002407>) showed the following photographs with captions for 56 Queen Street St Marys:

- in 1948 was Lance and Frazer Service Station and Garage, with at least six fuel dispensing pumps near the corner of Belar and Queen Street
- in 1969 Honda Motorcycles had a sales and service centre fronting Queen Street.

Online photographs showed that the Sydney Trains depot at 1 Station Street formally had Hazmat signage for petroleum hydrocarbon storage. The site may have formerly had either USTs or ASTs.

Rail sidings and sheds which were part of the former St Marys Munitions Factory was located directly north of the St Marys construction footprint, on the western side of Forrester Street. The munitions factory was then used as A.E Goodwin locomotive manufacturing site. The subject land appears to be located topographically down-gradient and therefore unlikely to be a potential contamination source to St Marys construction footprint.

1.10 Site inspection

An inspection of publicly accessible areas of the St Marys construction footprint was undertaken in August 2019. There was evidence of former UST fill points and fuel dispensing pumps on the northeast corner of Harris Street and Forrester Street (see Plate 1). The subject land appears to be located topographically down-gradient and therefore unlikely to be a potential contamination source to the St Marys construction footprint.

Numerous fragments of ACM were observed in bare surface soil on the north side of Harris Street (see Plate 2). The land uses and businesses along Harris Street were the same as identified in the desktop review.



Plate 1 Decommissioned USTs and fuel dispensing pumps on the corner of Harris Street and Forrester Street St Marys

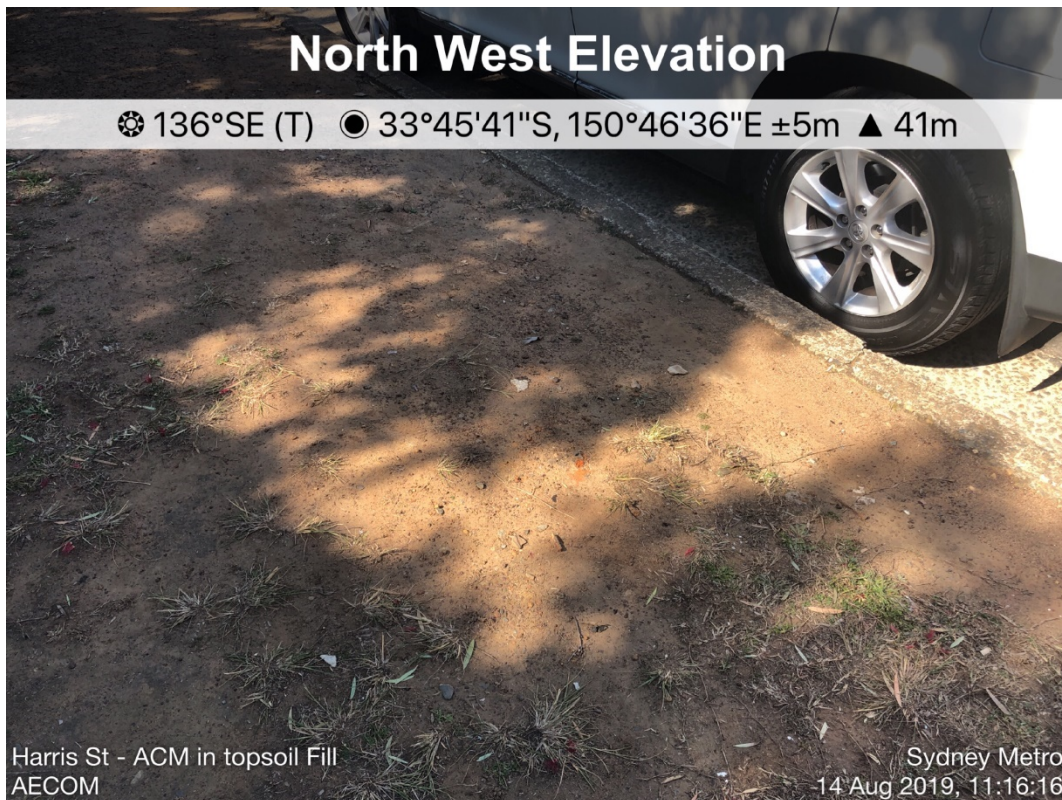


Plate 2 Potential ACM fragments in bare surface soils on the north side of Harris Street, St Marys

1.11 Preliminary CSM and risk ranking

Table 1-7 presents the preliminary CSM for St Marys construction footprint based on the findings of the desktop review and the project construction. The CSM lists the key project construction and operation components, areas of concern, sources and CoPC, exposure pathways and receptors and risk ranking. The areas assigned as medium and high risk are shown on Figure A1 in Appendix A.

Table 1-7 Preliminary CSM – St Marys construction footprint

Construction activities	AEC	Source and CoPC	Exposure Pathway	Receptor	Potentially Complete SPR	Consequence (C), likelihood (L) and overall risk ranking
Construction: Demolition and installation of temporary site offices, laydown areas, worker amenities, fencing and light and heavy car parking areas. Limited and minor excavations for footings, no bulk earthworks or dewatering. Existing pavements to remain during construction. Operation: Northern pedestrian bridge	AEC 1: Commuter car park at 36-38 Harris Street, St Marys North	Source: Former fuel, oil and chemical storage and use associated with historical wreckers yard and adjacent former bus depot CoPC: Heavy metals, TRH, VOCs and SVOCs, (soil and groundwater)	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Off-site human receptors 	Yes	C3/L2 Medium ³
			Surface water runoff	<ul style="list-style-type: none"> South Creek¹ 	Yes	
			Vapour intrusion	<ul style="list-style-type: none"> On and off-site intrusive maintenance workers 	Yes	
			Groundwater migration – vapour intrusion	<ul style="list-style-type: none"> Off-site commercial/industrial 	Yes ²	
		Source: Past use of hazardous building materials CoPC: Asbestos, lead, PCBs (in soil)	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> Construction workers Off-site human receptors 	Yes	C3/L2 Medium ³
		Source: Off-site industrial land use, groundwater CoPC: TRH, VOCs and PFAS	Vapour intrusion	<ul style="list-style-type: none"> On-site intrusive maintenance workers 	No	C1/L1 Low

Construction activities	AEC	Source and CoPC	Exposure Pathway	Receptor	Potentially Complete SPR	Consequence (C), likelihood (L) and overall risk ranking
Construction area: Major bulk excavation (cut and cover), groundwater dewatering, installation of temporary structures (amenities shed, laydown areas, car parking, site offices and water treatment plant) Operation: Underground station and tunnel stubs (undrained tunnel)	AEC 2: 1 Station Street, St Marys and rail corridor, current bus interchange area (western portion)	Source: Potential former fuel storage within Sydney Trains Emergency Response Depot, former railway siding activities (spills and stockpiling, filling) and up-gradient sources of groundwater contamination (dry cleaners and service station) CoPC: Heavy metals, TRH, BTEX, PAHs, PCBs, OCPs, VOCs, asbestos	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Off-site human receptors Future commercial workers and intrusive maintenance workers 	Yes	C3/L3 High
			Surface water runoff and groundwater extraction	<ul style="list-style-type: none"> South Creek¹ 	Yes	C3/L3 High
			Vapour intrusion	<ul style="list-style-type: none"> On and off-site intrusive maintenance workers 	Yes	C3/L3 High
			Groundwater migration – vapour intrusion	<ul style="list-style-type: none"> Off-site intrusive maintenance workers 	Yes	C3/L3 High
	AEC 3A: Formerly demolished building Girl Guides Hall	Source: Past hazardous building materials CoPC: Asbestos and lead	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> Construction workers 	Yes	C2/L2 Medium

Construction activities	AEC	Source and CoPC	Exposure Pathway	Receptor	Potentially Complete SPR	Consequence (C), likelihood (L) and overall risk ranking
Construction: Demolition of building, establishment of laydown area. No earthworks. Operation: No permanent facility, site	AEC 3B: St Marys Station Plaza	Source: Potential chemical storage for back-up generators and air conditioning units and potential use of ACM in the plaza building. Historical demolition of former buildings containing hazardous building materials. CoPC: Heavy metals, TRH, PAHs and asbestos	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> Construction workers Off-site human receptors 	Yes	C2/L2 Medium
Construction: Establishment of laydown area. No earthworks. Operation: No permanent facility, site suitability for future land use not assessed	Veness Place public car park, 45 Station Street, St Marys	Source: Up-gradient adjacent sources of groundwater contamination (former dry cleaners and former service station) CoPC: Lead, TRH, PAHs, VOCs	No pathway	<ul style="list-style-type: none"> Construction workers Off-site human receptors 	No	C3/L1 Low
		Source: Past hazardous building materials CoPC: Asbestos and lead paint	No pathway	<ul style="list-style-type: none"> Construction workers Off-site human receptors 	No	C2/L1 Low

Construction activities	AEC	Source and CoPC	Exposure Pathway	Receptor	Potentially Complete SPR	Consequence (C), likelihood (L) and overall risk ranking
Construction: Site Laydown Area. No surface disturbance works. Operation: No permanent facility, site suitability for future land use not assessed	Belar Place public car park, 62-68 Carinya Avenue	Source: Past hazardous building materials CoPC: Asbestos and lead paint	No pathway	<ul style="list-style-type: none"> Construction workers Off-site human receptors 	No	C2/L1 Low
		Source: Up-gradient adjacent sources of groundwater contamination (former service station and Telstra telephone exchange USTs) CoPC: Lead, TRH, PAHs, VOCs	No pathway	<ul style="list-style-type: none"> On-site construction workers Off-site human receptors 	No	C3/L1 Low

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact) 2. Outside of project footprint 3. If existing pavements are removed during construction the risk ranking would be revised to high and does not apply to land use post construction.

2 St Marys to Orchard Hills project alignment

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the project alignment between the St Marys and Orchard Hills construction footprint where the driven tunnel is proposed. The driven tunnel alignment is shown on Figure A1 to A5 in Appendix A.

2.1 Zoning

The zoning within 1 km of the project alignment is mainly RE1 Public Recreation, E2 Environmental Conservation, R2 Low Density Residential, R3 Medium Density Residential, R4 High Density Residential, SP2 Infrastructure and RU4 Primary Production Small Lots.

There is IN1 General Industrial zoned land directly north and north east of the alignment in St Marys, IN2, Light Industrial zoned land directly west of the alignment in Werrington and B6 Enterprise Corridor directly east of the alignment along the Great Western Highway.

2.2 Current and surrounding land use

In addition to the St Marys industrial land to the north and northeast of the project alignment, the potentially contaminating land uses located within 1 km of the project alignment are listed Table 2-1.

Table 2-1 Current surrounding land uses – project alignment

Site	Location	Proximity to the project alignment
Caltex service station	574 Great Western Hwy, Claremont Meadows	180 metres east
7 Eleven service station	577 Great Western Hwy, Werrington	180 metres east
BP service station	569 Great Western Hwy, Werrington	300 metres east
BP service station/Jack Simpson Fuel Supplies	3 Werrington Rd, Werrington	300 metres east
Medicare Automotive	547 Great Western Highway	550 metres east
Barro Timber and Joinery timber yard	579 Great Western Hwy, Werrington	100 metres east
Closed Gipps Street Landfill	Gipps Street	Directly adjacent to the east

2.3 Historical aerial review

Review of historical aerial photographs showed mainly agricultural, recreational and residential land use along the project alignment between 1943 and the present date with the exception of:

- St Marys industrial area located directly to the north east, comprising large industrial factories and rail sidings, increasing in density and development through the 1970s and 1980s
- a timber yard, two service stations, a wrecker's yard, depots/plant yards and other commercial buildings were located to the east of the alignment along the Great Western Highway from 1970 onwards
- the former Sydney Water depot was located 70 metres northwest of the project alignment from 1970 until after 2005
- filling within the now closed Gipps Street landfill directly east of the project alignment in Claremont Meadows was visible in the 1970 and 1980 aerial photographs. In the 1994 aerial photograph the landfill appeared mostly vegetated with grass with access tracks and a several small buildings sheds. By 2005 the landfill surface appeared to have changed since 1994 and there appeared to be a leachate treatment area in the northeast portion. Recent 2019 aerial photographs show

further alterations to the landfill surface, with reduced vegetation cover and an area in the centre of the landfill with a cluster of small stockpiles.

With the exception of the Gipps Street Landfill there were no other areas of significant filling visible. There were small localised excavations present in the location of Blair Oval in St Marys above the project alignment in 1955 and stockpiles in the 1970s.

2.4 Historical business records

With the exception of the listings within St Marys construction footprint (see Section 1.4), there were no historical business records with the exception of one record for Wilson Roland N at Great Western Highway, Werrington under 'carpets, linoleums & vinyls – manufacturers and/or wholesalers' in 1980. The street number was unlisted so the exact location is unknown.

2.5 NSW EPA records

2.5.1 Sites notified to the NSW EPA under the CLM Act

The sites listed in Section 1.7 in St Marys construction footprint were located north east of the project alignment and likely hydraulically down-gradient. The notified site at St Marys Shopping Village is located 500 metres south and potentially hydraulically upgradient of the project alignment.

The closed Gipps Street Landfill which is located/and adjacent to the project alignment was listed as notified to the NSW EPA. The NSW EPA assessed the site as not requiring regulation.

2.5.2 Sites currently licensed under the POEO Act

With the exception of those listed in Section 1.7 in the St Marys area, there were no other licensed sites within 1 km of the project alignment.

2.5.3 Sites formerly licensed under the POEO Act

With the exception of those listed in Section 1.7 in the St Marys area, there were no other formerly licensed sites within 1 km of the project alignment.

2.5.4 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the project alignment.

2.6 Previous reports

2.6.1 Gipps Street landfill

Refer to Section 3.9 for a summary of the findings of previous investigations undertaken at the closed Gipps Street Landfill.

2.6.2 project soil and groundwater investigations

The Golder and Douglas (2019b) investigations included sampling and analysis of soil of two boreholes (SMGW-BH-A011S and SMGW-BH-A019) in Werrington and Claremont Meadows. Samples were analysed for TRH/TPH, BTEXN, PAHs, heavy metals, OCPs, OPPs, PCBs, VOCs, phenols, PFAS, phenols, and asbestos. The results were screened against the ASC NEPM (2013) and PFAS National Environment Management Plan 2.0 (NEMP) (HEPA, 2020) human health and ecological investigation levels for commercial and industrial land use. The locations and results are summarised in Table 2-2 and locations shown on Figure A1 in Appendix A.

Table 2-2 Summary of soil results in Werrington and Claremont Meadows (Golder and Douglas Partners, 2019a)

Borehole ID	Location	Summary of results
SMGW-BH-A011S	Adjacent to the project alignment in the Kingsway Reserve, on the west bank of South Creek in Werrington	<ul style="list-style-type: none"> • Fill comprising topsoil to 0.3 metres depth • No odours or staining noted in borelogs • No elevated VOC concentrations in soil samples screened in the field by photoionisation detector (PID) • All analytical results less than the adopted screening criteria.
SMGW-BH-A019	South west corner of Gipps Street landfill, around 100 metres east of the project alignment	<ul style="list-style-type: none"> • Fill was encountered to 1.5 metres depth with trace glass fragments • No odours or staining noted in borelogs • No elevated VOC concentrations in soil samples screened in the field by PID • All analytical results less than the adopted screening criteria.

The boreholes were converted into groundwater monitoring wells and analysed for electrical conductivity, total dissolved solids, pH, major ions, heavy metals (As, Ba, B, Co, Cd, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Zn), TRH/TPH, BTEXN, PAHs, VOCs, SVOCs, nutrients and PFAS. The results are summarised in Table 2-3.

Table 2-3 Summary of groundwater results in Werrington and Claremont Meadows (Golder and Douglas Partners, 2019a)

Result	SMGW-BH-A011S	SMGW-BH-A019
SWL (m bTOC)	1.75	4.64
SWL (m AHD)	18.25	37.36
Screen interval (m bgl)	1.8 to 5.3	28 to 34
Total depth (m bTOC)	4.9	34
ORP (mV)	-86	-59.2
Temperature (°C)	16.2	19.1
Electrical conductivity (µS/cm)	2590	16150
pH	6.42	13.07
Exceedances of criteria	<ul style="list-style-type: none"> • Total nitrogen: 1.1 mg/L (ANZG) • Total phosphorus: 0.68 mg/L (ANZG) • Dissolved cobalt: 149 µg/L (ANZG) • Dissolved manganese: 6410 µg/L (ANZG) • Sum of PFHxS and PFOS: 0.08 µg/L (Drinking water value of 0.08 µg/L - HEPA, 2020) • Perfluorooctanesulfonic acid (PFOS): 0.0021 (99% freshwater value 0.00023 µg/L of HEPA, 2020) 	<ul style="list-style-type: none"> • Total nitrogen: 9.2 mg/L (ANZG) • Total phosphorus: 0.08 mg/L (ANZG) • Dissolved aluminium: 240 µg/L (ANZG) • Dissolved selenium: 10 µg/L (ANZG)

Note: ANZG - most conservative criteria adopted

2.6.3 Preliminary CSM

Table 2-4 presents the preliminary CSM for the off-airport project alignment based on the findings of the desktop review and the project construction and operation. The CSM lists the key project construction and operation components, areas of concern, sources and CoPC, exposure pathways and receptors and risk ranking. The potential sources are shown on Figure A1 to A4 in Appendix A.

Table 2-4 Preliminary CSM – St Marys to Orchard Hills tunnel

Construction and operation	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Construction: Tunnel boring, dewatering, spoil transport and disposal. Operation: Undrained tunnel	North end of Queen Street St Marys	Source: St Marys industrial area, Queen Street dry cleaners CoPC: heavy metals, TRH, VOCs, nutrients, salinity	<ul style="list-style-type: none"> Groundwater extraction/dewatering and discharge Direct contact, inhalation, incidental ingestion 	<ul style="list-style-type: none"> South Creek and Claremont Creek¹ Construction workers Future commercial and intrusive maintenance workers 	Yes (during construction only)	C3/L2 Medium ^{3&4}
	Werrington at South Creek	Source: PFAS detected in groundwater in alluvium aquifer (unknown source) CoPC: PFAS			No ²	
	Werrington at Great Western Highway	Source: Past and current commercial/industrial businesses service stations, wreckers, bus depot, timber yard CoPC: heavy metals, TRH, nutrients, salinity			No	
	Claremont Meadows - Gipps Street closed landfill	Source: Landfill leachate from closed Gipps Street Landfill CoPC: Heavy metals, PFAS Ammonia, TRH, BTEX, PAHs, OCPs, VHCs, PFAS, dissolved methane				

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact) 2. Unlikely to be at concentrations that presents human health risk construction workers based on the depth of the tunnel and potential sources 3. Groundwater treatment to be undertaken prior to discharge. 4. PFAS concentrations likely to be lower at depth in bedrock.

3 Claremont Meadows services facility and indicative construction power route corridor

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the Claremont Meadows services facility and the indicative construction power route corridor.

3.1 Construction site description

The construction sites are described in Table 3-1 and shown on Figure A3 to A5 in Appendix A.

Table 3-1 Site description – Claremont meadows services facility construction footprint and indicative construction power route corridor

Item	Description		
Location	Claremont Meadows		
LGA	Penrith City Council		
Area	Claremont Meadows services facility: 5 hectares Claremont Meadows construction power route corridor: 9 hectares		
Claremont Meadows services facility construction footprint	Address	Lot and DP	Current land use
	1-17 Gipps Street, Claremont Meadows	Lot 2 DP771697	Vacant
	19 Gipps Street, Claremont Meadows	Lot 777 DP263543	Vacant
	31 Gipps Street, Claremont Meadows	Lot 781 DP263543	Vacant
	1 Great Western Highway, Claremont Meadows	Part Lot 1 DP771697	Vacant
	Gipps Street, Claremont Meadows	Part Gipps Street Road Reserve	Road reserve
Claremont Meadows indicative construction power route corridor	Sunflower Drive Road, Nullaga Way Road, Gagoor Close, Geewan Place, Gipps Street, Caddens Road, Kent Road	Road reserve	Road reserve
	34-102 Gipps Street	Part Lot 11 DP 1194036	Closed landfill
	459 Luddenham Road	Lot 4329 DP835330 Part Lot 4 DP813516	Road reserve
	277-291 Claremont Road	Part Lot 4 DP813516	Road reserve
	47-49 Myrtle Road	Part 4328 DP825576	Road reserve
	Gipps Street	Part Lot 12 DP1194036, Part Lot 1 DP270622	Road reserve
	112-132 Gipps Street	Part Lot 127 DP1131554	Road reserve
	104-110 Gipps Street	Lot 17 DP1088875	Road reserve
	134-142 Gipps Street	Lot 18 DP 1165729	Road reserve

Item	Description		
	Caddens Road	Lot 43 DP1195683, Part Caddens Road Reserve	Road reserve
	332 Caddens Road	Lot 42 DP1195683	Road reserve
	Kent Road	Kent Road Reserve	Road reserve
	342 Caddens Road	Lot 16 DP27107	Road reserve

3.2 Zoning

The zoning of the Claremont Meadows services facility and indicative construction power route corridor are listed in Table 3-2.

Table 3-2 Zoning – Claremont meadows services facility construction footprint and indicative construction power route corridor

Site	Zoning
Claremont Meadows services facility	<ul style="list-style-type: none"> • B6 Enterprise Corridor • R3 Medium Density Residential
Claremont Meadows indicative construction power route corridor	<ul style="list-style-type: none"> • SP2 Infrastructure • R2 Low density Residential • RE1 Public Recreation

3.3 Current surrounding land use

The following potentially contaminating land uses were located within 1 km of the Claremont Meadows services facility and indicative construction power route corridor are listed Table 3-3.

Table 3-3 Current surrounding land uses – Claremont meadows services facility construction footprint and indicative construction power route corridor

Site	Location	Proximity to construction footprint
Caltex service station	574 Great Western Hwy, Claremont Meadows	100 metres east of services facility
7 Eleven service station	577 Great Western Hwy, Werrington	100 metres north east of services facility
BP service station	569 Great Western Hwy, Werrington	200 metres east of services facility
BP service station/Jack Simpson Fuel Supplies	3 Werrington Rd, Werrington	200 metres east of services facility
Medicare Automotive	547 Great Western Highway	480 metres east of services facility
Barro Timber and Joinery timber yard	579 Great Western Hwy, Werrington	50 metres north of services facility and down-topographic gradient
Closed Gipps Street Landfill	Gipps Street	<p>20 metres south and topographically up-gradient of services facility</p> <p>Within and directly adjacent to the construction power route corridor construction site</p>

3.4 Historical aerial review

The findings of the historical aerial review are summarised in Table 3-4.

Table 3-4 Historical aerial review summary – Claremont meadows services facility construction footprint and indicative construction power route corridor

Construction site	Description
Claremont Meadows services facility	<p>The majority of the construction footprint appears to have been market gardens and then pastured land from 1955 until present day with the exception of:</p> <ul style="list-style-type: none"> • A large shed or commercial building with two access driveways connecting to the Great Western Highway in the 1970s and 1980s at the northern end of the construction footprint • Four houses and associated outbuildings/sheds previously located along the eastern boundary of the construction footprint. Three were present from prior to the 1955 and demolished in the 1980s or 1990s and one house was present in the 1980s and 1990s and has since been demolished • A farm shed was present in the central portion between the 1950s and 1980s • An area (~500 m²) of stockpiles were present in the central portion of the construction footprint in the 1970s • Construction compound for road construction in 2019 in the northern half of the ISF. The construction footprint was being used for stockpiling, equipment laydown and sheds. There were two small water quality/sedimentation ponds. The southern half of the ISF remained undeveloped pastured land.
Clermont Meadows indicative construction power route	<p>The majority of the CPRC was road, market gardens, pastured fields and poultry farms until redevelopment of Claremont Meadows residential subdivision on the west side of Gipps Street between 1994 and 2005. The Claremont Meadows substation on the corner of Nullaga Way and Sunflower Drive was constructed between 2005 and 2019. The residential subdivision on the east side of Gipps Street was constructed by 2019. The M4 motorway was under construction in 1970 and the on and off ramps to the M4 motorway from Kent Road was constructed in 2019. The northeast part of the CPRC was within the boundary of the closed Gipps Street landfill.</p>

3.5 Historical business records

There were no historical business listings in the Claremont Meadows services facility construction footprint and indicative construction power route corridor.

3.6 Historical titles

Historical titles were obtained for 1-17 Gipps Street, Claremont Meadows (Lot 2 DP771697) which comprises most of the Claremont Meadows facility construction footprint. The historical titles indicate that the property was:

- Owned by private owners from 1905 to 1974 when purchased by The Housing Commission of NSW and then transferred to The Land Commission of New South Wales
- The occupations of the private owners included labourer, market gardener and a greengrocer, with a lease to a shop proprietor between 1967 and 1968
- Purchased by Roads and Maritime Services (now Transport for NSW) in 2012.

Based on the historical title information the commercial building in the northern part of the construction footprint was likely a 'green grocers' shop.

3.7 Section 10.7 certificates

There were no Planning Certificates obtained for the Claremont Meadows services facility and indicative construction power route corridor.

3.8 NSW EPA records

3.8.1 Sites regulated under the CLM Act 1997

There were no regulated sites within 1 kilometre (km) of the Claremont Meadows services facility and indicative construction power route corridor.

3.8.2 Sites notified to the NSW EPA under the CLM Act

The sites listed in Section 1.7 in St Marys were located north east of the Claremont Meadows services facility and Claremont Meadows services facility and likely hydraulically down-gradient.

The closed Gipps Street Landfill which is located directly south of Claremont Meadows services facility and within part of the indicative construction power route corridor was notified to the NSW EPA. The NSW EPA assessed the closed Gipps Street Landfill as not requiring regulation.

3.8.3 Sites currently licensed under the POEO Act

There were no licensed sites within 1 km of the Claremont Meadows services facility and indicative construction power route corridor.

3.8.4 Sites formerly licensed under the POEO Act

There were no other formerly licensed sites within 1 km of the Claremont Meadows services facility and construction power route corridor.

3.8.5 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the Claremont Meadows services facility and indicative construction power route corridor.

3.9 Previous reports

The following available previous reports were reviewed for the Claremont Meadows services facility and indicative construction power route corridor:

- Woodward Clyde Pty Ltd, 1999. Gipps Street Landfill Rehabilitation Proposal Werrington, Environmental Impact Statement. 22 December.
- Environ, 2007. Interim Advice No.1 Gipps Street Landfill Rehabilitation for Penrith City Council. 28 March.
- Aurecon, 2012. Stage 1 Preliminary Site Investigation Report, Werrington Arterial Road Between M4 Motorway and the Great Western Highway, Claremont Meadows.
- Environmental Earth Sciences Pty Ltd (EES), 2016. Groundwater and Gas Monitoring at Gipps Street Landfill.
- EES, 2018. Landfill Gas Well Installation and Monitoring at the Former Gipps Street Landfill, Claremont Meadows, NSW. 1 March 2018. Version 1.
- Environ Douglas Partners, 2019a. Fill Validation Assessment, Gipps Street, Claremont Meadows, NSW. 5 April 2019.
- Douglas Partners, 2019a. Fill Validation Assessment, Gipps Street, Claremont Meadows, NSW. 5 April. Revision 2.
- Douglas Partners, 2019b. Environmental Management Plan for Remediation Works and Ongoing Environmental Management Requirements, Gipps Street. 10 April 2019. Draft.

3.9.1 Woodward Clyde 1999 - Gipps Street Landfill Environmental Impact Statement

An Environmental Impact Statement was prepared by Woodward Clyde (1999) for the rehabilitation of the closed Gipps Street Landfill and contained the following relevant information:

- the landfill was operated by Penrith Council from the 1950s to mid-1980s for the disposal of household and some industrial waste
- the landfill filling history was described as follows:
 - localised filling in the south east corner between 1947 and 1956
 - localised filling adjacent to South Creek in 1961, increasing in height to 1965
 - stripping of the western portion of the landfill for night cover material in 1965
 - south east corner remained for contractors for domestic disposal in trenches and eastern central area for public tipping
 - night soil disposal occurred in one area in 1972
 - total depth of trenches were over 8 metres deep
 - putrescible waste was disposed along the western and eastern boundaries of the landfill
 - industrial waste was mainly light industrial waste from the Dunheved area including aluminium dross, wastes from chemical and printing factories and panel beaters
 - burning of combustible components of the waste materials was carried out at the landfill
 - capping with 0.3 to 2 metres of clay
- rehabilitation works were proposed to make the site suitable for recreational land use and reduce ecological impacts to South Creek
- the proposed rehabilitation works included installation of a new capping layer, surface drainage system to reduce leachate generation, vent pipes for landfill gas, leachate extraction and treatment system, grass cover establishment and tree planting on perimeter embankments.

3.9.2 Environ 2007 – Gipps Street Landfill interim audit advice

The appointed NSW EPA accredited Site Auditor prepared an interim advice report on the rehabilitation works completed in 2006 for the closed Gipps Street Landfill. The letter included an evaluation of the remediation method, contamination migration potential and assessment of risk.

The report concluded that:

- landfill leachate containing high concentrations of ammonia, TOC, certain heavy metals and some organic compounds has impacted on the quality of water in South Creek and groundwater beneath and surrounding the landfill
- the impact of leachate on South Creek was most obvious during normal and low flow conditions and was indicated by elevated downstream concentrations of electrical conductivity and coliform
- low level detections of OCPs were widespread in leachate, groundwater and dam surface water (and soils surrounding the site) but none were detected in South Creek. These detections were assessed as more likely an impact caused by the agricultural land use of the area or treatment of roadside verges, not wastes buried within the landfill
- low concentrations of groundwater contamination were still present in the shale aquifer below the landfill and outside the landfill area, including offsite. Offsite migration of the existing low concentration contamination within the deep shale aquifer below the landfill may continue to occur at a slow rate, although contaminant levels were expected to decrease with time.

Table 3-5 summarises the leachate, groundwater and surface water analytical results from monitoring undertaken between 1987 and 1996.

The report concluded the following regarding landfill gas:

- monitoring between 1987 and 1996 indicated a wide range of methane concentrations within the landfill, up to 90% methane. The later monitoring in 1996 found a maximum of only 34% methane
- due to the age of the landfill, gas production rates were considered likely to be past their peak concentrations and in decline
- trace concentrations of vapour phase VOCs were detected within perimeter monitoring wells by a semi-quantitative field screening method
- six of the seven locations along the western boundary of the site in 1996 reported methane of 0.9% or lower during the same monitoring round, below the subsurface boundary action level of 1.25%. Further investigation of off-site conditions west of Gipps Street found negligible methane detections during longer term monitoring
- the Auditor was satisfied that the landfill gas monitoring undertaken during and before the rehabilitation works was adequate to assess the need for landfill gas management within the rehabilitation design.

Table 3-5 Summary of leachate, groundwater and surface water concentrations for the closed Gipps Street Landfill (1986-1996) as reported in Environ (2007) site audit report

Contaminant	Leachate	Groundwater	Surface Water (South Creek)
pH	7 to 8	3.3 to 7	-
Ammonia	Generally, 10 to 120 mg/L with a maximum of 190 mg/L	Ranged from 0.4 to 1.2 mg/L	One downstream sample marginally exceeded the ANZECC guidelines with a concentration of 1.01 mg/L
TOC	Generally, 40 to 140 mg/L	Generally, less than 50 mg/L	-
Zinc	Generally, up to 0.3 mg/L but up to 44 mg/L exceeding ANZECC 2000 guideline value of 0.008 mg/L	Zinc was generally between 0.5 and 0.83 mg/L exceeding ANZECC 2000 guideline value of 0.008 mg/L	Exceeded ANZECC upstream and downstream
Aluminium, copper, lead, iron, nickel	Exceeded the ANZECC 2000 guidelines	Exceeded the ANZECC 2000 guidelines in the majority of groundwater samples, similar concentrations to leachate	Copper and iron exceeded the ANZECC 2000 guidelines in the two separate rounds upstream and downstream
Cadmium, chromium, manganese	Limited number of elevated concentrations exceeding ANZECC 2000 guidelines	Manganese exceeded the ANZECC 2000 guidelines in half the samples and were higher concentrations than in leachate. Limited number of cadmium and chromium samples exceeding ANZECC 2000 guidelines, with lower concentrations than leachate	-

Contaminant	Leachate	Groundwater	Surface Water (South Creek)
Arsenic and mercury	All results less than the laboratory LOR	One detection of arsenic in groundwater below the ANZECC 2000 guidelines. All mercury results less than the laboratory LOR	One detection of mercury above the ANZECC 200 guidelines for mercury upstream
TPH C6-C9 fraction	Maximum of 0.069 mg/L	Detected in a limited number of groundwater samples	All results less than the laboratory LOR
TPH >C10 fractions	Maximum of 52 mg/L	Detected in a limited number of groundwater samples, maximum 10.6 mg/L	All results less than the laboratory LOR
PAHs	Maximum of 0.077 mg/L	Detected in a limited number of groundwater samples, maximum of 0.0052 mg/L	All results less than the laboratory LOR
OCP	Maximum of 0.0012 mg/L	Detected in a limited number of groundwater samples, 0.0003 to 0.0009 mg/L	All results less than the laboratory LOR
PCB Arochlor 1221	Detected at 4 µg/L exceeding the ANZECC 200 guideline of 1 µg/L	All results less than the laboratory LOR	All results less than the laboratory LOR
3-methylphenol	Detected at 4 µg/L, well below the USEPA Region IX tap water criteria of 1800 µg/L	All results less than the laboratory LOR	All results less than the laboratory LOR
1,1,2,2 tetrachloroethane	All results less than the laboratory LOR	Detected in two groundwater samples, maximum of 0.002 mg/L	All results less than the laboratory LOR
Phenol	All results less than the laboratory LOR	Detected in one well at a maximum concentration of 0.002 mg/L	All results less than the laboratory LOR

3.9.3 EES 2017 - Groundwater and Gas Monitoring at Gipps Street Landfill

Environmental Earth Sciences NSW undertook a leachate and landfill gas assessment of the closed Gipps Street Landfill. The investigation comprised sampling of groundwater and monitoring of landfill gas from six monitoring bores and sampling of one groundwater sump during four events in 2016. All monitoring bores locations were screened within landfill.

The following leachate results were reported:

- inferred groundwater flow direction was to the northeast towards South Creek
- pH ranged between 3.92 and 7
- ammonia ranged from 0.01 to 63 mg/L
- total kjeldahl nitrogen (TKN) ranged from 0.3 to 69 mg/L

- electrical conductivity ranged between 4450 and 31000 uS/cm
- biological oxygen demand ranged from <2 to 210 mg/L
- nitrate ranged from 0.01 to 93 mg/L
- sulfate ranged from 5 to 885 mg/L.

The following landfill gas concentrations were reported:

- methane ranged from 0 to 70.8%
- carbon dioxide from 0.3 to 13.4%
- carbon monoxide from 0 to 5 ppm
- hydrogen sulphide from 0 to 3 ppm
- gas flow rate from 0.1 to 4.4 L/hr.

The modified Wilson & Card classification referenced in the NSW EPA (2012) *Hazardous Ground Gas Guidelines* was used to calculate the gas screening value (GSV) per monitoring well location. ESS calculated and concluded a “low risk” to “moderate risk” and based on a maximum GSV calculated of 2.3. It is noted that the Wilson and Card classification method states that the GSV is to be calculated by the sites ‘worst case scenario’, not per monitoring well. As such the GSV for the closed Gipps Street Landfill site should have been 3.1 L/hr (70.9/100 x 4.4) based on the data in the report. Based on this Gipps Street Landfill should have been assessed as “moderate risk”.

The report recommended installation of groundwater and landfill gas monitoring outside the landfill material around the boundary of the landfill to be able to assess the potential for off-site migration of landfill gases.

3.9.4 Douglas Partners 2019a – Gipps Street Landfill Fill Assessment

Douglas Partners undertook an assessment of the fill material in the capping material across the landfill. The objective was to assess whether the material was either VENM or suitable for the proposed land use. There was asbestos contamination identified in the surface soils. The investigation didn't include groundwater or landfill gas assessment.

3.9.5 EES 2018 – Landfill Gas Well Installation and Monitoring at the Former Gipps Street Landfill, Claremont Meadows, NSW

EES was engaged by Penrith City Council to undertake a landfill gas (LFG) investigation to ‘assess the potential for LFG to migrate offsite and as a result potentially present a risk to nearby sensitive receptors’. The scope comprised:

- the installation of a total of nine LFG monitoring wells around the perimeter of the landfill
- monitoring of new (GAS1 to GAS9) and existing six existing wells (BH01 to BH06) on a quarterly basis between March 2017 and February 2018 for LFG (methane, carbon dioxide, carbon monoxide, hydrogen sulfide, oxygen), barometric pressure and flow rate
- monitoring of off-site service pits and drains in a portion of the south west boundary at Gipps Street and Fowler Street.

It was noted in the report that the works were not intended to be subject to a site audit and did not include 50 metre well spacing as recommended in the NSW EPA (2016) *Environmental Guidelines: Solid Waste Landfill Guidelines*. The results indicated that:

- methane concentrations were greater than the NSW EPA (2016) threshold value of 1 % with the highest boundary concentration recorded as 6.9% at the Gipps Street boundary (GAS3) and Fowler Street boundary (GAS2)
- carbon dioxide concentrations were greater than NSW EPA (2016) threshold values of 1.5% above background concentrations with the highest boundary concentration of 16.5% at the Fowler Street boundary (GAS2)

- the maximum flow rate recorded was 1.6 L/hr (GAS4), maximum concentration of methane was 79.3% (GAS3) and carbon dioxide 34.9 % (BH5) giving a GSV for the monitoring period of 1.3 L/hr ($79.3/100 \times 1.6$) and a CS of 3 (moderate risk)
- recorded surface gas monitoring completed on site resulted in no detections of methane above the NSW EPA (2016) threshold of 500 ppm.

EES recommended that *'LFG monitoring continue at the site at a quarterly frequency to ensure the landfill cap, and surrounding lithology continue to mitigate risks associated with LFG. It is also recommended concurrence be obtained from the site auditor for any future monitoring works'*. Based on the information reviewed in the report there appears to be data gaps in the assessment of off-site gas risk, specifically:

- the off-site LFG monitoring well in Gipps Street (GAS7) was potentially screened below the depth of groundwater and may not be representative of LFG concentrations at the location
- there's no LFG data for off-site service pits in Gipps Street north of monitoring well GAS3
- the monitoring wells have not been placed at 50 metre intervals along the perimeter of the landfill
- seven of the nine LFG wells were all screened below 1.9 m bgs and therefore the potentially more permeable shallower soil and fill has not been assessed as a migration pathway.

3.9.6 Douglas Partners 2019b –Gipps Street Landfill RAP and EMP

Douglas Partners prepared an EMP to document remediation and validation procedures for asbestos contaminated surface soils and document ongoing management and operational procedures for use of the site for proposed recreational purposes. The report contained the following relevant information:

- the landfills leachate collection system comprises a 600 mm wide gravel filled trench excavated into shale bedrock around the perimeter of the site which collects leachate and pumps into the treatment cells and then wetland, ultimately discharging to sewer
- groundwater is present at depths between 3 and 10 metres below ground surface and expected to be in hydraulic connecting with surrounding regional groundwater
- the preferred remedial option for surface soils were removal of surface fragments and the excavation and disposal off-site of friable asbestos in soil and on-site capping and containment of ACM contaminated soil.

Douglas Partners considered based on the findings of previous monitoring reports for the site, landfill gas, surface water and groundwater at the site was not required to be subject to an ongoing monitoring regime.

3.9.7 Aurecon 2012 – Werrington Arterial Road Stage 1 PSI Report

Aurecon Australia Pty Ltd (Aurecon) prepared a Stage 1 PSI report for the Werrington Arterial Road project as part of the Review of Environmental Factors (REF). The construction footprint included parts of the construction footprint compromising of the ISF (Gipps Street and Kent Road) including part of the closed Gipps Street Landfill and the indicative construction power route corridor.

The Aurecon (2012) report included review of existing reports for four properties, including the Claremont Meadows services facility construction footprint and parts of the construction power route corridor. The findings for each of the four properties is summarised in Table 3-6. The results indicated that there were slightly elevated concentrations of zinc, chromium and copper in soils above the former provisional phytotoxicity-based investigation levels (superseded by amended NEPM 2013 ecological screening levels) and detectable concentrations of OCPs. The OCP concentrations were reportedly below the NEPM 1999 health investigation levels (HILs) for residential land use (superseded by amended NEPM in 2013).

The Aurecon (2012) report did not include reference to landfill gas assessment. A Stage 2 detailed site investigation (DSI) was listed as the mitigation measure for contaminated land in the REF. The Stage 2 DSI was stated to have comprised:

- inspection of private properties to identify sources of potential contamination

- review of Gipps Street landfill leachate control system and capping to ensure the proposal would not impact on the remediation measures at the closed landfill
- preparation of a Sampling, Analysis and Quality Plan (SAQP) for soil and groundwater sampling for heavy metals, OCP and OPP in former market garden properties and asbestos in sites where asbestos was identified during detailed design
- preparation of a contaminated land management plan based on the finding of the DSI for health and safety measures, rehabilitation and waste requirements and asbestos management plan for within the project footprint.

The Stage 2 DSI and contaminated land management plan was not available for review.

Table 3-6 Reports summarised in Aurecon 2012 Stage 1 PSI for Werrington Arterial Road project

Property	Report	Findings summarised in Aurecon 2012
Lots 1 & 2 DP 771697 and Lots 777 & 81 DP 263543 (ISF)	JBS Environmental (2011) Detailed Contamination Assessment Lots 1 & 2 DP 771697 and Lots 777 & 81 DP 263543 Gipps Street Claremont Meadows, NSW	<ul style="list-style-type: none"> • <i>'Limited remediation works have occurred on site with the removal of the partially exposed fibre cement pipe. Additionally, a small amount of asbestos containing material (ACM) fragments were 'emu picked' from the south eastern portion of the site. (No validation soil samples were collected as the remediation works were abandoned)'</i> • <i>'ACM was identified (as bonded fragments) in the south east, east and north portions of the site (most likely associated with the demolition of former sheds and residences)'</i> • <i>'Within the remaining soil there were no concentrations of metals, TPH/BTEX, PAH, OCP, PCBs, E.coli, faecal coliforms or asbestos fibres. Chromium was detected above the provisional phytotoxicity-based investigation levels'</i> • <i>'Zinc and cadmium were detected in groundwater samples however these are considered to be representative of background regional concentrations'</i> • <i>'chromium was detected above the provisional phytotoxicity-based investigation levels each of the seven natural and 26 fill samples, however the report did not consider this to pose a contamination issue based on the limitations of the criteria, the low potential for bioavailability due to the clay content of the soil, and the healthy vegetation identified across the site'</i> • The report recommended that <i>'Lot 1 is considered suitable for road use, Lot 777 and 781 suitable for residential use and Lot 2 suitable if ACM is removed and validated'</i>

Property	Report	Findings summarised in Aurecon 2012
<p>Lot 18 DP 1165729</p> <p>132-142 Gipps Street (now Gipps Street road reserve within ISF)</p>	<p>Geotechnique Pty Ltd (1987) Residential Development, Lot 5 in DP 27233, Corner of Gipps Street and Caddens Road, Claremont Meadows, Additional Contamination Investigation</p>	<ul style="list-style-type: none"> ‘Heavy metals were found to be present however concentrations were within the ANZECC/NHMRC environmental investigations limits with the exception of 2 borehole locations where zinc was found’ ‘Concentration of zinc was found to be eight times greater than the acceptable provisional phytotoxicity bases investigation levels of 20 milligrams per kilogram (mg/kg). Therefor [SIC] remediation was recommended in the form of excavation of contaminated soil or vertical and lateral mixing of the soils to a depth of approximately 400 mm bgs to reduce concentration’s’ ‘OCP were not detected in any samples’.
<p>Lot 127 DP 1131554</p> <p>112-132 Gipps Street (now Gipps Street within ISF)</p>	<p>GeoEnviro Consultancy Pty Ltd (2005) Contamination, Salinity and Soil Absorption Assessment Stage 2, Part Lots 2, 3 & 4 DP 27233 Gipps Street, Claremont Meadows</p>	<ul style="list-style-type: none"> ‘Laboratory analysis indicated heavy metals and pesticides to the present [SIC] however concentration levels were within the site criteria for residential development or below detection limits’ ‘A pile of earthfill was identified in the north east corner of the site. It was assessed to be chemically not contaminated. However pockets of rubbish including building material, possible containing asbestos, may exist’.
<p>Lot 1001 DP 1131997</p> <p>27 Kent Road (adjacent to western boundary of ISF at M4 motorway)</p>	<p>GeoEnviro Consultancy Pty Ltd, 2003, Preliminary Contamination Assessment, Proposed Residential Development Lot 103 DP 128821 Kent Road South Claremont Meadows, NSW</p>	<ul style="list-style-type: none"> ‘Copper concentrations where [sic] above ANZECC/NHMRC criteria but below the NSW EPA phytotoxicity criteria (4 locations)’ ‘Zinc concentrations were above the ANZECC/NHMRC and the NSW EPA phytotoxicity criteria. Chromium concentrations were above the ANZECC/NHMRC criteria (3 locations)’ ‘Deildrin and Endosulfan were the only OCP identified. The concentration of both was within the acceptable criteria’.

3.10 Site inspection

An inspection of publicly accessible areas of the Claremont Meadows services facility and indicative construction power route corridor was undertaken in August 2019. The following observations were made:

- road works on Gipps Street and Kent Road appeared complete as part of the RMS Werrington Arterial Road project and the associated construction compound within the services facility construction footprint appeared to be still in use with some soil stockpiles, site sheds, plant and equipment remaining
- several monitoring wells were observed along and within the boundary of the closed Gipps Street Landfill. No off-site monitoring wells were observed.

3.11 Preliminary CSM and risk ranking

Table 3-7 presents the preliminary CSM for the Claremont Meadows services facility and indicative construction power route corridor construction sites based on the findings of the desktop review and the project construction. Areas of medium and high risk are shown on Figure A3 to A4 in Appendix A.

Table 3-7 Preliminary CSM – Claremont meadows services facility construction footprint and indicative construction power route corridor

Construction site	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: Claremont Meadows services facility construction site Construction: Piling and shaft excavation at northern end of the site, temporary facilities across remainder of the site and a temporary water quality treatment plant. Operation: Services facility (northern end of the site) (undrained structure)	AEC 5: All	Source: Stockpiling of spoil from road construction and former use as laydown area and ACM in soils (impact underlaying to surface soils) CoPC: Heavy metals, TRH, BTEX, PAHs, OCPs, VOCs, asbestos	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers 	Yes	C2/L2 Medium
			Surface water runoff	<ul style="list-style-type: none"> South Creek and Claremont Creek¹ 	Yes	C2/L2 Medium
	AEC 6: Shaft and piling excavation area (impact from off-site source)	Source: Contaminated groundwater from landfill leachate Groundwater CoPC: Heavy metals, ammonia, TRH, PAHs, OCPs, VHCs, PFAS, phenol, dissolved methane	Groundwater extraction	<ul style="list-style-type: none"> South Creek and Claremont Creek¹ 	Yes	C3/L3 High
			Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers 	Yes	C3/L2 Medium ¹
	AEC 7: Southern boundary (where trenching or underground service pits accessed)	Source: Off-site landfill gas CoPC: Landfill gases (methane, carbon dioxide, carbon monoxide, hydrogen sulphide)	Inhalation, asphyxiation and explosive risk within trenches and pits	<ul style="list-style-type: none"> Intrusive maintenance workers 	Yes	C3/L3 High

Construction site	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: Claremont Meadows indicative construction power route corridor Construction: Trenching for power connection between substation in Nullaga Way, under bore under M4 Motorway and small site office and amenities area. Operation: No operational component.	AEC 8: Gipps Street closed landfill	Source: Closed Gipps Street Landfill CoPC: Landfill gases (methane, carbon dioxide, carbon monoxide, hydrogen sulphide) Soil/landfill waste and leachate: Heavy metals, TRH, SVOCs, VOCs, PCBs, PFAS*, ammonia, nutrients, asbestos, biological hazards *Not previously investigated as secondary source of PFAS	Inhalation, asphyxiation and explosive risk within trenches and pits	<ul style="list-style-type: none"> Construction workers Intrusive maintenance workers Off-site human receptors 	Yes	C3/L3 High
			Creation of preferential pathway from landfill to off-site receptors via trench construction			
			Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers 	Yes	C3/L3 High
	AEC 9: Myrtle Road Reserve	Source: Potential uncontrolled filling in Myrtle Road Reserve between Nullaga Way and Myrtle Road CoPC: Heavy metals, TRH, BTEX, PAHs, PCBs, OCPs and asbestos	Surface water runoff (leachate generation during construction)	<ul style="list-style-type: none"> South Creek¹ 	Yes	C3/L3 High
			Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers 	Yes	C3/L2 Medium
	AEC 10: Gipps Street (south bound) north side of Caddins Road intersection	Source: Formerly demolished pre 1970s house - hazardous building materials CoPC: Asbestos and lead paint	Surface water runoff	<ul style="list-style-type: none"> Claremont Creek¹ 	Yes	C3/L2 Medium
			Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers 	Yes	C2/L2 Medium

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact)

4 Orchard Hills construction site

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the Orchard Hills construction site.

4.1 Construction site description

The Orchard Hills construction site is described in Table 4-1 and shown on Figure A5 to A8.

Table 4-1 Site description – Orchard Hills

Item	Description		
Location	Orchard Hills		
LGA	Penrith City Council		
Orchard Hills construction footprint	Address	Lot and DP	Land use
	52-56 Kent Road	Lot 10 DP1195473	Residential and rural
	58-62 Kent Road	Lot 1 DP576160	Residential and rural
	64 Kent Road	Lot 104 DP128821	Residential and rural
	70-74 Kent Road	Lot 43 DP29388	Vacant
	76-80 Kent Road	Lot 44 DP29388	Residential and rural
	82-86 Kent Road	Part Lot 45 DP29388	Residential and rural
	88-92 Kent Road	Part Lot 46 DP29388	Residential and rural
	94-98 Kent Road	Part Lot 47 DP29388	Residential and rural
	100-104 Kent Road	Part Lot 48 DP29388	Residential and rural
	106-112 Kent Road	Lot 49 DP29388	Residential and rural
	114-122 Kent Road	Lot 50 DP29388	Residential and rural
	Kent Road	Kent Road Reserve	Road reserve
	17-25 Lansdowne Road	Part Lot 97 DP29388	Rural
	34-38 Lansdowne Road	Lot 81 DP29388	Residential and rural
	28-32 Lansdowne Road	Lot 82 DP29388	Residential and rural
	22-26 Lansdowne Road	Part Lot 83 DP29388	Residential and rural

4.2 Zoning

The Orchard Hills construction footprint is zoned 'RU4 – Primary Production Small Lots'.

4.3 Current and surrounding land use

The lots within the Orchard Hills construction footprint comprise rural properties, most contain residential buildings with sheds and paddocks and appear to be used primarily as hobby farms. The lots that appear to contain small commercial businesses were:

- 52-56 Kent Road (Lot 10 DP1195473): potential workshop and storage area in northwest corner of the lot
- 82-86 Kent Road (Part Lot 45 DP29388): potential workshop east of the residential dwelling

- 100-104 Kent Road (Part Lot 48 DP29388): potential workshop in the western end of the lot
- 106-112 Kent Road (Lot 49 DP29388): potential workshop along northern boundary near the centre of the lot and stockpile and laydown area in the eastern third of the lot
- 22-26 Lansdowne Road (Part Lot 83 DP29388): potential workshop, laydown and stockpile area in southern half of the lot.

The surrounding land uses within 1 km of the Orchard Hills construction footprint include:

- North: M4 Western Motorway to the north followed by residential subdivisions of Claremont Meadows and small rural lots
- South: a riparian zone and tributary of Blaxland Creek followed by rural lots and large residential lots
- East: rural lots and Samuel Marsden Road followed by Samuel Marsden Reserve and sports fields and then South Wianamatta Creek 650 metres to the east of the construction footprint
- West: rural lots including market gardens.

4.4 Historical aerial review

In the 1955 historical aerial photograph, all of the Orchard Hills construction footprint appeared to be grazing land with no buildings. There was remnant forest and three dams just south of the current location of the M4 motorway. The observations for the individual properties comprising the Orchard Hills construction site are in Table 4-2.

Table 4-2 Historical aerial review summary - Orchard Hills

Construction site	Description
54 Kent Road	Was developed with two houses and sheds by 1980. The land appeared to be cultivated in 1970, 1980 and 1994 and one of the historical dams was filled in. Wastes were visible on the ground surface in the eastern half of the properties from 1994 to recent 2019 aerial photographs.
64 Kent Road	Was developed between 1980 and 1994 and appeared to be previously cultivated prior to 1994. In 2019 the majority of the property appeared unused.
70-74 Kent Road	Appears to have never been developed with some areas of land clearing.
76-80 Kent Road	Was developed between 1994 and 2005 with a house and shed/workshop and the remainder of the land used for pasture.
82-86 Kent Road	Was developed between 1980 and 1994 with a house and a rear workshop with earth moving equipment. In 1994 there appeared to be a laydown area along the northern boundary of the property about 90 metres from the road. Land clearing appeared to have occurred in parts of the property by 2005.
88-92 Kent Road	Was developed with a house and paddock between 1994 and 2005. The remainder of the property appeared unused.
94-98 Kent Road	Contained one of the first houses in Kent Road, several large farm sheds and a potential cattle dip by 1970. The sheds remain and there appears to be several defoliated or dead trees around the sheds in 2019 aerial photographs.
100-104 Kent Road	Contained a house and several small sheds by 1970. The small sheds were demolished and replaced by a large shed between 1994 and 2005. A dirt bike track appears to have been constructed on the property between 2005 and 2019.
106-112 Kent Road	Appears to have been developed between 1994 and 2005 with a house and two medium sized sheds/workshops. There appears to be stockpiles and unknown wastes/items stored across the eastern half of the property.

Construction site	Description
114-122 Kent Road	Appears to have been developed with several small houses and sheds between 1970 and 1980 and appears to have been used as horse paddocks. In the 2019 aerial photograph there appears to be some unknown wastes amongst the trees in the north east corner of the property.
17-25 Lansdown Road	Appeared to be remnant bushland until 1994 when it became cultivated. Between 2005 and the present the land appeared to be mainly undeveloped pasture land with some minor undistinguishable items.
34-38 Lansdowne Road	Appeared to be developed with a house and some small sheds between 1970 and 1980. In 1994 a dam was under construction and two large sheds had been constructed.
28-32 Lansdowne Road	Appeared to be developed with a house and small shed between 1955 and 1970. Some small stockpiles were located at the rear of the property in the 2019 aerial photograph.
22-26 Lansdowne Road	A small shed was present on the eastern boundary in 1980 and 1994. A circular depression was located in the southeast corner of the property in 2005 which was since filled in. The southern and western boundaries were used as laydown area for unknown equipment/construction materials.

4.5 Historical business records

There were no historical business directory records within the Orchard Hills construction footprint.

4.6 Historical titles

Historical titles were obtained and reviewed for Lot 47 DP 29388 at 94-98 Kent Road. Copies of the historical titles search are included in Appendix E. Based on the historical titles it appears that the land comprising the Orchard Hills construction footprint construction site was owned by poultry farmers until purchase and subdivision into small rural lots by a company called Eastbourne Pty Ltd in the 1950s and 1960s. The lot owned by a private owner, with a listed occupation as a Labourer from 1967 to 2018 and then another private owner since 2018.

4.7 Section 10.7 certificates

There were no planning certificates obtained for the Orchard Hills construction footprint.

4.8 NSW EPA records

4.8.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 1 km of the Orchard Hills construction footprint.

4.8.2 Sites notified to the NSW EPA under the CLM Act

With the exception of the closed Gipps Street landfill, located 900 metres north, there were no NSW EPA regulated sites within 1 km of the Orchard Hills construction footprint.

4.8.3 Sites currently licensed under the POEO Act

There were no current licensed sites within 1 km of the Orchard Hills construction footprint.

4.8.4 Sites formerly licensed under the POEO Act

There were no formerly licensed sites within 1 km of the Orchard Hills construction footprint.

4.8.5 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the Orchard Hills construction footprint.

4.9 Previous reports

There were no reports were reviewed for the Orchard Hills construction footprint.

4.10 Site inspection

An inspection of publicly accessible areas of the construction footprint in Kent Road was undertaken in August 2019. The land uses were as identified in the desktop assessment.

4.11 Preliminary CSM and risk ranking

Table 4-3 presents the preliminary CSM for the construction sites Orchard Hills construction footprint based on the findings of the desktop review and the project construction. The areas of medium and high-risk ranking are shown on Figure A5 to A6.

Table 4-3 Preliminary CSM – Orchard Hills construction footprint

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: Orchard Hills Construction: Demolition, excavation of tunnel portal, earthworks for station and track sections, station precinct construction, footings and earthworks for temporary construction works, precinct construction and landscaping, temporary water treatment plant. Operation: Metro station, parking, open space and commercial precinct. Open cut railway (undrained)	AEC 11, 12 and 25: 52-62 and 106-112 Kent Road, Orchard Hills	Source: Potential workshops, AST (52-56 Kent Road), significant (>100 m ²) unlicensed waste disposal to land or storage to land and use of hazardous building materials CoPC: Heavy metals, TRH, SVOCs, VOCs, asbestos	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial workers and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C3/L3 High
			Surface water runoff	<ul style="list-style-type: none"> South-Wianamatta Creek1 	Yes	C2/L1 Low
			Groundwater dewatering	<ul style="list-style-type: none"> On-site construction workers Off-site sensitive human receptors (residential) South-Wianamatta Creek1 	Yes	C2/L1 Low
	AEC 15 and 28: 64 Kent Road, Orchard Hills, and 17-25, Lansdowne Road	Source: Use of herbicides and pesticides on former cultivated land and use of hazardous building materials CoPC: Heavy metals, pesticides/herbicides and asbestos	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial workers and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C2/L3 Medium
			Surface water runoff	<ul style="list-style-type: none"> South-Wianamatta Creek1 	Yes	C2/L1 Low

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
	AEC 13, 14, 16 to 19, 22-24, 26 to 30: 76-80, 82-86, 100-104, 114-122 Kent Road and 22-26, 34-38 Lansdown Road, Orchard Hills	Source: Potential workshops, minor waste disposal, use or storage of hazardous building materials CoPC: Heavy metals, TRH, SVOCs, VOCs, asbestos	Groundwater dewatering	<ul style="list-style-type: none"> On-site construction workers South-Wianamatta Creek1 	Yes	C2/L1 Low
			Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial workers and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C2/L2 Medium
			Surface water runoff	<ul style="list-style-type: none"> South-Wianamatta Creek1 	Yes	C2/L1 Low
			Groundwater dewatering	<ul style="list-style-type: none"> On-site construction workers Off-site sensitive human receptors (residential) South-Wianamatta Creek1 	Yes	C2/L1 Low
	AEC 20 and 21: 94-98 Kent Road, Orchard Hills	Source: Potential cattle or sheep dip, large shed with associated stressed vegetation and use of hazardous building materials	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial workers and intrusive maintenance workers Off-site sensitive human receptors (residential) 	Yes	C3/L3 High

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
		CoPC: Heavy metals, pesticides, asbestos		<ul style="list-style-type: none"> Ecological receptors 		
			Surface water runoff	<ul style="list-style-type: none"> South-Wianamatta Creek¹ 	Yes	C2/L1 Low
			Groundwater dewatering	<ul style="list-style-type: none"> On-site construction workers South-Wianamatta Creek¹ 	Yes	C2/L2 Medium
			Surface water runoff	<ul style="list-style-type: none"> South-Wianamatta Creek¹ 	Yes	C3/L3 High
			Surface water runoff	<ul style="list-style-type: none"> Dams and South Creek¹ 	Yes	C3/L3 High

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact) – South-Wianamatta Creek

5 Stabling and maintenance facility

5.1 Construction site description

The stabling and maintenance facility description is in Table 5-1 and shown on Figure A5 to A8.

Table 5-1 Site description – Stabling and maintenance facility

Item	Description		
Location	Orchard Hills		
LGA	Penrith City Council		
Area	Address	Lot and DP	Land use
Stabling and maintenance facility	2 Bordeaux Place	Part Lot 42 DP846098	Rural
	43A Luddenham Road	Part Lot A DP403454	Rural
	43A Luddenham Road	Part Lot 42 DP738126	Rural
	117-199 Luddenham Road	Part Lot 5 DP521268	Rural

5.2 Current and surrounding land use

The current land use within the stabling and maintenance facility comprises pastured paddocks, dams, a horse training track and a small shed at the northern boundary. The surrounding land uses within 1 km of the Orchard Hills construction footprint included:

- Patons Lane landfill directly on the western boundary
- Defence Establishment Orchard Hills directly to the south-west
- Low density residential subdivisions 180 metres east and 950 metres west

The remainder of the surrounding land use was agricultural and open space/recreational.

5.3 Zoning

The stabling and maintenance facility land is zoned:

- E2 – Environment Conservation
- RU2 – Rural Landscape
- RE1 – Public Recreation.

5.4 Historical aerial review

The findings of the historical aerial review of the stabling and maintenance facility is summarised below:

- The land appears to have been pastoral land on both sides of Blaxland Creek since 1955.
- There appeared to be potential farm tip waste burial areas in the southern portion of the construction footprint.
- There was no other visible infrastructure with the exception of fencing, dams, unsealed roads and horse training track.

5.5 Historical business records

There were no historical business directory records for the stabling and maintenance facility.

5.6 Historical titles

Historical titles were not obtained for properties within the stabling and maintenance facility.

5.7 Section 10.7 certificates

There were no planning certificates obtained for the properties within the stabling and maintenance facility.

5.8 NSW EPA records

5.8.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 1 km of the stabling and maintenance facility.

5.8.2 Sites notified to the NSW EPA under the CLM Act

There were no NSW EPA notified sites within 1 km of the stabling and maintenance facility.

5.8.3 Sites currently licensed under the POEO Act

The Patons Lane Landfill operated by SRC Operations Pty Ltd at 123-129 Patons Lane, Orchard Hills is licensed under EPL 20814 since March 2019 for waste disposal by application to land for site sourced special waste (asbestos) only and general solid waste (non-putrescible). The Patons Lane Landfill is located on the south west side of the stabling and maintenance facility and adjacent to the construction corridor.

Conditions of the licence include quarterly and annual surface water, groundwater and subsurface gas monitoring. The Patons Lane Landfill site is also licensed under EPL 21259 for recovery of general waste and storage of waste.

The Patons Lane Landfill started operating in 2019 and as such impacts to groundwater are not expected to pose a risk to construction. Over time there is a potential for landfill gas and leachate generation, that could impact on subsurface services or buildings close to the perimeter of the landfill, if mitigation measures at the landfill do not contain the gas.

5.8.4 Sites formerly licensed under the POEO Act

The Patons Lane Landfill was formerly licensed to Orchard Holdings (NSW) Pty Ltd under EPL 11706 for land based extractive activity until 2012. In 2007 Orchard Holdings (NSW) Pty Ltd was issued with a clean-up notice due to unlawfully receiving soil and demolition waste at the quarry. The waste was found to comprise soil and demolition materials containing asbestos. The asbestos waste is being placed within a containment cell within the Patons Lane Landfill. No stockpiling from the operations were observed within the construction footprint in historical aerial photographs.

5.8.5 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the stabling and maintenance facility construction footprint.

5.9 Previous reports

No previous reports were reviewed for the stabling and maintenance facility construction footprint.

5.10 Other historical information

No other information was reviewed for the stabling and maintenance facility construction footprint.

5.11 Site inspection

No inspection was undertaken.

5.12 Preliminary CSM and risk ranking

Table 5-2 presents the preliminary CSM for the stabling and maintenance facility on the findings of the desktop review and the project construction. The areas of medium and high-risk ranking are shown on Figure A8.

Table 5-2 Preliminary CSM – Stabling and maintenance facility

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: Stabling and maintenance facility Construction: Earthworks and structural works for the stabling and maintenance facility, at grade rail construction and laydown and storage	AEC 32-34: 2 Bordeaux Place, Orchard Hills	Source: Potential filled areas, areas of potential hazardous building material use CoPC: Heavy metals, TRH, PAH, OCP and asbestos	<ul style="list-style-type: none"> Direct contact, inhalation, incidental ingestion 	<ul style="list-style-type: none"> On-site construction workers Future commercial workers and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C2/L2 Medium
			<ul style="list-style-type: none"> Surface water runoff 	<ul style="list-style-type: none"> Blaxland Creek and South-Wianamatta Creek¹ 	Yes	C2/L1 Low
Operation: Stabling and maintenance facility	AEC 35: 43A Luddenham Road, Orchard Hills	Source: Potential farm waste burial area CoPC: Heavy metals, nutrients, TRH, SVOCs, VOCs, asbestos, biological hazards, aesthetic impacts	<ul style="list-style-type: none"> Direct contact, inhalation, incidental ingestion 	<ul style="list-style-type: none"> On-site construction workers Future commercial workers and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C3/L3 High
			<ul style="list-style-type: none"> Surface water runoff 	<ul style="list-style-type: none"> Blaxland Creek and South-Wianamatta Creek¹ 	Yes	C3/L3 High

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact)

6 Off-airport construction corridor

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the off-airport construction corridor between the Orchard Hills construction site and Western Sydney International.

6.1 Construction site description

The description of the off-airport construction corridor between the Orchard Hills construction footprint and Elizabeth Drive is in Table 6-1 and shown on Figure A7 to A13.

Table 6-1 Site description – Off-airport construction corridor

Item	Description		
Location	Orchard Hills, Luddenham and Badgerys Creek		
LGA	Penrith City Council		
Area	Address	Lot and DP	Land use
Orchard Hills construction footprint to Patons Lane, Orchard Hills	101 Sweetwater Grove	Lot 101 DP841269	Rural
	2 Bordeaux Place	Part Lot 42 DP846098	Rural
	43A Luddenham Road	Part Lot A DP403454	Rural
	43A Luddenham Road	Part Lot 42 DP738126	Rural
	2 Boudreaux Place	Part Lot 42 in DP846098	Rural
	31-39 Luddenham Road	Part Lot A in DP403554	Rural
	43A Luddenham Road	Part Lot 42 in DP 738126	Rural
	117-199 Luddenham Road	Part Lot 5 in DP521268	Rural
Patons Lane to Warragamba to Prospect Water Supply Pipelines, Orchard Hills	114-112 Luddenham Road	Part Lot 1 DP242968	Defence Establishment Orchard Hills
	221-227 Luddenham Road	Part Lot 1 DP 1099147	Rural
	1 Stockdale Road	Part Lot 1 DP629326	Defence Establishment Orchard Hills
Warragamba to Prospect Water Supply Pipelines easement, Luddenham	333B-335 Luddenham Road	Lot 5 DP229771 Part Lot 3 DP229771 Part Lot 6 DP229771 Part Lot A DP190403 Lot A DP341745 Lot A DP340321 Lot 1 DP229771	Warragamba pipeline easement
Warragamba to Prospect Water Supply Pipelines to Luddenham Road construction footprint, Luddenham	459 Luddenham Road	Part Lot 55 DP1139980	Kennett's Airfield

Item	Description		
Luddenham Road construction footprint to Badgerys Creek, Luddenham	546-640 Luddenham Road	Part Lot 12 DP594600	Rural
	642 Luddenham Road	Part Lot 11 DP594600	Rural
	654-658 Luddenham Road	Part Lot 29 DP209399	Rural
	Cosgroves Creek	Cosgroves Creek easement	Creek
Badgerys Creek to Elizabeth Drive, Badgerys Creek	1953-2109 Elizabeth Drive, Badgerys Creek	Part Lot 101 DP84215	Rural
	1793-1951 Elizabeth Drive	Part Lot 63 in DP 1087838	Rural (McGarvie Smith Farm)
	1793-1951 Elizabeth Drive	Part Lot 62 and 63 in DP 1087838	Rural (McGarvie Smith Farm)

6.2 Current and surrounding land use

The current land uses within the construction corridor are mainly:

- Rural comprising mainly grazier land with minor buildings, sheds, animal shelters/pens and dams
- A private airfield – Kennett's Airfield
- Defence Establishment Orchard Hills, a munitions storage facility and formerly known as RAAF Base Kingswood
- Warragamba to Prospect Water Supply Pipelines

The surrounding land uses comprise mainly rural land use with the exception of:

- Low density residential land use 150 metres west of the construction corridor (Bordeaux Place, Orchard Hills)
- Patons Lane landfill on the western boundary of the construction corridor in Orchard Hills
- Kemps Creek Resource Recovery Park landfill 400 to 750 metres east of the construction corridor in Badgerys Creek
- Blaxland Creek and South Wianamatta Creek
- Western Sydney International Stage 1 construction site directly south of the corridor.

6.3 Zoning

The zoning of the off-airport construction corridor between the Orchard Hills and Elizabeth Drive comprises:

- RU2 – Rural Landscape
- E2 – Environment Conservation
- SP2 Infrastructure – Water Supply System.

6.4 Historical aerial review

The findings of the historical aerial review for the off-airport construction corridor between the Orchard Hills construction footprint and Elizabeth Drive are summarised in Table 6-2.

Table 6-2 Historical aerial review summary - Orchard Hills footprint to Elizabeth Drive

Area	Description
Off-airport construction corridor between Blaxland Creek and Patons Lane	<ul style="list-style-type: none"> The land appears to have been pastoral land on both sides of Blaxland Creek since 1955. There was no visible infrastructure in the aerial photographs except for a small shed or unknown structure and a small (<400 m²) and shallow excavation on the west side of Blaxland Creek. The land appears to have been pastoral land since 1955, with no visible infrastructure with the exception of fencing and feedlots. The quarry to the east of the alignment, north of Patons Lane, appeared to have started between 1980 and 1994. The quarry appears to have started operating as a landfill, with two active landfill cells visible in 2019 aerial photographs.
Off-airport construction corridor between Patons Lane and Warragamba to Prospect Water Supply Pipelines	<ul style="list-style-type: none"> Pastured land with scattered trees and no buildings or structures visible other than fence lines in 1955. A small building was visible in the southeast corner of Lot 3 DP242968 between 1980 and 1994. A 20 by 20 metre fenced off area was visible within Lot 1 DP242968 in 2019 aerial photograph.
Off-airport construction corridor at Warragamba to Prospect Water Supply Pipelines	<ul style="list-style-type: none"> The pipelines appeared to be under construction in 1955 The surrounding land use to the north appeared mainly rural pastoral land with some localised areas of equipment laydown and stockpiling (purpose unknown).
Off-airport construction corridor in Luddenham	<ul style="list-style-type: none"> In 1955 all of the site appeared to be grazier land with no buildings. There are multiple residential properties, large sheds and dams within 500 m of the site. Cosgrove Creek transects the site. In 1970 all of the site appeared to be grazier land, one large shed is present in Badgerys Creek easement. There are multiple residential properties, large sheds and dams within 500 m of the site. Cosgrove Creek transects the site. In 1980 all of the site appeared to be grazier land, one large shed is present in Badgerys Creek easement. 546-640 Luddenham Road appears to have surface stockpile of unknown waste items. There are multiple residential properties, large sheds and dams within 500 m of the site. Cosgrove Creek transects the site. In 1994 all of the site appeared to be grazier land, there is a dam and one large shed present in Badgerys Creek easement. A potential stockpile with unknown waste items is also present in the Badgerys Creek easement. 546-640 Luddenham Road appears to have a surface stockpile of unknown waste items. There are multiple residential properties, large sheds and dams within 500 m of the site. Cosgrove Creek transects the site. In 2005 all of the site appeared to be grazier land, there is a dam and potential stockpiles with unknown waste items present in the Badgerys Creek easement and 546-640 Luddenham Road. There are multiple residential properties, large sheds and dams within 500 m of the site. Cosgrove Creek transects the site.

Area	Description
Off-airport construction corridor in Badgerys Creek	<ul style="list-style-type: none"> • In 1955 all of the site appears to be grazier land with multiple dams, large sheds and residential buildings. There are multiple residential properties, large sheds and dams within 500 m of the site. Elizabeth Drive runs along the southern boundary and transects the site. • In 1970 all of the site appears to be grazier land with sheep, multiple dams, large sheds and residential buildings. There are multiple residential properties, large sheds and dams within 500 m of the site. Elizabeth Drive runs along the southern boundary and transects the site. There is potentially a sheep spray race within 20 m of the west boundary of the site. Pit excavation 500 m north-east of site. • In 1980 all of the site appears to be grazier land with sheep, multiple dams, large sheds and residential buildings. There are multiple residential properties, large sheds and dams within 500 m of the site. Elizabeth Drive runs along the southern boundary and transects the site. There is potentially a sheep spray race within 20 m of the west boundary of the site. Pit excavation 500 m north-east of site. • In 1994 all of the site appears to be grazier land with sheep, multiple dams, large sheds and residential buildings. There are multiple residential properties, large sheds and dams within 500 m of the site. Elizabeth Drive runs along the southern boundary and transects the site. There is potentially a sheep spray race within 20 m of the west boundary of the site. Landfill 500 m north-east of site. • In 2005 all of the site appears to be grazier land with sheep, multiple dams, large sheds and residential buildings. There is potentially stockpiles with unknown waste contents between the two dams in centre of site. There are multiple residential properties, large sheds and dams within 500 m of the site. Elizabeth Drive runs along the southern boundary and transects the site. There is potentially a sheep spray race within 20 m of the west boundary of the site. Landfill 500 m north-east of site.

6.5 Historical business records

There were no historical business directory records within the off-airport construction corridor.

6.6 Historical titles

Historical titles were not obtained for the off-airport construction corridor.

6.7 Section 10.7 certificates

There were no planning certificates obtained for the off-airport construction corridor.

6.8 NSW EPA records

6.8.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 1 km of the off-airport construction corridor.

6.8.2 Sites notified to the NSW EPA under the CLM Act

There were no NSW EPA notified sites within 1 km of the off-airport construction.

6.8.3 Sites currently licensed under the POEO Act

As described in Section 5.8.3, the Patons Lane Landfill operated by SRC Operations Pty Ltd at 123-129 Patons Lane, Orchard Hills is (EPL 20814) and is located adjacent to the off-airport construction corridor just north of Patons Lane.

The Kemps Creek Resource Recovery Park and Landfill, at its closest point, is located around 300 metres east of the off-airport construction corridor, located on the opposite side of Badgerys Creek. The site is licensed to Suez Recycling & Recovery Pty Ltd under EPL 12889 for composting, recovery of general waste and waste storage (other types of waste) and EPL 4068 for non-thermal treatment of hazardous and other waste. The landfill is licensed to receive non-putrescible general solid waste, restricted solid waste, asbestos waste and waste tyres.

As part of its license conditions SUEZ is required to undertake leachate, groundwater, subsurface gas and air quality monitoring around the perimeter of the landfill. The groundwater flow direction from the landfill is expected to be towards the west or north west towards Badgerys Creek and to the east and north east towards South Creek. Given the license conditions, topographic setting of the landfill and construction footprint and the proposed project construction works within the vicinity of the landfill, the risk of migration of landfill gas and leachate into the project construction areas are low. There were no other licensed facilities within 1 km of the off-airport construction corridor.

6.8.4 Sites formerly licensed under the POEO Act

Refer to Section 5.8.4 regarding the Patons Lane Landfill.

6.8.5 Penalty notices under the POEO Act

There was a penalty notice issued by the NSW EPA for the property at 1953-2109 Elizabeth Drive, located within and adjacent to the off-airport construction corridor. Crush and Haul Pty Ltd were issued with three penalty notices in 2016 for unlawfully use of a place as a waste facility, failure to comply with a clean-up notice and failure to pay a fee. The clean-up notice (No. 1536719) was issued in January 2016 for illegal use as a waste facility. The site was storing and processing stockpiles of sand, recovered building materials (concrete, brick, glass), sandstone, gravel and soil. EPA officers sampled and confirmed the presence of ACM within stockpiles. Some of the stockpiled material may have been used for road construction across the property.

6.8.6 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the off-airport construction footprint.

6.9 Previous reports

No previous reports were reviewed for the off-airport construction corridor.

6.10 Other historical information

No other historical information was reviewed for the off-airport construction corridor.

6.11 Site inspection

The off-airport construction corridor was not accessible for inspection.

6.12 Preliminary CSM and risk ranking

Table 6-3 presents the preliminary CSM for construction footprint between the Orchard Hills and Elizabeth Drive based on the findings of the desktop review and the project construction. The areas of medium and high-risk ranking are shown on Figure A7 to A13.

Table 6-3 Preliminary CSM – off-airport construction corridor

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
<p>Site: Off-airport construction corridor for at grade and viaduct railway</p> <p>Construction: Construction stormwater detention basin and water quality basin, surface disturbance for laydown areas, offices, parking areas.</p> <p>Pilings and excavations for footings for viaduct section, upgrade of access road to Luddenham Road, surface disturbance for laydown areas, site offices, worker amenities.</p> <p>Operation: At grade railway and viaduct railway</p>	AEC 31a: 101 Sweetwater Grove, Orchard Hills	<p>Source: Widespread dumping and storage of waste from drums and bulk storage containers and other wastes including vehicles and unidentifiable items up-gradient of the construction footprint. Potential dumping within the construction footprint.</p> <p>CoPC: Heavy metals, TRH, VOCs, SVOCs, nutrients, asbestos and other unknown chemicals</p>	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C3/L3 High
			Surface water runoff	<ul style="list-style-type: none"> Blaxland Creek¹ 	Yes	C3/L3 High
	AEC 31b: 101 Sweetwater Grove, Orchard Hills	<p>Source: Potential workshops, minor waste disposal, use or storage of hazardous building materials</p> <p>CoPC: Heavy metals, TRH, SVOCs, VOCs, asbestos</p>	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C2/L2 Medium
			Surface water runoff	<ul style="list-style-type: none"> Blaxland Creek¹ 	Yes	C2/L2 Medium

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
	AEC 32-34: 2 Bordeaux Place, Orchard Hills	Source: Potential filled areas, areas of potential hazardous building material use CoPC: Heavy metals, TRH, PAH, OCP and asbestos	• Direct contact, inhalation, incidental ingestion	• On-site construction workers • Future commercial and intrusive maintenance workers • Off-site sensitive human receptors (residential) • Ecological receptors	Yes	C2/L2 Medium
			• Surface water runoff	• Blaxland and South Creek ¹	Yes	C2/L1 Low
	AEC 35: 43A Luddenham Road, Orchard Hills	Source: Potential farm waste burial area CoPC: Heavy metals, nutrients, TRH, SVOCs, VOCs, asbestos, biological hazards, aesthetic impacts	• Direct contact, inhalation, incidental ingestion	• On-site construction workers • Future commercial and intrusive maintenance workers • Off-site sensitive human receptors (residential) • Ecological receptors	Yes	C3/L3 High
			• Surface water runoff	• Blaxland Creek ¹	Yes	C3/L3 High
	AEC 36: Defence Establishment Orchard Hills, 114-122 Patons Road Orchard Hills and 1-3 Stockdale	Source: Potential unexploded ordnance (UXO), exploded ordnance (EO) and potential areas of buried waste and former hazardous building materials	• Direct contact, inhalation, incidental ingestion	• On-site construction workers • Future commercial and intrusive maintenance workers • Off-site sensitive human receptors (residential) • Ecological receptors	Yes	C3/L3 High

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
	Road, Orchard Hills	CoPC: Heavy metals, TRH, SVOCs, VOCs, PFAS, asbestos, UXO and EO	<ul style="list-style-type: none"> • Surface water runoff 	<ul style="list-style-type: none"> • Unnamed tributary of South Creek and South Creek¹ 	Yes	C3/L3 High
	AEC 37: Warragamba to Prospect Water Supply Pipelines	Source: Historical use of lead paint and asbestos CoPC: Lead and asbestos	<ul style="list-style-type: none"> • Direct contact, inhalation, incidental ingestion 	<ul style="list-style-type: none"> • On-site construction workers • Future commercial and intrusive maintenance workers • Off-site sensitive human receptors (residential) • Ecological receptors 	Yes	C2/L2 Medium
			<ul style="list-style-type: none"> • Surface water runoff 	<ul style="list-style-type: none"> • Dams and South Creek¹ 	Yes	C2/L2 Medium
	AEC 38: Kennett's Airfield, 459 Luddenham Road, Luddenham	Source: Fuel storage and use (AST and underground pipelines), potential storage or use of AFFF and stockpiles CoPC: TRH, BTEX, PAHs, PFAS, heavy metals, asbestos	<ul style="list-style-type: none"> • Direct contact, inhalation, incidental ingestion 	<ul style="list-style-type: none"> • On-site construction workers • Future intrusive maintenance workers • Off-site sensitive human receptors (residential) • Ecological receptors 	Yes	C3/L3 High
			<ul style="list-style-type: none"> • Surface water runoff 	<ul style="list-style-type: none"> • Dams and South Creek¹ 	Yes	C3/L3 High
Site: Off-airport construction corridor between Luddenham	AEC 40: Lot 3 DP 25578 at 546-640 Luddenham	Source: Historical unlicensed stockpiling of waste and soil	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> • On-site construction workers • Future commercial and intrusive maintenance workers 	Yes	C3/L3 High

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
<p>Road and Elizabeth Drive</p> <p>Construction: Pilings and excavations for footings for viaduct section, earthworks for at grade construction, stormwater basin and water quality basin, laydown areas, site offices, worker amenities</p> <p>Operation: At grade and viaduct track</p>	Road, Luddenham	CoPC: Heavy metals, TRH, VOCs, SVOCs, PCBs, asbestos		<ul style="list-style-type: none"> Off-site sensitive human receptors (residential) Ecological receptors 		
			Surface water runoff	<ul style="list-style-type: none"> Dams and Cosgroves Creek¹ 	Yes	C3/L2 Medium
	AEC 41: 1953-2109 Elizabeth Drive Badgerys Creek	<p>Source: Illegal stockpiling of waste and imported soil. Potential use of imported fill material with potential ACM for road construction and filling in parts of the construction footprint.</p> <p>CoPC: Heavy metals, TRH, SVOCs, PCBs, asbestos</p>	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers Ecological receptors 	Yes	C2/L2 Medium
			Surface water runoff	<ul style="list-style-type: none"> Dams and Cosgroves Creek¹ 	Yes	
			Surface water runoff	<ul style="list-style-type: none"> Dams and Cosgroves Creek and Badgerys Creek¹ 	Yes	C2/L2 Medium
	AEC 42 and 43: 1793-1951 Elizabeth Drive Badgerys Creek	<p>Source: Upgradient and within construction footprint - workshop (fuel/oil/chemical storage and use) and potential spray race (pesticides)</p> <p>CoPC: Heavy metals, TRH, SVOCs, PCBs, asbestos</p>	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C3/L3 High
			Surface water runoff	<ul style="list-style-type: none"> Dams and Badgerys Creek¹ Off-site sensitive human receptors (residential) 	Yes	C3/L2 Medium

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
				<ul style="list-style-type: none"> Ecological receptors 		
	AEC: 1793-1951 Elizabeth Drive Badgerys Creek	Source: Potential filling around dams CoPC: Heavy metals, TRH, SVOCs, PCBs, asbestos	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers 	Yes	C2/L3 Medium
			Surface water runoff	<ul style="list-style-type: none"> Dams and Badgerys Creek¹ 	Yes	C2/L3 Medium

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact)

7 Luddenham Road construction site

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the Luddenham Road construction site footprint.

7.1 Construction site description

The Luddenham Road construction site is described in Table 7-1 and its boundary is shown on Figure A10 to A11 in Appendix A.

Table 7-1 Site description – Luddenham Road construction footprint

Item	Description		
Location	Luddenham		
LGA	Penrith City Council		
Area	Address	Lot and DP	Land use
Luddenham	565 Luddenham Road	Part Lot 4 in DP1242470	Rural
	581 Luddenham Road	Part Lot 4 in DP1255721	Rural
	599 Luddenham Road	Part lot 5 in DP1255721	Rural
	546-640 Luddenham Road	Part Lot 3 and 4 in DP255578	Rural

7.2 Current and surrounding land use

The Luddenham Road construction site on the west side of Luddenham Road appeared to be undeveloped and the east side appeared to be used as grazier land with an area contain stockpiles of soil and waste. The surrounding land use was mainly rural with also the following land uses:

- low density residential and Twin Creeks Golf Course 650 metres east
- Kennett's Airfield 450 metres north.

7.3 Zoning

The Luddenham Road construction site footprint is zoned 'RU4 Primary Production Small Lots'.

7.4 Historical aerial review

The findings of the historical aerial review of the Luddenham Road construction site is summarised below:

- 1955: all of the site appeared to be grazier land with no buildings. 200 m to the east of Lot 57 DP1139980 there is a property with several large sheds and three dams. Luddenham Road intersects the site.
- 1977: there was a dam in 581 Luddenham, the site appeared to be grazier land with no buildings on site. There were several large sheds, residential properties and dams within 500 m of the site. Luddenham Road intersects the site.
- 1980: there was a dam, residential house and several large sheds within 581 Luddenham Road, the site appeared to be grazier land. 546-640 Luddenham Road appeared to have surface stockpile of unknown waste items on site. There were several large sheds, residential properties and dams within 500 m of the site. Luddenham Road intersected the site.
- 1994: there was two dams, a residential house and several large sheds within 581 Luddenham Road, the site appeared to be grazier land. 546-640 Luddenham Road appeared to have surface

stockpile of unknown waste items and a dam on site. There were several large sheds, residential properties and dams within 500 m of the site. Luddenham Road intersected the site.

- 2005: there were two dams, residential house and several large sheds within 581 Luddenham Road, the site appeared to be grazier land. 546-640 Luddenham Road appeared to have surface stockpiles of unknown waste items and a dam on site. There were several large sheds, residential properties and dams within 500 m of the site. Luddenham Road intersected the site.

7.5 Historical business records

There were no historical business records within the Luddenham Road construction site footprint.

7.6 Historical titles and Section 10.7 certificates

Based on the review of historical aerial photographs indicating historical use for agricultural purposes, historical titles and Section 10.7 Planning Certificates were not obtained for Luddenham Road construction site footprint.

7.7 NSW EPA records

7.7.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 1 km of the Luddenham Road construction site footprint.

7.7.2 Sites notified to the NSW EPA under the CLM Act

There were no regulated sites within 1 km of the Luddenham Road construction site footprint.

7.7.3 Sites currently licensed under the POEO Act

There were no sites currently licensed under the POEO Act within 1 km of the Luddenham Road construction site footprint.

7.7.4 Sites formerly licensed under the POEO Act

There were no sites formerly licensed under the POEO Act within 1 km of the Luddenham Road construction footprint.

7.7.5 Penalty notices under the POEO Act

There were no penalty notices within 1 km of the Luddenham Road construction footprint.

7.7.6 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the construction footprint.

7.8 Previous reports

JBS&G Pty Ltd (JBS&G) prepared the '*Sydney Science Park Remedial Action Plan, Luddenham Road, Luddenham, NSW*' report dated 9 December 2016 (JBS&G, 2016a). The JBS&G (2016a) RAP area included the Luddenham Road construction site and part of the construction corridor footprint.

The RAP objective was to provide remediation and validation requirements to render the site suitable for the proposed land use. The proposed land use was stated as low, medium and high density residential, employment and education, open space and commercial/retail.

The RAP was informed by a previous PSI (JBS&G, 2013) and DSI (JBS&G, 2016b). The PSI identified the following potential sources of contamination:

- various ASTs and a single UST for fuel storage
- oil drums
- ACM in the form of sheets were observed near storage areas and buildings/structures and road drainage pipes constructed of ACM

- building rubble and fill was identified in parts of the roads, causeways and dams.

The DSI identified natural soils as comprising brown to orange silty clay of low to moderate plasticity, with no odours or staining observed in surface soils or the boreholes or test pits. Areas of fill consisted of reworked soils containing some demolition materials. Within the construction footprint it appeared there had been targeted sampling of the areas of concern identified, including AST and UST locations, building and shed areas, dams, fill, suspected ACM and power pole locations. One groundwater monitoring well (MW02) was installed near the UST within the construction footprint, and two others outside the construction footprint (MW01 and MW03). No information on groundwater depth was described in the RAP (JBS&G, 2016a)

There appeared to be no soil exceedances within the Luddenham Road construction footprint. There were soil exceedances of the ASC NEPM 2013 (HILs, EILs and HSLs) for low density residential land use) in areas outside of the construction footprint for arsenic, copper, lead, zinc, TRH, benzo(a)pyrene, ACM and asbestos fines in soil. The exceedances were mainly around former farm sheds, dam walls and power poles. There were no groundwater exceedances of the adopted criteria. The groundwater analysis suite and adopted criteria were not specified in the RAP.

7.9 Other historical information

No other information was identified.

7.10 Site inspection

An inspection of publicly accessible areas of the construction footprint in Luddenham was undertaken in August 2019. The land uses observed were as identified in the desktop assessment.

7.11 Preliminary CSM and risk ranking

Table 7-2 presents the preliminary CSM for the Luddenham Road construction site based on the findings of the desktop review and the project construction. The areas of medium and high-risk ranking are shown on Figure A10 to A11 in Appendix A.

Table 7-2 Preliminary CSM – Luddenham Road construction site

Construction site	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: Luddenham Road Construction: Pilings and excavations for footings for viaduct section, surface disturbance for laydown areas, site offices, worker amenities. Operation: Metro station, carpark and access road	AEC 39: 565-581 Luddenham Road, Luddenham	Source: ACM pipelines and isolated ACM in soil from former buildings, isolated zinc exceedance in soil (based on JBS&G RAP (2016a))	Inhalation (asbestos)	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers Off-site sensitive human receptors (residential) 	Yes	C2/L3 Medium
		CoPC: Asbestos and zinc	Uptake and surface water runoff (zinc)	<ul style="list-style-type: none"> Dams, Unnamed tributary of South Creek, Cosgroves Creek¹ Ecological receptors 	Yes	C2/C1 Low
	AEC 40: Lot 3 DP 25578 at 546-640 Luddenham Road, Luddenham	Source: Historical unlicensed stockpiling of waste and soil	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C3/L3 High
		CoPC: Heavy metals, TRH, VOCs, SVOCs, PCBs, asbestos	Surface water runoff	<ul style="list-style-type: none"> Dams and Cosgroves Creek¹ 	Yes	C3/L2 Medium
			Surface water runoff	<ul style="list-style-type: none"> Dams and Badgerys Creek¹ Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C3/L2 Medium

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact)

8 Off-airport project alignment in Bringelly

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the off-airport project alignment between the Western Sydney International boundary and the Aerotropolis Core Station. The off-airport project alignment is shown on Figure A14 to A15 in Appendix A.

8.1 Zoning

The current land use zoning within 1 kms of the off-airport project alignment in Bringelly includes:

- RU1 – primary production
- RU4 – primary production small lots
- SP2 – Infrastructure (Telecommunications)
- SP2 – Infrastructure (Defence)
- SP1 – Special Activities (Commonwealth Activities).

8.2 Current and surrounding land use

Current land uses within 1 km of the off-airport project alignment are predominantly rural with a mixture of horticulture, poultry, hobby farms, small earth works businesses and the Western Sydney International construction site.

8.3 Historical aerial review

Historical aerials between 1955 and 2019 indicate that the surrounding land use has been predominantly used for agricultural purposes, primarily grazier land, hobby farms, horticulture and poultry farms. Minor land uses have included small commercial earthworks/transport business yards. No significant landfills or industrial scale activities were visible in the aerials review.

8.4 Historical business records

The following historical business records were listed within Bringelly in the 1980 with no specific property number:

- Compact Suspended Ceilings Pty Ltd, Badgerys Creek Road, Bringelly
- A Class Air Conditioning/Sharp G R/Atlantic Air Conditioning, Derwent Road, Bringelly
- Damacio A (Builders and Contractors), Badgerys Creek Road, Bringelly
- Reg Lee Excavations Pty Ltd, Mersey Road, Bringelly
- Lutiger W & E, Dog Boarding Kennels, Badgerys Creek Road, Bringelly
- Furtner Debeaking Pty Ltd, Badgerys Creek Road, Bringelly
- White R J (Repair Services-General), Badgerys Creek Road, Bringelly
- Tegel Pty Ltd (Poultry Farmers & Dealers), Mersey Road, Bringelly.

The following historical business records were listed within Bringelly in 1991 with no specific property number:

- Bringelly Tractor Mower & Hardware (Agricultural Machinery/Tractors and Parts), Mersey Road, Bringelly
- Fitzpatrick Ron (Drainer)
- Lee Reg Excavations Pty Ltd/Reg Lee Excavations Pty Ltd (Excavating &/or Earth Moving Contractors).

8.5 NSW EPA records

8.5.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 1 km of the off-airport project alignment in Bringelly.

8.5.2 Sites notified to the NSW EPA under the CLM Act

There were no NSW EPA notified sites within 1 km of the off- airport project alignment in Bringelly.

8.5.3 Sites currently licensed under the POEO Act

There were two licensed premises within 1 km of the off- airport project alignment in Bringelly. Both premises were operated by Elford Group Pty Ltd (EPL 20498):

- 145 Mersey Road: Badgerys Creek Shale Quarry and Resource Recovery Facility, located directly south west of the tunnel alignment
- 320-400 Badgerys Creek Road: Badgerys Creek Shale Quarry and Resource Recovery Facility, located 600 metres northeast of the alignment.

8.5.4 Sites formerly licensed under the POEO Act

There was one penalty notice issued by the NSW EPA for properties within 1 km of the off- airport project alignment in Bringelly. The penalty notice was for 145 Mercy Road, located directly to the southwest of the alignment. The property owner was issued with a clean-up notice (1529870) in 2015 for the unlawful processing and storage of waste on the premises. Three pieces of suspected bonded asbestos within the material from which a pad constructed with imported fill were positively identified by laboratory analysis as bonded ACM.

8.5.5 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the off- airport project alignment in Bringelly. The Bringelly Rural Fire Service Station is located 1.3 kms south west of the project alignment at 5A Greendale Road, Bringelly.

8.6 Previous reports

No previous reports were reviewed for the off- airport project alignment.

8.7 Other historical information

No other information was reviewed for the reviewed for the off- airport project alignment.

8.8 Site inspection

A site inspection of publicly accessible areas surrounding the tunnel alignment was undertaken and found land use to be consistent with the desktop assessment.

8.8.1 Preliminary CSM

Table 8-1 presents the preliminary CSM for the off-airport project alignment based on the findings of the desktop review and the project construction and operation. The CSM lists the key project construction and operation components, areas of concern, sources and CoPC, exposure pathways and receptors and risk ranking.

Table 8-1 Preliminary CSM – off-airport project alignment in Bringelly

Construction and operation	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Construction: Tunnel boring, dewatering, spoil transport and disposal. Operation: Undrained tunnel	Groundwater	Source: Historical agricultural land use, Bringelly Rural Fire Service (potential AFFF use) CoPC: heavy metals, nutrients, pesticides, PFAS	<ul style="list-style-type: none"> Groundwater extraction/dewatering and discharge to receiving environment Direct contact, inhalation, incidental ingestion 	<ul style="list-style-type: none"> Badgerys, Thompsons and South Creek¹ Construction workers Future commercial and intrusive maintenance workers 	Yes No ² No	C3/L2 Medium ^{3&4}

1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact) 2. Unlikely to be at concentrations that presents human health risk construction workers based on the depth of the tunnel and potential sources 3. Groundwater treatment to be undertaken prior to discharge. 4. PFAS concentrations likely to be lower at depth in bedrock

9 Bringelly services facility

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the Bringelly services facility.

9.1 Construction site description

The Bringelly services facility construction site description is listed in Table 9-1 and shown on Figure A14.

Table 9-1 Site description – Bringelly services facility

Item	Description
Location	Bringelly
LGA	Penrith City Council
Address	40 Derwent Road, Bringelly
Lot and DP	Lot 181 DP806012
Land use	Rural
Area	4 hectares

9.2 Current and surrounding land use

The Bringelly services facility appeared to contain a residential premises, shed, dam and uncultivated paddocks. The area east of the dam contained several old/dilapidated sheds and other small indistinguishable objects. Many of the large trees around the dam and centre of the site appear stressed or dead.

The neighbouring properties to the north, west and south appeared to be used for commercial purposes. The northern property appeared to contain equipment and stockpile storage. The properties to the west and south appeared to be earthworks business yards. The properties directly east of the site appeared to be undeveloped pastured lots.

9.3 Zoning

The Bringelly services facility is zoned 'RU4 -Primary Production Small Lots'.

9.4 Historical aerial review

The historical aerial review of the Bringelly services facility are summarised below:

- 1955: comprised pasture and a cluster of trees in the centre of the site with no buildings or structures
- 1970: the present day shed and dam had been constructed since 1955
- 1980: another four sheds and other indistinguishable items were located east of the dam
- 1994: the present day house had been constructed since 1980
- 2005: no significant change since with the exception that all but one of the sheds appeared partially demolished or dilapidated.

9.5 Historical business records

- There were no historical business directory records within the Bringelly services facility.

9.6 Historical titles

Historical titles were not obtained for the Bringelly services facility.

9.7 Section 10.7 certificates

There were no planning certificates obtained for the Bringelly services facility.

9.8 NSW EPA records

9.8.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 1 km of the Bringelly services facility.

9.8.2 Sites notified to the NSW EPA under the CLM Act

There were no NSW EPA notified sites within 1 km of the Bringelly services facility.

9.8.3 Sites currently licensed under the POEO Act

There were two licensed premises within 1 km of the Bringelly services facility. Both premises were operated by Elford Group Pty Ltd (EPL 20498):

- 145 Mersey Road: Badgerys Creek Shale Quarry and Resource Recovery Facility, located directly south west of the construction site
- 320-400 Badgerys Creek Road: Badgerys Creek Shale Quarry and Resource Recovery Facility, located 600 metres northeast of the construction site.

9.8.4 Sites formerly licensed under the POEO Act

There was one penalty notice issued by the NSW EPA for properties within 1 km of the Bringelly services facility construction footprint. The penalty notice was for 145 Mercy Road, located directly to the southwest of the construction site. The property owner was issued with a clean-up notice (1529870) in 2015 for the unlawful processing and storage of waste on the premises. Three pieces of suspected bonded asbestos within the material from which a pad constructed with imported fill were positively identified by laboratory analysis as bonded ACM.

9.8.5 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the Bringelly services facility.

9.9 Previous reports

No previous reports were reviewed for the Bringelly services facility.

9.10 Other historical information

No other information was reviewed for the Bringelly services facility

9.11 Site inspection

No inspection was undertaken.

9.12 Preliminary conceptual site model and risk ranking

Table 9-2 presents the preliminary CSM for the Bringelly services facility on the findings of the desktop review and the project construction. The areas of medium and high-risk ranking are shown on Figure A14.

Table 9-2 Preliminary CSM – Bringelly services facility

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: Bringelly services facility Construction: Demolition of existing structures, earthworks for shaft excavation and construction, construction and fit out of services facility Operation: Services facility	AEC 45: 40 Derwent Road, Bringelly	Source: areas of stored wastes and use of potential hazardous building materials CoPC: Heavy metals, TRH, PAHs, asbestos	<ul style="list-style-type: none"> Direct contact, inhalation, incidental ingestion 	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C2/L3 Medium
			<ul style="list-style-type: none"> Surface water runoff 	<ul style="list-style-type: none"> Dams and Badgerys Creek¹ 	Yes	C2/L2 Medium

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact)

10 Aerotropolis Core construction footprint

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for Aerotropolis Core construction footprint.

10.1 Construction site description

The Aerotropolis Core construction footprint description is listed in Table 10-1 and shown on Figure A14 to A16 in Appendix A.

Table 10-1 Site description – Aerotropolis Core

Item	Description		
Location	Bringelly		
LGA	Penrith		
Area	Address	Lot and DP	Land use
Aerotropolis Core	Badgerys Creek	Part Lot 2714 DP1128906	Riparian zone
	215 Badgerys Creek	Part Lot 10 DP1235662	Former Overseas Telecommunications Radio Station Complex (OTC) site

10.2 Zoning

The zoning of the Aerotropolis Core construction footprint is 'RU4 Primary Production Small Lots'.

10.3 Historical aerial review

The findings of the historical aerial review of the Aerotropolis Core construction footprint are summarised in below:

- 1955: the site appeared to be grazier land with no buildings or structure visible.
- 1970: a road had been constructed leading to a cluster of buildings directly to the west of the OTC site. There were four main buildings, a tennis court and several smaller sheds. Six houses were located just west of the OTC buildings and the site. There were numerous vehicle tracks visible in the grassed areas of the site.
- 1980: there were two houses within the site boundary just east of the OTC buildings. The image of OTC site was not clear but appeared similar to 1970.
- 1994: no obvious changes from 1994, structures appearing to potentially be tower arrays were visible across the OTC site.
- 2005: two of the buildings and the tennis courts had been demolished since 1994. The houses to the west had also been demolished. Several sheds around the main building remained.

10.4 Historical business records

Refer to Section 8.4 for the historical business records listed within Bringelly.

10.5 Historical titles

Historical titles were reviewed for 215 Badgerys Creek Road (Lot 10 in DP1235662). The property was owned by a private owner until purchase by the Commonwealth of Australia in 1957. The property was transferred to Defence Housing Australia from 2015 to 2017 and then back to the Commonwealth of Australia.

10.6 Section 10.7 certificates

The planning certificates were obtained for the for 215 Badgerys Creek Road (Lot 10 in DP1235662). The certificate listed the site as potentially contaminated land managed by section 10 of Part 1 of the Liverpool Development Control Plans.

10.7 NSW EPA records

10.7.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 1 km of the Aerotropolis Core construction footprint.

10.7.2 Sites notified to the NSW EPA under the CLM Act

There were no regulated sites within 1 km of the Aerotropolis Core construction footprint.

10.7.3 Sites currently licensed under the POEO Act

There was one NSW EPA licensed premises within 1 km of the Aerotropolis Core construction footprint, Ingham's Breeder Farms at Lot 23 Badgerys Creek Road, Badgerys Creek (EPL 1254). The premises is topographically down-gradient of the construction footprint and not considered potential source of contamination to the Aerotropolis core construction footprint.

10.7.4 Sites formerly licensed under the POEO Act

There were no formerly licensed sites within 1 km of Aerotropolis Core construction footprint

10.7.5 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the construction footprint.

10.8 Previous reports

Previous targeted and limited soil and groundwater investigations have been undertaken within the Aerotropolis Core construction footprint and surrounding land within the OTC site. The reports reviewed indicated that:

- slightly elevated concentrations of arsenic, lead, nickel, copper and TRH have been detected in surface soils at concentrations above ecological screening criteria
- slightly elevated concentrations of cadmium, copper and zinc above ecological screening criteria in groundwater were considered to be indicative of background concentrations and not warrant further investigation
- low concentrations of PFAS were detected in surface soils, surface water and groundwater with PFOS and the sum of PFOS/PFHxS at concentrations less than PFAS NEMP (2018) criteria for commercial/industrial human health and ecological criteria in soil and less than the ecological freshwater screening levels 95% species protection in surface water samples
- ACM conduits are potentially present below the surface in parts of the site and the buildings contain hazardous building materials.

10.9 Other historical information

Information accessed from the NSW OEH website (<https://www.environment.nsw.gov.au/heritageapp>) for the former OTC site was reviewed and included the followed relevant information:

- the main radio receiving station building, which is surrounded by a number of masts and a small 1950s staff housing development consisting of fifteen domestic dwellings
- the radio receiving station buildings were constructed in 1950 to 1951 and commissioned in 1951 (note this contradicts the 1955 aerial photograph and historical titles)
- the main station building housed radio receiving equipment and a storage building which housed a diesel generator and battery room

- the station was decommissioned except for a single storey wing which housed HF receivers and operated as an unmanned facility for Maritime Services from Ships at Sea and Qantas
- the materials included face brick external walls, corrugated asbestos, cement roof, timber framed sash windows
- the receiving station and a related water tank were demolished in around 2008.

10.10 Site inspection

An inspection of OTC site was undertaken by M2A on the 10 October 2019. The following site features were observed within and surrounding the OTC compound:

- a diesel UST of unknown capacity unknown was adjacent to the main building (Plate 3)
- a transformer and substation adjacent to the main building (Plate 4)
- generator and electrical power boards within the main building and along with unknown decommissioned machinery and subsurface pits (Plate 5)
- three groundwater monitoring wells to the east and north of the UST and main building
- a dangerous goods storage shed (Plate 6)
- warning signs for asbestos within buildings and on the compound gate
- a large concrete septic tank (~ 2 x 10 metre) to the north of the compound
- fill mounds to and remnant building footings the south of the compound
- demolition materials (mainly broken bricks) in surface soils to the north and west of the compound
- signs for earth mat perimeters to the south of the compound
- a metal water tank to the west of the compound
- a main tower within the compound and tower arrays in the surrounding fields
- several underground service pits surrounding the compound
- fire hydrants and pump house.

An inspection of the remainder of the publicly accessible construction footprint in Bringelly was undertaken in August 2019. The land uses were as identified in the desktop assessment. Private properties could not be inspected.



Plate 3 OTC compound diesel UST



Plate 4 OTC compound main building, substation and transformer



Plate 5 OTC compound building interior



Plate 6 OTC compound dangerous goods store (right) and groundwater monitoring well

10.11 Preliminary CSM and risk ranking

Table 10-2 presents the CSM for the Aerotropolis Core construction footprint based on the findings of the desktop review and project construction. Figure A14 to A16 in Appendix A.

Table 10-2 Areas and potential contaminants of concern – Aerotropolis Core construction footprint

Construction site	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: Aerotropolis Core construction footprint Construction: Pilings and footings for viaduct station and track, stockpiling of engineering fill, parking, laydown areas, temporary workshop and offices Operation: Metro station, viaduct track, station car park and access road	AEC 46: 225-245 Bringelly Creek Road, Bringelly and part of former OTC site, 215 Badgerys Creek Road, Bringelly	Source: Unidentified items in historical aerals and former potential hazardous building materials CoPC: lead, asbestos and PCBs	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C2/L2 Medium
	AEC 47: Former OTC site compound, 215 Badgerys Creek Road, Bringelly	Source: former fuel/oil and chemical storage and potential use of hazardous building materials in and around the closed OTC compound, on and/or off-site source of PFAS CoPC: heavy metals, TRH, VOCs, SVOCs, PFAS, PCBs and asbestos	Direct contact, inhalation, incidental ingestion	<ul style="list-style-type: none"> On-site construction workers Future commercial and intrusive maintenance workers Off-site sensitive human receptors (residential) Ecological receptors 	Yes	C3/L3 High
			Surface water runoff	<ul style="list-style-type: none"> Dams, Moore Gully, Thompsons Creek¹ 	Yes	C3/L2 Medium

Notes: 1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact)

11 Permanent bulk power supply route

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the permanent power route between the stabling and maintenance facility in Orchard Hills and Erskine Park substation.

11.1 Description

The permanent power route description is listed below and shown on Figure A17.

Table 11-1 Site description – permanent bulk power supply route

Item	Description		
Location	Orchard Hills and Erskine Park		
LGA	Penrith		
Area	Address	Lot and DP	Land use
Orchard Hills	117-199 Luddenham Road	Lot 5 DP521268	Rural
	Luddenham Road	Road reserve	Road
	182-200 Luddenham Road	Lot 1 DP547057	Rural
	75-77 Mandalong Close	208 DP1013539	Semi-rural/residential
	Mandalong Close	Road reserve	Road
Orchid Hill/ Erskine Park	Mamre Road	Road reserve	Road
Erskine Park	Erskine Park Road	Road reserve	Road
	Lenore Drive	Road Reserve	Road
	John Morphet Place	Road Reserve	Road
	8 John Morphet Place	Lot 9 DP1097134	Substation
	9-10 John Morphet Place	Lot 7 DP1097134	Blue Star Global Logistics

11.2 Zoning

The zoning along the permanent power route is:

- RU2 - rural landscape and E2 - environmental conservation, west of Mamre Road
- SP2 – infrastructure, along Mamre Road
- IN1 – industrial, east of Mamre Road.

11.3 Current and surrounding land uses

The current land use along the permanent power route comprises road reserve with the exception of rural properties located between Luddenham Road and Mandalong Close. The permanent power route between Mamre Road and the Erskine Park substation, is mainly surrounded by industrial land use. Commercial trade data for businesses within 200 metres of the route, as listed in Table 11-2, indicates that the businesses comprise mainly logistics, freight services and warehouses.

Table 11-2 Current surrounding land uses – permanent bulk power supply route

Name	Activity	Location	Distance (m)	Proximity
K & C Auto Electrics	Auto electrical service	Unit 2/1 John Morphett Pl, Erskine Park NSW 2759	29.7	north
Linfox	Transportation service	John Morphett Pl, Erskine Park NSW 2759	43	north
Packcentre Marketing Services	Warehouse & Distribution	15-23 Quarry Rd, Erskine Park NSW 2759	49.3	south
Blue Star Global Logistics	Freight forwarding service	9-10 John Morphett Pl, Erskine Park NSW 2759	50.5	south-east
Capral Aluminium	Aluminium Supplier	1/107 Erskine Park Rd, Erskine Park NSW 2759	59.3	north
Coil Steels	Steel distributor	73-90 Lenore Lane, Erskine Park NSW 2759	79.6	north
DB Schenker Erskine Park	Warehouse	2 Tyrone Pl, Erskine Park NSW 2759	85.8	south
CEVA Logistics	Logistics service	33-83 Quarry Rd, Erskine Park NSW 2759	114.7	south
Silk Contract Logistics	Logistics service	1/23-107 Erskine Park Rd, Erskine Park NSW 2759	126.5	north
Bell Canvas Australia	Manufacturer	83 Mandalong Cl, Orchard Hills NSW 2748	129.2	north
Sydney Forklift Trucks	Forklift dealer	83 Mandalong Cl, Orchard Hills NSW 2748	130	north
Tutt Bryant Hire	Building equipment hire service	60 Tyrone Place, Erskine Park, Sydney NSW 2759	133.9	south
Sennheiser Australia Technical Services	Technical service	C/- Linfox, Gate3, 1 Fox Lane, Erskine Park NSW 2759	140.5	north
CEVA Logistics	Logistics service	33-83 Quarry Rd, Erskine Park NSW 2759	143.7	south
Mulgoa Quarries PTY Ltd.	Excavating contractor	44 Tyrone Pl, Erskine Park NSW 2759	145.1	south
SCT Logistics	Logistics service	34-42 Tyrone Pl, Erskine Park NSW 2759	150.4	south
BrandLink	Logistics service	16B Tyrone Pl, Erskine Park NSW 2759	160.7	south

Name	Activity	Location	Distance (m)	Proximity
DHL	Logistics service	23-107 Erskine Park Rd, Sydney NSW 2759	161.8	north
Darley Aluminium Trading P/L	Aluminium Supplier	8 Tyrone Pl, Erskine Park NSW 2759	164.4	south
Coates Hire Seven Hills (P)	Equipment rental agency	23 Grady Cres, Erskine Park NSW 2759	173.6	south-east
VISA Global Logistics	Logistics service	11-14 John Morphett Pl, Erskine Park NSW 2759	199.4	south-east

11.4 Historical aerial review

The findings of the historical aerial review for the permanent power route is summarised in Table 11-3.

Table 11-3 Historical aerial review summary - permanent bulk power supply route

Section	Description
Patons Lane to Luddenham Road	In 1947 there was an unsealed track or road in the approximate location of the current Patons Lane, which was surrounded by a belt of scattered trees and surrounding pastured paddocks. The horse stud to the south was first present in the 1965 aerial photograph. Other than road construction and changes to vegetation no other significant activities were visible in the aerial photographs between 1947 and 2019.
Luddenham Road to South Creek	The land within the footprint appeared to be a paddock with two paleochannels intersecting the construction footprint. No structures or other noticeable features were visible in the aerial photographs between 1947 and 2019.
South Creek to Mamre Road	Prior to 2003 the construction footprint comprised pastured paddocks with no visible features with the exception of a dirt track intersecting part of the centre of now Mandalong Close prior to and including 1965. An area of clustered stockpiles covering around two hectares was visible 200 metres south of the Mandalong Close in 1994 and 2003. Mandalong Close was constructed between 2003 and 2008. The properties developed along Mandalong Close appear to be residential with the exception of a transport/earth works yard and another commercial business, both at the northwest end of Mandalong Close.
Mamre Road	The construction footprint along Mamre Road appeared to contain to major features other than the road, pastured paddocks on the western side and bushland on the eastern side. Mamre road appears to be upgraded between the 1986 and 1994 aerial photograph and between 2011 and 2014.
Erskine Park Road	<p>Surrounded by paddocks except quarry located 350 m south in 1947. The quarry was filled in between 1994 and present day.</p> <p>Erskine Park Road was upgraded prior to development of first factories between 2003 and 2008. There were some former agricultural buildings/sheds near the intersection of Lenore Lane between 1947 and 1975/1984.</p> <p>There appeared to be evidence of potential wastes/fly tipping on the north side of Erskine Park Road near Mamre Road.</p> <p>The industrial developments along the north and south sides of Erskine Park Road were constructed between 2003 and 2008.</p>

Section	Description
Lenore Lane	A dam and building were located within the western end of Lenore Lane from the 1984 to 1994 aerial photograph. They were filled in and demolished and then Lenore Road was upgraded between 2003 and 2008. The majority of industrial developments along the north and south side of Lenore Road were developed between 2008 and 2014, and the last lot developed between 2017 and 2020.
John Morphet Place	John Morphet Lane was constructed between 2003 and 2008. A former dwelling and sheds were located within the southern end of the lane from 1947 until demolished after 2003.
Transmission Line easement (Part Lot 7 DP1097134 and Lot 1 DP1203886)	Grazier land comprising pastured paddocks and sparse trees since 1947, with the high voltage transmission lines visible since 1975. No other obvious features were visible with the exception of dirt tracks and a number of small undistinguishable items.

11.5 Historical business records

Historical businesses records were limited to three records within 200 metres of the cable route, as listed in Table 11-4.

Table 11-4 Current surrounding land uses – permanent bulk power supply route

Year	Name	Activity	Location	Distance (m)	Proximity
2005	Gino's Transport	Transport Services	Lot 210, Mandalong PI, ERSKINE PARK, NSW 2759, Australia	0	Within footprint
2005	C & T Spicer Livestock Carrier	Livestock Transport Services	215 Luddenham Rd, Orchid Hills, NSW 2759, Australia	171	south

11.6 Historical titles

Historical titles were not obtained for the permanent power route.

11.7 Section 10.7 certificates

here were no planning certificates obtained for the permanent power route.

11.8 NSW EPA Records

11.8.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 500 metres of the permanent cable route.

11.8.2 Sites notified to the NSW EPA under the CLM Act

There were no NSW EPA notified sites within 500 metres of the permanent cable route.

11.8.3 Sites currently licensed under the POEO Act

There were three POEO Act licensed sites within 500 metres of permanent cable route.

Table 11-5 Current surrounding land uses – permanent bulk power supply route

EPL	Licence holder	Premises name and address	Fee based activity	Distance (m)	Proximity
13378	NACE Civil Engineering Pty. Limited	Erskine Park Link Road, between Lenore Lane & Old Wallgrove Road, Erskine Park, NSW, 2759	Road construction	0	Within footprint
20163	DHL Supply Chain (Australia) Pty Ltd	Building B1, 23-107 Erskine Park Road Erskine Park	General chemicals storage	161	North
20814	SRC Operations Pty Limited	Patons Lane Landfill, 123 - 129 Patons Lane, Orchard Hills	Land-based extractive activity, Waste disposal by application to land		West
21259	SRC Operations Pty Limited	123 - 129 Patons Lane, Orchard Hills	Recovery of general waste, Waste storage - other types of waste		West

11.8.4 Sites formerly licensed under the POEO Act

There were two sites formerly licensed under the POEO Act within 500 metres of permanent cable route, as listed in Table 11-6.

Table 11-6 Sites formerly licensed under POEO Act – permanent bulk power supply route

EPL	Licence holder	Premises name and address	Fee based activity	Distance (m)	Proximity
13154	Reckitt Benckiser (Australia) Pty Limited	Warehouse A2, Westpark Industrial Estate 23-107 Erskine Park Road, Erskine Park, NSW, 2759	General chemicals storage	0	north
11706	Orchard Holdings (NSW) Pty Ltd (C/- Condon Associates - Liquidators)	Orchard Holdings (NSW) Pty Ltd 123-179 Patons Lane, Orchard Hills, NSW, 2748	Land-based extractive activity	106	west

11.8.5 Penalty notices under the POEO Act

Refer to Section 6.8.5 for penalty notice issued to former operators of Patons Lane Landfill.

11.8.6 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the construction footprint.

11.9 Preliminary CSM and risk ranking

Table 11-7 presents the preliminary CSM for the permanent power route based on the findings of the desktop review and the project construction. The areas of medium and high-risk ranking are shown on Figure A17 in Appendix A.

Table 11-7 Areas and potential contaminants of concern – permanent bulk power supply route

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
<p>Site: Permanent Power Route</p> <p>Construction: Shallow trenching (excavation and reinstatement of soils), under-bore beneath South Creek and installation of power cables</p> <p>Operation: Permanent power cable</p>	AEC 48: Road corridors: Patons Lane, Erskine Park Road and Lenore Lane and John Morphett Place	<p>Source: potential use of fill in road construction, roadside waste tipping</p> <p>CoPC: Heavy metals, TRH, PAHs, OCPs, PCBs, asbestos</p> <p>Source: Former demolition of building and structures containing hazardous building materials</p> <p>CoPC: Lead and asbestos</p>	<ul style="list-style-type: none"> • Direct contact, inhalation, incidental ingestion • Discharge of surface water to South Wianamatta Creek 	<ul style="list-style-type: none"> • On-site construction workers • Future intrusive maintenance workers • South-Wianamatta Creek 	Yes	C2/L2 Medium

12 Kemps Creek construction power route to Western Sydney International

This section describes the site history review, areas of concern, CoPC, preliminary CSM and risk ranking for the temporary construction power route between the Western Sydney International and Kemps Creek substation.

12.1 Route description

The Kemps creek construction power route to Western Sydney International is described below and shown on Figure A18.

Table 12-1 Description – Kemps creek construction power route to Western Sydney International

Item	Description		
Location	Kemps Creek		
LGA	Penrith		
Area	Address	Lot and DP	Land use
Badgerys Creek	Pitt Street	Road reserve	Road
	Lawson Road	Road reserve	Road
	Cuthel Road	Road reserve	Closed road
	Martin Road	Road reserve	Road
	Easement located between 130 and 140 Martin Road	Easement located between Lot 3 DP 565512 and Lot 48 on DP3050	Overhead power line easement
Kemps Creek	Easement located between 113 and 125 Western Road Kemps Creek	Easement	Overhead power line easement
	Western Road, Kemps Creek	Road reserve	Road
	Cross Street, Kemps Creek	Road reserve	Road
	120 Cross Street, Kemps Creek	Substation	Substation

12.2 Zoning

The Kemps creek construction power route to Western Sydney International is zoned:

- RU1 – primary production within Badgerys Creek
- RU4 – primary production small lots within Kemps Creek

12.3 Current and surrounding land uses

The current land use along the Kemps creek construction power route to Western Sydney International comprises road reserve with the exception of commercial and rural properties located between Western Road and Martin Road and the Kemps Creek substation. Commercial trade data for businesses within 200 metres of the route are listed in Table 12-2. The surrounding land uses are predominantly rural properties comprising horticulture and some other small commercial businesses. Kemps Creek Public School is located adjacent to the power route corridor in Criss Street.

Table 12-2 Current commercial land uses – Kemps creek construction power route to Western Sydney International

Name	Activity	Location	Distance (m)	Proximity
Luxcon Group	Property Development company	115 Martin Rd Badgerys Creek NSW 2555	27	North
Scott's Trailer Hire	Trailer rental service	Western Rd, Kemps Creek NSW 2178	56	North
Joe Ducks & Chickens	Poultry farm	195 Lawson Rd, Badgerys Creek NSW 2555	79	South
Kodiak Automotives NSW Pty Ltd	Oil wholesaler	9 Turnbull Ave, Kemps Creek NSW 2178	81	South

12.4 Historical aerial review

The findings of the historical aerial review for the Kemps Creek power route is summarised in Table 12-3.

Table 12-3 Historical aerial review summary – Kemps creek construction power route to Western Sydney International

Section	Description
Pitt Street	In 1947 Pitt Street was unsealed with pastured fields on either side. A dam was present on the northern boundary in 1955 and appeared to be filled in by 1975. In 1975 there was un-identifiable items potentially waste on top of or within the filled dam. In 1969 the fields immediately south of the easement were cultivated with poultry sheds further south.
Lawson Road	Lawson Road was present by 1947 and appeared to be an unsealed road. Appeared to be sealed from 1986.
Cuthel Road	In 1947 Cuthel Road appeared to be an unsealed road with bushland and pastured paddock on northern and southern side. A dwelling with sheds was present on the southern boundary. There was a plantation on northern side of road since 2008 and the building on southern side of the easement was demolished since 2003. In current 2020 aerial imagery the road appeared closed and there appeared to be areas of dumped waste along the road.
Martin Road	The road was present in 1947 and appeared to undergo no major visible changes.
Easement between Martin Road and South-Wianamatta Creek	Between 1947 and 2014 the easement comprised and was surrounded by pastured and cultivated fields with a cluster of rural buildings on the southern boundary in centre of the easement until 2017. The northern side of the easement was cultivated between 1994 and 2008. There appeared to be significant earthworks/disturbance across the easement and surrounding lot to the north and south since 2017 with commercial/construction equipment laydown areas. The laydown areas appeared to have been extended since 2017 in the 2020 aerial.
Easement between South-Wianamatta Creek and Western Road	Pastured fields surrounded the easement until 1986 when surrounding land was subdivided into small rural lots and earthworks across the middle of the easement were visible. Between 1994 and 2020 variable use of the surrounding lots occurred for horticulture, residential and some small unknown commercial uses.
Western Road, Kemps Creek	Western Road was present since 1947, with immediate surrounding lots comprising rural residential lots.

Section	Description
Cross Street, Kemps Creek	Bushland with several dirt tracks on the north and south side of Cross Street in 1947. Cross Street constructed between 1947 and 1955. The block of land to the immediate north of Cross Street appeared mainly undeveloped with the exception of Kemps Creek Public School, Bill Anderson Park and the substation. The land along the southern boundary of Cross Street was progressively cleared and subdivided into rural lots between 1955 and 2008.
120 Cross Street, Kemps Creek	The property appeared to be developed with a substation between 1965 and 1975. Prior to 1965 the property was bushland and partially cleared on the western side. Configuration to current substation buildings appeared have occurred between 2011 and 2014.
Cuthel Road	Cuthel road was present prior to 1947, with immediate surrounding lots comprising rural residential lots with the exception of the substation on the western side.

12.5 Historical business records

Historical businesses records identified within 200 metres of the cable route are listed in Table 12-4.

Table 12-4 Current surrounding land uses – Kemps creek construction power route to Western Sydney International

Year	Name	Activity	Location	Distance (m)	Proximity
1981	Heinisch B	Piggeries	Martin Road Badgerys Creek	*	*
1981	V.A.D. Concrete	Concrete Contractors	Martin Road Badgerys's Creek	*	*
1981	N.S.W. Building Engineering Co	Engineers - General	Pitt Street Badgerys Creek	*	*
1981	Stacey Engineering Pty Ltd	Engineers - General	Pitt Street Badgerys's Creek	*	*
1990	Blackridge Kennels Dog Training Academy	Dog Boarding Kennels	47 Western Road Kemps Creek NSW Australia	45	North west
1990	F & D Air Conditioning Pty Ltd	Air Conditioning - Home	20 Sumaya Avenue Kemps Creek NSW Australia	180	North
1990	Topopo Cranes Pty Ltd	Crane & Travel Tower - Hire or Servicing	20 Overett Avenue Kemps Creek NSW Australia	85	North west
1991	Barillaro V & R	Concrete Contractor	Martin Road Badgerys Creek	*	*
1991	Western Road marking	Road &/or Line Marking	Corner Cross Street and Western Road Kemps Creek	0	South

Year	Name	Activity	Location	Distance (m)	Proximity
2005	N.S.W. Building Engineering Co	Engineers - General	Pitt Street Badgerys Creek	*	*
2005	AAD Concrete	Concrete Contractors	Lot 16 Sumbrey Ave, KEMPS CREEK,	200	South*
2005	B A Steel Pty Ltd	Engineers-General	120 Martin Rd, BADGERYS CREEK, NSW 2555, Australia	0	South

12.6 Historical titles

Historical titles were not obtained for the Kemps Creek power route.

12.7 Section 10.7 certificates

There were no planning certificates obtained for the Kemps Creek power route.

12.8 NSW EPA Records

12.8.1 Sites regulated under the CLM Act 1997

There were no NSW EPA regulated sites within 500 metres of the permanent cable route.

12.8.2 Sites notified to the NSW EPA under the CLM Act

There were no NSW EPA notified sites within 200 metres of the permanent cable route.

12.8.3 Sites currently licensed under the POEO Act

There were no POEO Act licensed sites within 200 metres of permanent cable route.

12.8.4 Sites formerly licensed under the POEO Act

There were no sites formerly licensed under the POEO Act licensed within 200 metres of power route.

12.8.5 Penalty notices under the POEO Act

Two properties had notices issued under the POEO Act within the power route corridor for unauthorised waste storage and application to land as described in Table 12-5.

Table 12-5 Penalty notices issued under POEO ACT – Kemps creek construction power route to Western Sydney International

Address	Notice	Summary
130 and 140 Martins Road, Badgerys Creek	s.91 Clean up notice 1555853	<p>On 7 June 2016, the EPA received information regarding alleged land pollution at Lot 3 in DP565512, Lot 48 DP 3050, and Cadastre 105249439 known respectively as 130 Martin Road and 140 Martin Road and “unnamed road parcel” in Badgerys Creek.</p> <p>A significant volume of waste material was spread across the premises estimated to exceed 4200 m² in area and exceeding 3 metres in depth in some places. The waste material was described as largely processed and unprocessed building and demolition waste that consisted of bricks, concrete, timber, stumps, tiles, shells, fibro, metal, plastic, terracotta pipe, chipboard, clay, asphalt, shale, sandstone, tyres and asbestos. Visual comparison of the premises to the neighbouring properties showed the natural ground levels to have been raised and levelled. There was generally no vegetation growing on the surface and the waste material appeared to have been recently placed and spread at the premises.</p> <p>NSW EPA laboratory results confirmed the presence of asbestos (chrysotile, crocidolite and amosite) in seven samples collected from across the premises. The clean-up notice requirements included cessation of operations of receipt and land application of waste, erecting of signage, and completion of volumetric survey, asbestos assessment and remediation plan.</p>
	Penalty notice 3173523935	Not comply with requirement under Chapter 7 – Individual. Offence dated 4 September 2017.
	Penalty notice 3173525044	Fail to pay fee within time provided under section – Individual. Offence dated 5 January 2018.
120 Martins Road, Badgerys Creek Lot 2 in DP 565512	s.91 Clean up notice 1542352	<p>On 7 June 2016, the EPA received information regarding alleged land pollution at Lot 2 in DP 565512, known respectively as 120 Martin Road.</p> <p>A significant volume of waste material has been spread across the premises estimated to be approximately 30,000 m² in area and up to 4 or 5 metres in depth in some places.</p> <p>The waste material is largely processed and unprocessed building and demolition waste that consists of bricks, concrete, timber, stumps, tiles, shells, fibro, metal, plastic, terracotta pipe, chipboard, clay, asphalt, shale, sandstone, tyres and suspected asbestos.</p> <p>EPA laboratory results confirmed the presence of asbestos (Chrysotile, Crocidolite and Amosite) in twenty five samples taken from across the Premises. The clean-up notice requirements included cessation of operations of receipt and land application of waste, signage, and waste classification report.</p>

Address	Notice	Summary
113 Western Road, Kemps Creek	s.91 Clean up notice 1509139	<p>NSW EPA authorised officers conducted an inspection of the premises on 13 September 2012 and observed the importation to and storage of waste material at the premises including:</p> <ul style="list-style-type: none"> a large number of stockpiles of waste material consisting of soil, bricks, concrete, timber, glass, scrap metal and household waste a large number of skip bins that were full of waste material including soil, bricks, concrete, timber, glass, scrap metal and household waste several skip bins that contained asbestos pieces and sheeting. Some of which was partially wrapped in plastic asbestos pieces that had been broken a spread across the ground. <p>The notice ordered the immediate removal of the waste from the premises, at a rate of 40 tonnes or 40 m³ per month until all of the waste on the Premises was been removed to a facility legally licensed to accept the waste.</p>
	s.91 Clean up notice 1511151	By Wednesday 30 January 2013, provide the EPA with paperwork (such as dockets, receipts and/or invoices) demonstrating that the waste and skip bins were disposed of at a place that can lawfully receive them. Immediately engage the services of a suitably qualified occupational hygienist to inspect the premises. By 18 January 2013, arrange for the occupational hygienist to provide a preliminary verbal report to the EPA.
	s.91 Clean up notice 1511634	The notice was amended on 14 May 2013 to immediately engage the services of a suitably qualified class A licensed asbestos removal contractor to provide a quote and removal plan for all the asbestos imported onto the premises. By Monday 17 June 2013, commence the removal of the asbestos waste identified in the Report, in accordance with the Report and any additional directions from the EPA.
113 Western Road, Kemps Creek	s.91 Clean up notice 1516213	<p>On 3 January 2013 the EPA was advised by Liverpool City Council that there was a fire in the waste stored on the premises and that the Rural Fire Service attended the premises to extinguish the fire.</p> <p>On 4 January 2013 EPA officers inspected the premises and observed that a large amount of the waste stored on the premises had been burnt by the fire.</p> <p>EPA received a report prepared by A.D. Envirotech Australia Pty Ltd (5417/INS1) ("the Report") for identifying the asbestos waste in the fire effected area.</p> <p>1511634 on 14 May 2013. Notice 1511634 required that all of the asbestos waste identified in the Report be removed from the Premises by 8 July 2013. On 6 September 2013 Kemps Creek provided an Asbestos Removal Control Plan ("ARCP"). The plan was prepared by Asbestos Removal projects Pty Ltd and details the procedures for the removal of the asbestos waste on the Premises. By Wednesday 25 September 2013, commence the removal of the asbestos waste identified in the Report, in accordance with the ARCP. By Wednesday 9 October 2013, provide a detailed report on the removal of the waste to the EPA.</p>

12.8.6 PFAS investigation sites

There were no NSW EPA PFAS investigation sites within 2 kms of the Kemps Creek power route corridor.

12.9 Site inspection

An inspection of publicly accessible areas of the Kemps Creek power route corridor indicated current land uses consistent with the desktop assessment. There were several areas of illegal waste tipping of rubbish and soil observed along the northern side of Cross Street.

12.10 Preliminary conceptual site model and risk ranking

Table 12-6 presents the preliminary CSM for the permanent power route based on the findings of the desktop review and the project construction. The areas of medium and high-risk ranking are shown on Figure A18 in Appendix A.

Table 12-6 Preliminary CSM – Kemps Creek power route

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: Kemps Creek power route Construction: Construction: Trenching (excavation and reinstatement of soils), under-bore beneath South-Wianamatta Creek and installation of power cables Operation: Not required for operation	AEC 49: Cuthel Road and Cross Street	Source: Illegal waste tipping CoPC: asbestos, TRH, heavy metals, SVOCs	<ul style="list-style-type: none"> Direct contact, inhalation, incidental ingestion Discharge of surface water to South Wianamatta Creek 	<ul style="list-style-type: none"> On-site construction workers South-Wianamatta Creek 	Yes	Medium L2/C2
	AEC 50: Easement between 130 and 140 Martin Road	Source: Imported fill from unknown source containing asbestos and other demolition wastes CoPC: asbestos, heavy metals, TRH, SVOCs	<ul style="list-style-type: none"> Direct contact, inhalation, incidental ingestion Discharge of surface water to South Wianamatta Creek 	<ul style="list-style-type: none"> On-site construction workers South-Wianamatta Creek 	Yes	Medium L2/C3
	AEC 51: Easement south of 113 Western Road	Source: Imported fill/stockpiles from unknown source containing asbestos and other demolition wastes CoPC: asbestos, heavy metals, TRH, SVOCs	<ul style="list-style-type: none"> Direct contact, inhalation, incidental ingestion Discharge of surface water to South Wianamatta Creek 	<ul style="list-style-type: none"> On-site construction workers South-Wianamatta Creek 	Yes	Medium L2/C3
	AEC 52: Substation: 120	Source: Use and storage of oils in substation and	<ul style="list-style-type: none"> Direct contact, inhalation, 	<ul style="list-style-type: none"> On-site construction workers 	Yes	Medium L2/C3

Construction site	Area of concern	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
	Cross Street, Kemps Creek	hazardous building materials CoPC: TRH, PAHs, BTEX, PCBs, heavy metals	incidental ingestion • Discharge of surface water to South Wianamatta Creek	• South-Wianamatta Creek		

Appendix D

On-airport preliminary
conceptual site model

Table 12-7 presents the CSM for the on-airport construction footprint and tunnel alignment based on the review of previous reports and the project construction.

Table 12-7 Preliminary CSM – on-airport

Construction	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
<p>Site: On-airport construction corridor</p> <p>Construction: surface earth works and at grade rail construction</p> <p>Operation: At grade metro rail</p>	Disturbance of contaminated soil capped or not remediated during Western Sydney International Construction Impact Zone earthworks	<p>Sources: Historical use of hazardous building materials and demolition of structures, localised chemical and fuel storage and use, waste burial, stockpiling.</p> <p>CoPC: asbestos, heavy metals, PAHs, TRH/BTEX</p>	<ul style="list-style-type: none"> • Direct contact, inhalation, incidental ingestion • Surface water runoff 	<ul style="list-style-type: none"> • On-site construction workers • Future intrusive maintenance workers • Badgerys Creek¹ 	Yes (if capped or un-remediated areas required to be disturbed) 7	C2/L2 Medium
<p>Site: Airport Business Park Station</p> <p>Construction: construction of the rail alignment including civil and earthworks for the transition of the rail alignment from surface to in-cutting, construction of the Airport Business Park Station structures, finishes and fitout, minor station precinct works</p> <p>Operation: Airport Business Park Station (in -cutting undrained)</p>	Disturbance of contaminated soil capped or not remediated during Western Sydney International Construction Impact Zone earthworks	<p>Sources: Historical use of hazardous building materials and demolition of structures, localised chemical and fuel storage and use, waste burial, stockpiling.</p> <p>CoPC: asbestos, heavy metals, PAHs, TRH/BTEX</p>	<ul style="list-style-type: none"> • Direct contact, inhalation, incidental ingestion • Surface water runoff • Dewatering during construction 	<ul style="list-style-type: none"> • On-site construction workers • Future commercial workers • Future intrusive maintenance workers • Badgerys Creek¹ 	Yes (if capped or un-remediated areas disturbed)	C2/L2 Medium

Construction	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
<p>Site: Western Sydney International tunnel portal and Airport Terminal Station</p> <p>Construction: construction of the rail alignment including civil and earthworks for the transition of the rail alignment from in-cutting to in-tunnel. Includes:</p> <ul style="list-style-type: none"> • TBM launch • TBM support including spoil handling • construction of the tunnel portal • temporary water treatment plant • landscaping <p>Operation: Tunnel portal and Airport Terminal Station (underground station - undrained)</p>	Disturbance of contaminated soil capped or not remediated during Western Sydney International Construction Impact Zone earthworks	<p>Sources: Historical use of hazardous building materials and demolition of structures, localised chemical and fuel storage and use, waste burial, stockpiling.</p> <p>CoPC: asbestos, heavy metals, PAHs, TRH/BTEX</p>	<ul style="list-style-type: none"> • Direct contact, inhalation, incidental ingestion • Surface water runoff • Dewatering during construction 	<ul style="list-style-type: none"> • On-site construction workers • Future commercial workers • Future intrusive maintenance workers • Badgerys Creek¹ 	Yes (if capped or un-remediated areas disturbed)	C3/L2 Medium

Construction	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
<p>Site: Airport construction support site</p> <p>Construction: construction and use of haulage roads to support the construction of the project within Western Sydney International, earthworks for construction of laydown areas, activities required for the production and storage of viaduct and tunnel lining segments, including concrete batching, potential permanent placement of spoil site offices and construction worker car parking</p> <p>Operation: No operational components</p> <p>Other long term feature:</p> <p>Permanent fill placement area for future use</p>	<p>Areas previously identified as medium, high risk for contamination or asbestos impacted areas within the construction footprint in the Western Sydney International outside the Construction Impact Zone</p>	<p>Sources: Historical use of hazardous building materials and demolition of structures, localised chemical and fuel storage and use, waste burial, stockpiling.</p> <p>CoPC: asbestos, heavy metals, PAHs, TRH/BTEX</p>	<ul style="list-style-type: none"> • Direct contact, inhalation, incidental ingestion • Surface water runoff 	<ul style="list-style-type: none"> • On-site construction workers • Future commercial workers • Future intrusive maintenance workers • Badgerys Creek¹ 	<p>Yes</p>	<p>C2/L3 Medium</p>

Construction	AEC	Potential sources and CoPC	Potential exposure pathways	Potential receptors	Potentially complete pathways	Consequence (C), likelihood (L) and overall risk ranking
Site: On-airport project alignment (tunnel) Construction: tunnelling by TBM, installation of pre-cast segments and rail Operation: rail tunnel (undrained)	Groundwater along tunnel alignment	Source: Historical agricultural land use, Bringelly Rural Fire Service (potential AFFF use) CoPC: heavy metals (mainly cadmium, copper, nickel and zinc), PFAS	<ul style="list-style-type: none"> Groundwater extraction/dewatering and discharge to receiving environment Direct contact, inhalation, incidental ingestion 	<ul style="list-style-type: none"> Badgerys, Thompsons and South Creek¹ Construction workers 	Yes No ²	C1/L3 Low ^{3&4}

1. Fresh water aquatic ecosystems and recreational receptors (primary and secondary contact) 2. Unlikely to be at concentrations that presents human health risk construction workers based on the depth of the tunnel and potential sources 3. Groundwater treatment to be undertaken prior to discharge. 4. PFAS concentrations likely to be lower at depth in bedrock

Appendix E

Historical titles

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 112 in DP880997

24 Harris Street North, St. Marys

OWNERSHIP:

Re: the part of Lot 112 in DP880997 that was formerly Lot 1 in DP196900

From 17/12/1919 to 3/9/1959 - Charles Albert Beacroft of St. Marys, Farmer (& Estate of)

From 3/9/1959 to 18/9/1959 - Peter Huston Pty Ltd

From 18/9/1959 to 6/8/1965 - Harold William Barnes of Parramatta, Builder

From 6/8/1965 to 15/7/1987 - Bowman's Bus Service Pty Ltd (later Westbus Pty Ltd)

Re: the part of Lot 112 in DP880997 that was formerly Lots 1 & 2 in DP156010

From 13/3/1930 to 4/9/1936 - Kate Pericles Luke of St. Marys, Widow

From 4/9/1936 to 20/12/1948 - Lillian Emily Shaw, wife of Ernest Tiswell Shaw of St. Marys, Farmer

From 20/12/1948 to 20/12/1948 - Frank Lewis Da Silva of Mt. Druitt, Milk Vendor

From 20/12/1948 to 14/10/1959 - Frederick Percival Bowman of St. Marys, Bus Proprietor

From 14/10/1959 to 15/7/1987 - Bowman's Bus Service Pty Ltd (later Westbus Pty Ltd)

Re: the whole of Lot 112 in DP880997

From 15/7/1987 to 29/5/1998 - Bosnjak Holdings Pty Ltd

From 29/5/1998 to date - Kew Projects Pty Ltd (CURRENT OWNER)

LEASES:

From 1/3/1989 to 28/2/1994 - Lajel Pty Ltd

R. Williamson

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 8 in DP29111

14-16 Harris Street, St. Marys

OWNERSHIP:

From 20/9/1928 to 23/8/1937 - Philip James Lethbridge King of Sydney, Civil Servant & The Public
Trustee

From 23/8/1937 to 30/9/1937 - The Public Trustee

From 30/9/1937 to 14/7/1964 - Emanuel Debrincat of Parramatta, Dairyman

From 14/7/1964 to 28/7/1965 - William Charles Larkham of Merrylands, Flight Sergeant & Roma
Beverley Larkham, his wife

From 28/7/1965 to 28/7/1965 - John Wilson of Wentworthville, Accountant

From 28/7/1965 to 22/7/1970 - Eric Edward Kew Soul of St. Marys, Company Director

From 22/7/1970 to date - Kew Projects Pty Ltd (CURRENT OWNER)

LEASES:

From 1979 to 4/1/1982 - Acnil Industries Pty Ltd of premises 14-22 Harris Street, St. Marys

R. Williamson

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 9 in DP29111

12 Harris Street, St. Marys

OWNERSHIP:

From 20/9/1928 to 23/8/1937 - Philip James Lethbridge King of Sydney, Civil Servant & The Public
Trustee

From 23/8/1937 to 30/9/1937 - The Public Trustee

From 30/9/1937 to 8/1/1962 - Emanuel Debrincat of Parramatta, Dairyman

From 8/1/1962 to 9/7/1965 - John Helmer, Weaver, Filipp Helmer, Weaver & Lydia Angel, Married
Woman, all of St. Marys

From 9/7/1965 to 31/10/1969 - Stewardson & Wills (Properties) Pty Ltd

From 31/10/1969 to 21/8/1985 - Poultry Requirements Pty Ltd

From 21/8/1985 to 15/12/1988 - G.E.M. Fabrications Pty Ltd (later The Fence Factory Pty Ltd)

From 15/12/1988 to 17/8/2001 - Roberts Bros. Spuncastings (Sales) Pty Ltd

From 17/8/2001 to 20/10/2016 - Robert Errol Wilkins

From 20/10/2016 to date - Wilkins 12 Harris Street Pty Ltd (CURRENT OWNER)

LEASES:

From 22/5/2019 to 21/5/2024 - Wilkins Windows Pty Ltd of the whole of the premises

R. Williamson

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 10 in DP29111

6-8 Harris Street, St. Marys

OWNERSHIP:

From 20/9/1928 to 23/8/1937 - Philip James Lethbridge King of Sydney, Civil Servant & The Public
Trustee

From 23/8/1937 to 30/9/1937 - The Public Trustee

From 30/9/1937 to 9/3/1960 - Emanuel Debrincat of Parramatta, Dairyman

From 9/3/1960 to 27/11/1978 - Horst Gustav Eitz of St. Marys, Welder

From 27/11/1978 to 2/2/1979 - Rolf Eitz of St. Marys, Apprenticed Technician

From 2/2/1979 to 15/9/1986 - Rita Fredericka Eitz, Widow, Rolf Eitz, Apprentice Technician, Henry
Eitz, Apprentice & Monica Eitz, Retailer, all of St. Marys

From 15/9/1986 to 9/11/1992 - Viva Home Improvements Pty Ltd

From 9/11/1992 to 28/3/1996 - Sodene Pty Ltd

From 28/3/1996 to 22/2/2017 - Jaramis Holdings Pty Ltd

From 22/2/2017 to 29/3/2018 - Marant Pty Ltd

From 29/3/2018 to date - Michael Brookes Pty Ltd (CURRENT OWNER)

LEASES:

From 13/1/1992 to 12/1/1995 - Award Holdings Pty Ltd of whole of premises

From 27/11/2017 to 26/11/2021 - CHC Transport Pty Ltd of Warehouse No. 2

R Williams

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 2 in DP542707

11-13 Chesham Street, St. Marys

OWNERSHIP:

Up to 9/5/1969, Lot 2 in DP542707 formed part of Station Street.

On 9/5/1969, Crown Grant Vol. 11048 Fol. 49 (Closed Road) issued in the name of The Council of the City of Penrith (CURRENT OWNER)

LEASES - NIL

R Williamson

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 47 in DP29388

94-98 Kent Road, Orchard Hills

OWNERSHIP:

From 30/12/1874 to 24/2/1949 - Elizabeth Rouse Alston (Status/Occupation not stated) (& her Estate)

From 24/2/1949 to 1/3/1949 - Frederick Fawsett of Padstow Park, Poultry Farmer

From 1/3/1949 to 10/1/1955 - Emily Ethel MacLaurin of Sydney, Widow & Evan Colin Briarcliffe

MacLaurin of Wentworth Hall, University Lecturer

From 10/1/1955 to 14/8/1956 - William Victor McCall of Sydney, Company Director

From 14/8/1956 to 26/5/1967 - Eastbourne Pty Ltd

From 26/5/1967 to 22/3/2018 - Radivoje Markovic of Grays Stanes, Labourer

From 22/3/2018 to date - Helen Gagen (CURRENT OWNER)

LEASES: NIL

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 48 in DP29388

100-104 Kent Road, Orchard Hills

OWNERSHIP:

From 30/12/1874 to 24/2/1949 - Elizabeth Rouse Alston (Status/Occupation not stated) (& her Estate)

From 24/2/1949 to 1/3/1949 - Frederick Fawsett of Padstow Park, Poultry Farmer

From 1/3/1949 to 10/1/1955 - Emily Ethel MacLaurin of Sydney, Widow & Evan Colin Briarcliffe

MacLaurin of Wentworth Hall, University Lecturer

From 10/1/1955 to 14/8/1956 - William Victor McCall of Sydney, Company Director

From 14/8/1956 to 29/4/1959 - Eastbourne Pty Ltd

From 29/4/1959 to 6/5/1966 - Joseph Connor Pomery of Mortlake, Shopkeeper & Ivy Olga Pomery his wife

From 6/5/1966 to 11/9/1975 - Ivy Olga Pomery

From 11/9/1975 to 28/10/1991 - Burland Leo Pomery of Orchard Hills, School Teacher

From 28/10/1991 to 23/9/2010 - Charles Muscat, Mary Muscat, Jimmy Muscat & Shirley Cassar (later Shirley Muscat)

From 23/9/2010 to date - James Kohler, Caroline Kohler & Luke Kohler (CURRENT OWNERS)

LEASES: NIL

R. Williamson

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 101 in DP841269

101 Sweet Water Grove, Orchard Hills

OWNERSHIP:

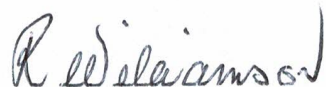
From 7/4/1915 to 19/6/1952 - Ethel Ruby McIntyre of St. Marys, Spinster

From 19/6/1952 to 13/5/1954 - James Peddie of St. Marys, Farmer

From 13/5/1954 to 1/12/1967 - Donald Hector Morehead of St. Marys, Farmer

From 1/12/1967 to date - Joseph Borg & Anthony Borg of Horsley Park, Farmers (CURRENT OWNERS)

LEASES - NIL



SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

20th September 2019

SUBJECT LAND: Lot 10 in DP1235662

215 Badgery's Creek Road, Bringelly

OWNERSHIP:

From 7/6/1921 to 31/7/1957 - Lorna Jessie Macdonald of Yandra, Spinster

From 31/7/1957 to 21/12/2015 - The Commonwealth of Australia

From 21/12/2015 to 3/1/2017 - Defence Housing Australia

From 3/1/2017 to date - The Commonwealth of Australia (CURRENT OWNER)

LEASES - NIL

R. Williamson

SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

25th September 2019

SUBJECT LAND: Lot 2 in DP771697

1-17 Gipps Street, Claremont Meadows

OWNERSHIP:

4/10/1905 - Edward Donald Sparke of Sydney, Surgeon & Arthur Frederick Manchee of Neutral Bay,

Company Manager

17/11/1943 - Giovanni Fornari of St Marys, Labourer

7/4/1947 - Bruno Fornari of St Marys, Market Gardener of the land in Cert. of Title Vol. 5834 Fol. 3

Atilio Fornari of St Marys, Market Gardener of the land in Cert. of Title Vol. 5834 Fol. 4

Silvio Fornari of St Marys, Barman of the land in Cert. of Title Vol. 5834 Fol. 5

20/3/1968 - Ernest Mystegniotis of St Marys, Greengrocer & Effie Mystegniotis, his wife of the land in

Cert. of Title Vol. 5834 Fol. 4

19/4/1974 - The Housing Commission of New South Wales

12/6/1984 - The Land Commission of New South Wales (later Landcom)

20/6/2012 - Roads and Maritime Services

LEASES:

1/3/1967 to 20/3/1968 - to Ernest Mystegniotis of St Marys, Shop Proprietor

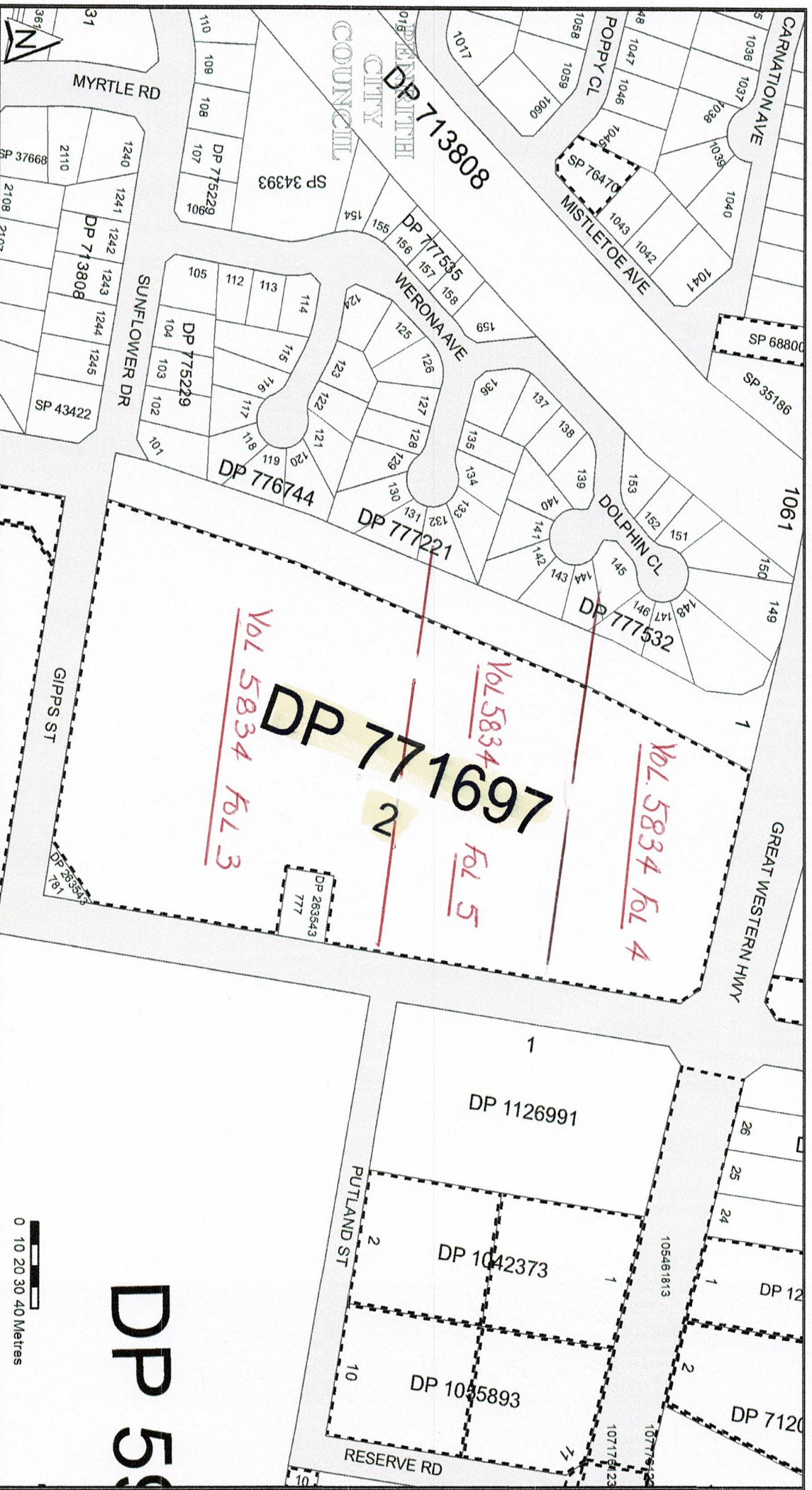
R. Williamson



Cadastral Records Enquiry Report : Lot 2 DP 771697
Locality : CLAREMONT MEADOWS
LGA : PENRITH

Parish : CLAREMONT
County : CUMBERLAND

Ref : NOUSER



SEARCH REPORT

NSW LAND REGISTRY SERVICES

RECORDS BRANCH

25th September 2019

SUBJECT LAND: Lot 9 in DP840717

45 Station Street, St Marys

On the attached cadastral plan, Lot 9 in DP840717 is shown in 6 parts. All parts have been acquired by the Council of the City of Penrith – CURRENT OWNER.

The titles to the 6 parts have evolved as follows:

Re: the part designated (1)

16/12/1920 - John Veness of St Marys, Farmer

29/4/1930 - Ida May Veness of St Marys , Spinster (of part)

9/8/1946 - Ida May Veness of St Marys, Spinster (of the remainder)

24/10/1969 - The Council of the City of Penrith (of part) – Resumption of part

18/12/ 1979 - The Council of the City of Penrith (Conveyance of the remainder)

Re: the part designated (2)

6/7/1931 - Charles Albert Hackett of St Marys, Gentleman & The Union Trustee Company of Australia
Limited

5/9/1941 - The Union Trustee Company of Australia Limited

22/1/1942 - Frank Hall of St Marys, Builder (of part)

31/8/1942 - Charlotte O'Meagher of Cremorne, Widow (of part)

29/3/1945 - Iris Besleiter of St Marys, Pastrycook (of part)

2/11/1946 - Leonard John Stapleton of Sans Souci, Engineer & Mary Eugenie Stapleton, his wife (of part)

24/10/1969 - The Council of the City of Penrith – Resumption

Re: the part designated (3)

12/1/1931 - James Brell of St Marys Tanner

8/6/1945 - Ivy Elizabeth Beacroft of St Marys, Married Woman

18/9/1951 - Mary Irene Williams, wife of Leslie Lee Williams of Bellevue Hill, Electrical Contractor

26/3/1955 - John Russell Jordan of St Marys, Turner & Elizabeth Therese Jordan, his wife

19/5/1975 - The Council of the City of Penrith (Conveyance)

Re: the part designated (4)

12/1/1931 - James Brell of St Marys, Tanner

8/6/1945 - Ivy Elizabeth Beacroft of St Marys, Married Woman

18/9/1951 - Mary Irene Williams, wife of Leslie Lee Williams of Bellevue Hill, Electrical Contractor

26/3/1955 - John Russell Jordan of St Marys, Turner & Elizabeth Therese Jordan, his wife

24/10/1969 - The Council of the City of Penrith – Resumption

Re: the part designated (5)

9/9/1919 - George Leeder of St Marys, Meat Inspector

27/10/1941 - Victor Stanmore George Gibson of St Marys, Carrier & Dulcie Effie Pretoria Gibson
his wife

16/8/1951 - George Patrick McKenzie of St Marys, Railway Employee & Jean McKenzie his wife

12/4/1960 - Lorraine Frances Profilio, wife of Christopher Profilio of St Marys, Shopkeeper

24/10/1969 - The Council of the City of Penrith – Resumption

Re: the part designated (6)

9/9/1919 - George Leeder of St Marys, Meat Inspector

22/10/1941 - Victor Stanmore George Gibson of St Marys, Motor Mechanic & Dulcie Effie Pretoria

Gibson, his wife

24/9/1948 - William Watters of Pagewood, Confectioner

13/3/1956 - Raymond Walter Wood of Penrith, Butcher

9/12/1968 - The Council of the City of Penrith (Conveyance)

There have been no leases registered over the lands.

R. Williams on

6
7
8
9
10
11

QUEEN ST

105310147

105656429

105486242

105315468

105672354

105475714

105320836

1 DP 32982
2 DP 89525
3 DP 50000

105523322

105331474

105635180

105480896

106757821

1 DP 456317
2 DP 238867
3
4 DP 635528
5
6 SP 19805
7 SP 53485
8 DP 377645
9 DP 406472
10 DP 1014968

EAST LANE

105291389

16 DP 238867

DP 839461

78

9

DP 840717

STATION ST

8

COUNCIL

CITY

PENRITH

105691673

DP 7347

7

(1)
(2)
(3)
(4)
(5)
(6)

**PLANNING CERTIFICATE UNDER SECTION 10.7
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979**

Ref.: LIR-837:82401
Ppty: 1284

Cert. No.: 1211

Applicant:
LAND INSIGHT AND RESOURCES
4307/4 DAYDREAM ST
WARRIEWOOD NSW 2102

Receipt No.: 4377364
Receipt Amt.: 53.00
Date: 12-Sep-2019

The information in this certificate is provided pursuant to Section 10.7(2) of the Environmental Planning and Assessment Act (EP&A Act) 1979, as prescribed by Schedule 4 of the Environmental Planning and Assessment Regulation (EP&A Regulation) 2000. The information has been extracted from Council's records, as they existed at the date listed on the certificate. Please note that the accuracy of the information contained within the certificate may change after the date of this certificate due to changes in Legislation, planning controls or the environment of the land.

The information in this certificate is applicable to the land described below.

Legal Description: LOT 10 DP 1235662

Street Address: 215 BADGERYS CREEK ROAD, BRINGELLY NSW 2556

Note: Items marked with an asterisk () may be reliant upon information transmitted to Council by a third party public authority. The accuracy of this information cannot be verified by Council and may be out-of-date. If such information is vital for the proposed land use or development, applicants should instead verify the information with the appropriate authority.*

Note: Commonly Used Abbreviations:

LEP: Local Environmental Plan
DCP: Development Control Plan
SEPP: State Environmental Planning Policy
EPI: Environmental Planning Instrument

1. Names of relevant planning instruments and DCPs

- (a) The name of each EPI that applies to the carrying out of development on the land is/are listed below:

LEPs:

Liverpool LEP 2008

SEPPs*:

SEPP No. 33 – Hazardous and Offensive Development
SEPP No. 50 – Canal Estate Development
SEPP No. 55 – Remediation of Land
SEPP No. 62 – Sustainable Aquaculture
SEPP No. 65 – Design Quality of Residential Flat Development
SEPP (Building Sustainability Index: BASIX) 2004
SEPP No. 70 – Affordable Housing (Revised Schemes)
SEPP (Infrastructure) 2007
SEPP (Mining, Petroleum Production and Extractive Industries) 2007
SEPP (Miscellaneous Consent Provisions) 2007
SEPP (State and Regional Development) 2011
SEPP (Education Establishments and Child Care Facilities) 2017
SEPP (Vegetation in Non-Rural Areas) 2017
SEPP (Sydney Region Growth Centres) 2006
SEPP No 19 – Bushland in Urban Areas
SEPP No 21 – Caravan Parks
SEPP No 30 – Intensive Agriculture
SEPP No 44 – Koala Habitat Protection
SEPP (Exempt and Complying Development Codes) 2008
SEPP No 64 – Advertising and Signage
SEPP (Affordable Rental Housing) 2009

Deemed SEPPs*:

SREP No 20 – Hawkesbury – Nepean River (No. 2 – 1997)

- (b) The name of each draft EPI, or Planning Proposal (which has been subject to community consultation).

Draft LEPs:

N/A

Draft SEPPs*:

Draft SEPP (Competition) 2010

- (c) The name of each DCP that applies to the carrying out of development on the land.

Liverpool DCP 2008**2. Zoning and land use under relevant LEPs and /or SEPPs**

This section contains information required under subclauses 2 and 2A of Schedule 4 of the EP&A Regulation 2000. Subclause 2 of the regulation requires Council to provide information with respect to zoning and land-use in areas zoned by, or proposed to be zoned by, a LEP. Subclause 2A of Schedule 4 of the regulation requires Council to provide information with respect to zoning and land-use in areas which are zoned by, or proposed to be zoned by, the SEPP (Sydney Region Growth Centres) 2006. The land use and zoning information under any EPI applying to the land is given below.

- (a) Name of zone, and the EPI from which the land zoning information is derived.

SP2 Infrastructure (Defence) - Liverpool LEP 2008

- (b) The purposes for which development may be carried out within the zone without the need for development consent

Nil

- (c) The purposes for which development may not be carried out within the zone except with development consent

The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose; Environmental protection works; Roads

- (d) The purposes for which the instrument provides that development is prohibited within the zone

Any development not specified in item (b) or (c)

- (e) If a dwelling house is a permitted use, are there any principal development standards applying to the land that fix minimum land dimensions for the erection of a dwelling house?

No

- (f) Does the land include or comprise critical habitat?

No

- (g) Is the land in a conservation area (however described):

No

(h) Is there an item of environmental heritage (however described) situated on the land

Yes

3. Complying development

The information below outlines whether complying development is permitted on the land as per the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18(1) (c3) and 1.19 SEPP of the (Exempt and Complying Development Codes) 2008.

The first column identifies the code(s). The second column describes the extent of the land in which exempt and complying development is permitted for the code(s) given to the immediate left. The third column indicates the reason as to why exempt and complying development is prohibited on some or all of the land, and will be blank if such development is permitted on all of the land.

Code	Extent of the land for which development is permitted:	The reason(s) as to why development is prohibited:
Housing Code, Rural Housing Code and Greenfield Housing Code	Part	Part of the land is identified as a local heritage item (Clause 1.17A(1)(d)(iii)) Part of the land is identified as being environmentally sensitive land (Clause 1.17A(e))
Commercial and Industrial (New Buildings and Additions) Code	Part	Part of the land is identified as a local heritage item (Clause 1.17A(1)(d)(iii)) Part of the land is identified as being environmentally sensitive land (Clause 1.17A(e))

Code	Extent of the land for which development is permitted:	The reason(s) as to why development is prohibited:
General Development Code, Container Recycling Facilities Code, Fire Safety Code, Housing Alterations Code, Commercial and Industrial Alterations Code, Subdivisions Code, and Demolition Code	Part	Part of the land is identified as a local heritage item (Clause 1.17A(1)(d)(iii)) Part of the land is identified as being environmentally sensitive land (Clause 1.17A(e))

Note: If council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement below will describe that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

Nil

4. Coastal protection*

Has the Department of Finance, Services and Innovation notified Council of the land being affected by 38 or 39 of the Coastal Protection Act, 1979?

No

4A. Certain information relating to beaches and coasts*

(a) Has an order has been made under Part 4D of the Coastal Protection Act 1979 on the land (or on public land adjacent to that land)?

No

(b) Has Council been notified under section 55X of the Coastal Protection Act 1979 that temporary coastal protection works have been placed on the land (or on public land adjacent to that land), and if works have been so placed, is council is satisfied that the works have been removed and the land restored in accordance with that Act?

Not applicable

4B. Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works*

Has the owner (or any previous owner) of the land consented, in writing, that the land is subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act)?

No

5. Mine subsidence*

Is the land a proclaimed to mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961?

No

6. Road widening and road realignment

Is the land is affected by any road widening or road realignment under:

(a) Division 2 of Part 3 of the Roads Act 1993?*

No

(b) An EPI?

No

(c) A resolution of the council?

No

7. Council and other public authority policies on hazard risk restrictions

The following table lists hazard/risk policies that have been adopted by Council (or prepared by another public authority and subsequently adopted by Council). The right-most column indicates whether the land is subject to those policies.

Hazard/Risk	Adopted Policy	Does this hazard/risk policy apply to the land?
Landslip hazard	Nil	No
Bushfire hazard	Liverpool DCP 2008	Yes
	Liverpool Growth Centre Precincts DCP*	No
	Edmondson Park South DCP 2012	No
	Planning for Bushfire Protection (Rural Fire Services, 2006)*	Yes
	Pleasure Point Bushfire Management Plan	No

Hazard/Risk	Adopted Policy	Does this hazard/risk policy apply to the land?
Tidal inundation	Nil	No
Subsidence	Nil	No
Acid Sulphate Soils	Liverpool LEP 2008	No
	Liverpool DCP 2008	No
Potentially Contaminated Land	Liverpool DCP 2008	Yes , see section 10 of Part 1 of the Liverpool DCP 2008
	Liverpool Growth Centre Precincts DCP*	No
Potentially Saline Soils	Liverpool DCP 2008	Yes
	Liverpool Growth Centre Precincts DCP*	No

Note: Land for which a policy applies does not confirm that the land is affected by that hazard/risk. For example, all land for which the Liverpool DCP applies is subject to controls relating to contaminated land, as this policy contains triggers and procedures for identifying potential contamination. Applicants are encouraged to review the relevant policy, and other sections of this certificate, to determine what effect, if any, the policy may have on the land.

7A. Flood related development controls information

- (a) For the purpose of residential accommodation (excluding group homes or seniors housing), is the land, or part of the land, within the flood planning area and subject to flood planning controls?

Yes

For details of these controls, please refer to the flooding section of the relevant DCP(s) as specified in Section 1(c) of this certificate.

- (b) Is development on that land, or part of the land, for any other purpose subject to flood related development controls?

Yes

For details of these controls, please refer to the flooding section of the relevant DCP(s) as specified in Section 1(c) of this certificate.

Note: Words and expressions in this clause have the same meanings as in the instrument set out in the Schedule to the Standard Instrument (Local Environmental Plans) Order 2006.

8. Land reserved for acquisition

Does a LEP, draft LEP, SEPP or draft SEPP identify the acquisition of the land, or part of the land, by a public authority, as referred to in section 3.15 of the Act?

No

9. Contribution Plans

Liverpool Contributions Plan 2009

9A. Biodiversity certified land*

Is the land, or part of the land, biodiversity certified land (within the meaning of Part 8 of the Biodiversity Conservation Act 2016)?

**Yes, part/all of the land is bio-diversity non-certified land
Yes, part/all of the land is bio-diversity certified land**

10. Biobanking agreements*

Is the land subject to a bio-banking agreement under Part 6 of the Biodiversity Conservation Act 2016, as notified to Council by the Chief Executive of the Office of Environment and Heritage?

No

10A. Native vegetation clearing set asides

Does the land contain a set aside area under section 60ZC of the Local Land Services Act 2013?

No, Liverpool is excluded from section 60ZC of the Local Land Services Act 2013

11. Bushfire prone land

Is the land or part of the land, bushfire prone land as defined by the EP&A Act 1979?

Yes, part of the land is bushfire prone land

12. Property vegetation plans*

Is Council aware of the land being subject to a Property Vegetation Plan under the Native Vegetation Act 2003?

No, Liverpool is excluded from the operation of the Native Vegetation Act 2003

13. Orders under Trees (Disputes between Neighbours) Act 2006*

Does an order, made under the Trees (Disputes Between Neighbours) Act 2006 in relation to carrying out of work in relation to a tree on the land, apply?

No, Council has not been notified of an order

14. Directions under Part 3A*

Is there a direction (made by the Minister) that a provision of an EPI in relation to a development does not have effect?

No

15. Site compatibility certificates and conditions for seniors housing*

(a) Is there is a current site compatibility certificate (seniors housing), in respect of proposed development on the land?

No, Council has not been notified of an order.

16. Site compatibility certificates for infrastructure*

(a) Is there is a current site compatibility certificate (infrastructure), in respect of proposed development on the land?

No, Council has not been notified of an order

17. Site compatibility certificates and conditions for affordable rental housing*

Is there is a current site compatibility certificate (Affordable housing), in respect of proposed development on the land?

No, Council has not been notified of an order.

18. Paper subdivision information*

Does any development plan adopted by a relevant authority (or proposed plan subject to a consent ballot) apply to the land? If so the date of the subdivision order that applies to the land.

No

19. Site verification certificates*

Does a current site verification certificate, apply to the land?

No, Council is not aware of a site verification certificate

20. Loose-fill asbestos insulation *

Is a dwelling on the land listed on the register (maintained by the NSW Department of Fair Trading) as containing loose-fill asbestos insulation?

No

Note: despite any listing on the register, any buildings constructed before 1980 may contain loose-fill asbestos insulation or other asbestos products.

21. Affected building notices and building product rectification orders*

Is there any affected building notice (as in Part 4 of the Building Products (Safety) Act 2017) of which the council is aware that is in force in respect of the land?

No

Is there any building product rectification order (as in the Building Products (Safety) Act 2017) of which the council is aware that is in force in respect of the land and has not been fully complied with?

No

Is there any notice of intention to make a building product rectification order (as in the Building Products (Safety) Act 2017) of which the council is aware has been given in respect of the land and is outstanding?

No

22. Contaminated land

Is the land:

(a) Significantly contaminated land within the meaning of that Act?

No

(b) Subject to a management order within the meaning of that Act?

No

(c) Subject of an approved voluntary management proposal within the meaning of that Act?

No

(d) Subject to an ongoing maintenance order within the meaning of that Act?

No

(e) Subject of a site audit statement within the meaning of that Act? *

No

Note: in this clause 'the Act' refers to the Contaminated Land Management Act 1997.



For further information, please contact
CALL CENTRE – 1300 36 2170

Kiersten Fishburn
Chief Executive Officer
Liverpool City Council

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Property No: 312780
Your Reference: LIR-837-843
Contact No.

Issue Date: 13 September 2019
Certificate No: 19/03615

Issued to: Ms E Heiden
602/122 Arthur Street
NORTH SYDNEY NSW 2060

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND

Parish: ROOTY HILL

Location: 24-30 Harris Street NORTH ST MARYS NSW 2760

Land Description: Lot 112 DP 880997

- PART 1 PRESCRIBED MATTERS -

In accordance with the provisions of Section 10.7 of the Act the following information is furnished in respect of the abovementioned land:

1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs

1(1) The name of each environmental planning instrument that applies to the carrying out of development on the land:

Penrith Local Environmental Plan 2010, published 22nd September 2010, as amended, applies to the land.

Sydney Regional Environmental Plan No.9 - Extractive Industry (No.2), gazetted 15 September 1995, as amended, applies to the local government area of Penrith.

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), gazetted 7 November 1997, as amended, applies to the local government area of Penrith (except land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies).

The following State environmental planning policies apply to the land (subject to the exclusions noted below):

State Environmental Planning Policy No.1 - Development Standards. (Note: This policy does not apply to the land to which Penrith Local Environmental Plan 2010 or State Environmental Planning Policy (Western Sydney Employment Area) 2009 apply.)

State Environmental Planning Policy No.19 - Bushland in Urban Areas. (Note: This policy does not apply to certain land referred to in the National Parks and Wildlife Act 1974 and the Forestry Act 1916.)

State Environmental Planning Policy No.21 - Caravan Parks.

State Environmental Planning Policy No.33 - Hazardous and Offensive Development.

State Environmental Planning Policy No.50 - Canal Estate Development. (Note: This policy does not apply to the land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies.

State Environmental Planning Policy No.55 - Remediation of Land.

PLANNING CERTIFICATE UNDER SECTION 10.7

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State Environmental Planning Policy No.64 - Advertising and Signage.

State Environmental Planning Policy No.65 - Design Quality of Residential Apartment Development.

State Environmental Planning Policy No.70 - Affordable Housing (Revised Schemes).

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Note: This policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only as detailed in clause 4 of the policy.)

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.

State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2013.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007.

State Environmental Planning Policy (Infrastructure) 2007.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy (Affordable Rental Housing) 2009.

State Environmental Planning Policy (State and Regional Development) 2011.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.

State Environmental Planning Policy (Education Establishments and Child Care Centre Facilities) 2017.

State Environmental Planning Policy (Primary Production and Rural Development) 2019.

1(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act:

An Annual Update Amendment Planning Proposal applies to this land.

The Planning Proposal seeks to resolve several policy changes, contemporise certain elements and undertake “housekeeping” changes which are minor in nature. (See www.penrithcity.nsw.gov.au for details).

Draft State Environmental Planning Policy (Western Sydney Corridors) may apply to the land. Further information is available here: <https://www.transport.nsw.gov.au/corridors>.

On 22 June 2018, the NSW Government announced changes to the recommended alignments for the Western Sydney corridors, including continuing with the previously gazetted 1951 corridor for the Bells Line of Road Castlereagh Connection.

Draft State Environmental Planning Policy (Primary Production & Rural Development) applies to the land.

Draft State Environmental Planning Policy (Environment) applies to the land.

Draft State Environmental Planning Policy (Remediation of Land) applies to the land.

Draft Standard Instrument (Local Environmental Plans) Order 2006 applies to the land.

Draft State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 applies to the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

1(3) The name of each development control plan that applies to the carrying out of development on the land:

Penrith Development Control Plan 2014 applies to the land.

2 ZONING AND LAND USE UNDER RELEVANT LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

2(a)-(d) the identity of the zone; the purposes that may be carried out without development consent; the purposes that may not be carried out except with development consent; and the purposes that are prohibited within the zone. Any zone(s) applying to the land is/are listed below and/or in annexures.

(Note: If no zoning appears in this section see section 1(1) for zoning and land use details (under the Sydney Regional Environmental Plan or State Environmental Planning Policy that zones this property).)

Zone IN1 General Industrial (Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To promote development that makes efficient use of industrial land.
- To permit facilities that serve the daily recreation and convenience needs of the people who work in the surrounding industrial area.

2 Permitted without consent

Nil

3 Permitted with consent

Animal boarding or training establishments; Boat building and repair facilities; Car parks; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Kiosks; Landscaping material supplies; Light industries; Neighbourhood shops; Places of public worship; Plant nurseries; Oyster aquaculture; Recreation areas; Roads; Rural industries; Self-storage units; Signage; Storage premises; Take away food and drink premises; Tank-based aquaculture; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres

4 Prohibited

Hazardous industries; Offensive industries; Pond-based aquaculture Any other development not specified in item 2 or 3

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Under the terms of Clause 2.6 of Penrith Local Environmental Plan 2010 land may be subdivided but only with development consent, except for the exclusions detailed in the clause.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 4.1A of Penrith Local Environmental Plan 2010, despite any other provision of this plan, development consent must not be granted for dual occupancy on an internal lot in Zone R2 Low Density Residential.

Note 6: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 7: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Under the terms of Clause 7.1 of Penrith Local Environmental Plan 2010 (PLEP 2010) development consent is required for earthworks unless the work is exempt development under PLEP 2010 or another applicable environmental planning instrument, or the work is ancillary to other development for which development consent has been given.

Note 11: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 7.23 of Penrith Local Environmental Plan 2010.

2(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:

(Information is provided in this section only if any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed.)

PLANNING CERTIFICATE UNDER SECTION 10.7

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2(f) whether the land includes or comprises critical habitat:

(Information is provided in this section only if the land includes or comprises critical habitat.)

2(g) whether the land is in a conservation area (however described):

(Information is provided in this section only if the land is in a conservation area (however described).)

2(h) whether an item of environmental heritage (however described) is situated on the land:

(Information is provided in this section only if an item of environmental heritage (however described) is situated on the land.)

2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

(Information is provided in this section only if the land is within any zone under State Environmental Planning Policy (Sydney Region Growth Centres) 2006.)

3 COMPLYING DEVELOPMENT

HOUSING CODE

(The Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

RURAL HOUSING CODE

(The Rural Housing Code only applies if the land is within Zones RU1, RU2, RU3, RU4, RU6 or R5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Rural Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

LOW RISE MEDIUM DENSITY HOUSING CODE

(The Low Rise Medium Density Housing Code only applies if the land is within Zones R1, R2, R3 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Low Rise Medium Density Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Please note that Council has been deferred from the application of Part 3B of the Low Rise Medium Density Housing Code until 31 October 2019. That Part will not apply to Penrith Local Government Area during this time.

GREENFIELD HOUSING CODE

(The Greenfield Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.)

Complying development under the Greenfield Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations Code **may** be carried out on the land.

GENERAL DEVELOPMENT CODE

Complying development under the General Development Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL ALTERATIONS CODE

Complying development under the Commercial and Industrial Alterations Code **may** be carried out on the land.

SUBDIVISIONS CODE

Complying development under the Subdivisions Code **may** be carried out on the land.

DEMOLITION CODE

Complying development under the Demolition Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL (NEW BUILDINGS AND ADDITIONS) CODE

(The Commercial and Industrial (New Buildings and Additions) Code only applies if the land is within Zones B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4 or SP3 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Commercial and Industrial (New Buildings and Alterations) Code **may** be carried out on the land if the land is within one of the abovementioned zones.

FIRE SAFETY CODE

Complying development under the Fire Safety Code **may** be carried out on the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(NOTE: (1) Council has relied on Planning and Infrastructure Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

4 COASTAL PROTECTION

The land is not affected by the operation of sections 38 or 39 of the Coastal Protection Act 1979, to the extent that council has been so notified by the Department of Public Works.

5 MINE SUBSIDENCE

The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961.

6 ROAD WIDENING AND ROAD REALIGNMENT

The land is not affected by any road widening or road realignment under:

- (a) Division 2 of Part 3 of the Roads Act 1993, or
- (b) an environmental planning instrument, or
- (c) a resolution of council.

7 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(a) Council Policies

The land is affected by the Asbestos Policy adopted by Council.

The land is not affected by any other policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

(b) Other Public Authority Policies

The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.

The land is not affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of land slip, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

7A FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

(1) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) if such uses are permissible on the land. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

PLANNING CERTIFICATE UNDER SECTION 10.7**Environmental Planning and Assessment Act, 1979**

(2) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for any other purpose not referred to in (1) above. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

8 LAND RESERVED FOR ACQUISITION

No environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

9 CONTRIBUTIONS PLANS

The Cultural Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith.

The Penrith City Local Open Space Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, excluding industrial areas and the release areas identified in Appendix B of the Plan (Penrith Lakes, Cranebrook, Sydney Regional Environmental Plan No. 30 - St Marys, Waterside, Thornton, the WELL Precinct, Glenmore Park and Erskine Park).

The Penrith City District Open Space Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, with the exclusion of industrial lands and the Penrith Lakes development site.

9A BIODIVERSITY CERTIFIED LAND

(Information is provided in this section only if the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*. (Note. biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.)

10 BIODIVERSITY STEWARDSHIP SITES

(Information is provided in this section only if Council has been notified by the Chief Executive of the Office of Environment and Heritage that the land is land to which a biobanking stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* relates. Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardships agreements under Part 5 of the *Biodiversity Conservation Act 2016*)

10A NATIVE VEGETATION CLEARING SET ASIDES

(Information is provided in this section only if Council has been notified of the existence of a set aside area by Local Land Services or it is registered in the public register under which section 60ZC of the *Local Land Services Act 2013* relates).

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

11 BUSH FIRE PRONE LAND

The land is not identified as bush fire prone land according to Council records.

12 PROPERTY VEGETATION PLANS

(Information is provided in this section only if Council has been notified that the land is land to which a property vegetation plan approved under the *Native Vegetation Act 2003* applies and continues in force.)

13 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

(Information is provided in this section only if Council has been notified that an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.)

14 DIRECTIONS UNDER PART 3A

(Information is provided in this section only if there is a direction by the Minister in force under section 75P(2)(c1) of the Act (repealed on 1st October 2011) that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect.)

15 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS AFFECTING SENIORS HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (seniors housing), of which the council is aware, issued under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 18(2) of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.)

16 SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

(Information is provided in this section only if there is a valid site compatibility certificate (infrastructure), of which council is aware, in respect of proposed development on the land.)

17 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 17(1) or 37(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 have been imposed as a condition of consent to a development application in respect of the land.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

18 PAPER SUBDIVISION INFORMATION

(Information is provided in this section only if a development plan adopted by a relevant authority applies to the land or is proposed to be subject to a consent ballot, or a subdivision order applies to the land.)

19 SITE VERIFICATION CERTIFICATES

(Information is provided in this section only if there is a current site verification certificate, of which council is aware, in respect of the land.)

NOTE: The following matters are prescribed by section 59(2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate

(a) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 - a copy of which has been provided to Council.)

Note: Section 10.7(5) information for this property may contain additional information regarding contamination issues.

20 LOOSE FILL ASBESTOS INSULATION

(Information is provided in this section only if there is a residential premises listed on the register of residential premises that contain or have contained loose-fill asbestos insulation (as required by Division 1A of Part 8 of the home Building Act 1989))

21 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

(Information is provided in this section only if Council is aware of any “affected building notice” and/or a “building product rectification order” in force for the land).

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Note: The Environmental Planning and Assessment Amendment Act 2017 commenced operation on the 1 March 2018. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017, and Environmental Planning and Assessment Regulation 2000.

Information is provided only to the extent that Council has been notified by the relevant government departments.

Note: This is a certificate under section 10.7 of the Environmental Planning and Assessment Act, 1979 and is only provided in accordance with that section of the Act.

Further information relating to the subject property can be provided under section 10.7(5) of the Act. If such further information is required Council indicates that a full certificate under sections 10.7(2) **and** 10.7(5) should be applied for. Contact Council for details as to obtaining the additional information.

Warwick Winn
General Manager

per



Please note:

Certain amendments to the Environmental Planning and Assessment Act 1979 No 203 (Act) commenced on 1 March 2018.

The Environmental Planning and Assessment (Amendment) Act 2017 No 60 makes structural changes to the Act and, as a consequence, the Act has been renumbered in a decimal format. For example, Section 149 Planning Certificates have become Section 10.7 Certificates. Some of the information in this certificate may refer to the previous version of the Act.

Council is committed to updating all relevant documents in a timely manner. This will include planning instruments, applications, approvals, orders, certificates, forms and other associated documents in both printed and electronic versions. Council is required to implement these changes and regrets any inconvenience caused to the local business, industry and the community.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Property No: 312771
Your Reference: LIR-837-843
Contact No.

Issue Date: 13 September 2019
Certificate No: 19/03616

Issued to: Ms E Heiden
602/122 Arthur Street
NORTH SYDNEY NSW 2060

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND **Parish:** ROOTY HILL

Location: 18 Harris Street NORTH ST MARYS NSW 2760
Land Description: Lot 1 DP 741939

- PART 1 PRESCRIBED MATTERS -

In accordance with the provisions of Section 10.7 of the Act the following information is furnished in respect of the abovementioned land:

1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs

1(1) The name of each environmental planning instrument that applies to the carrying out of development on the land:

Penrith Local Environmental Plan 2010, published 22nd September 2010, as amended, applies to the land.

Sydney Regional Environmental Plan No.9 - Extractive Industry (No.2), gazetted 15 September 1995, as amended, applies to the local government area of Penrith.

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), gazetted 7 November 1997, as amended, applies to the local government area of Penrith (except land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies).

The following State environmental planning policies apply to the land (subject to the exclusions noted below):

State Environmental Planning Policy No.1 - Development Standards. (Note: This policy does not apply to the land to which Penrith Local Environmental Plan 2010 or State Environmental Planning Policy (Western Sydney Employment Area) 2009 apply.)

State Environmental Planning Policy No.19 - Bushland in Urban Areas. (Note: This policy does not apply to certain land referred to in the National Parks and Wildlife Act 1974 and the Forestry Act 1916.)

State Environmental Planning Policy No.21 - Caravan Parks.

State Environmental Planning Policy No.33 - Hazardous and Offensive Development.

State Environmental Planning Policy No.50 - Canal Estate Development. (Note: This policy does not apply to the land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies.

State Environmental Planning Policy No.55 - Remediation of Land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

State Environmental Planning Policy No.64 - Advertising and Signage.

State Environmental Planning Policy No.65 - Design Quality of Residential Apartment Development.

State Environmental Planning Policy No.70 - Affordable Housing (Revised Schemes).

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Note: This policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only as detailed in clause 4 of the policy.)

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.

State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2013.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007.

State Environmental Planning Policy (Infrastructure) 2007.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy (Affordable Rental Housing) 2009.

State Environmental Planning Policy (State and Regional Development) 2011.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.

State Environmental Planning Policy (Education Establishments and Child Care Centre Facilities) 2017.

State Environmental Planning Policy (Primary Production and Rural Development) 2019.

1(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act:

An Annual Update Amendment Planning Proposal applies to this land.

The Planning Proposal seeks to resolve several policy changes, contemporise certain elements and undertake “housekeeping” changes which are minor in nature. (See www.penrithcity.nsw.gov.au for details).

Draft State Environmental Planning Policy (Western Sydney Corridors) may apply to the land. Further information is available here: <https://www.transport.nsw.gov.au/corridors>.

On 22 June 2018, the NSW Government announced changes to the recommended alignments for the Western Sydney corridors, including continuing with the previously gazetted 1951 corridor for the Bells Line of Road Castlereagh Connection.

Draft State Environmental Planning Policy (Primary Production & Rural Development) applies to the land.

Draft State Environmental Planning Policy (Environment) applies to the land.

Draft State Environmental Planning Policy (Remediation of Land) applies to the land.

Draft Standard Instrument (Local Environmental Plans) Order 2006 applies to the land.

Draft State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 applies to the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

1(3) The name of each development control plan that applies to the carrying out of development on the land:

Penrith Development Control Plan 2014 applies to the land.

2 ZONING AND LAND USE UNDER RELEVANT LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

2(a)-(d) the identity of the zone; the purposes that may be carried out without development consent; the purposes that may not be carried out except with development consent; and the purposes that are prohibited within the zone. Any zone(s) applying to the land is/are listed below and/or in annexures.

(Note: If no zoning appears in this section see section 1(1) for zoning and land use details (under the Sydney Regional Environmental Plan or State Environmental Planning Policy that zones this property).)

Zone IN1 General Industrial (Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To promote development that makes efficient use of industrial land.
- To permit facilities that serve the daily recreation and convenience needs of the people who work in the surrounding industrial area.

2 Permitted without consent

Nil

3 Permitted with consent

Animal boarding or training establishments; Boat building and repair facilities; Car parks; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Kiosks; Landscaping material supplies; Light industries; Neighbourhood shops; Places of public worship; Plant nurseries; Oyster aquaculture; Recreation areas; Roads; Rural industries; Self-storage units; Signage; Storage premises; Take away food and drink premises; Tank-based aquaculture; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres

4 Prohibited

Hazardous industries; Offensive industries; Pond-based aquaculture Any other development not specified in item 2 or 3

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Under the terms of Clause 2.6 of Penrith Local Environmental Plan 2010 land may be subdivided but only with development consent, except for the exclusions detailed in the clause.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 4.1A of Penrith Local Environmental Plan 2010, despite any other provision of this plan, development consent must not be granted for dual occupancy on an internal lot in Zone R2 Low Density Residential.

Note 6: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 7: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Under the terms of Clause 7.1 of Penrith Local Environmental Plan 2010 (PLEP 2010) development consent is required for earthworks unless the work is exempt development under PLEP 2010 or another applicable environmental planning instrument, or the work is ancillary to other development for which development consent has been given.

Note 11: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 7.23 of Penrith Local Environmental Plan 2010.

2(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:

(Information is provided in this section only if any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

2(f) whether the land includes or comprises critical habitat:

(Information is provided in this section only if the land includes or comprises critical habitat.)

2(g) whether the land is in a conservation area (however described):

(Information is provided in this section only if the land is in a conservation area (however described).)

2(h) whether an item of environmental heritage (however described) is situated on the land:

(Information is provided in this section only if an item of environmental heritage (however described) is situated on the land.)

2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

(Information is provided in this section only if the land is within any zone under State Environmental Planning Policy (Sydney Region Growth Centres) 2006.)

3 COMPLYING DEVELOPMENT

HOUSING CODE

(The Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

RURAL HOUSING CODE

(The Rural Housing Code only applies if the land is within Zones RU1, RU2, RU3, RU4, RU6 or R5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Rural Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

LOW RISE MEDIUM DENSITY HOUSING CODE

(The Low Rise Medium Density Housing Code only applies if the land is within Zones R1, R2, R3 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Low Rise Medium Density Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Please note that Council has been deferred from the application of Part 3B of the Low Rise Medium Density Housing Code until 31 October 2019. That Part will not apply to Penrith Local Government Area during this time.

GREENFIELD HOUSING CODE

(The Greenfield Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.)

Complying development under the Greenfield Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations Code **may** be carried out on the land.

GENERAL DEVELOPMENT CODE

Complying development under the General Development Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL ALTERATIONS CODE

Complying development under the Commercial and Industrial Alterations Code **may** be carried out on the land.

SUBDIVISIONS CODE

Complying development under the Subdivisions Code **may** be carried out on the land.

DEMOLITION CODE

Complying development under the Demolition Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL (NEW BUILDINGS AND ADDITIONS) CODE

(The Commercial and Industrial (New Buildings and Additions) Code only applies if the land is within Zones B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4 or SP3 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Commercial and Industrial (New Buildings and Alterations) Code **may** be carried out on the land if the land is within one of the abovementioned zones.

FIRE SAFETY CODE

Complying development under the Fire Safety Code **may** be carried out on the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(NOTE: (1) Council has relied on Planning and Infrastructure Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

4 COASTAL PROTECTION

The land is not affected by the operation of sections 38 or 39 of the Coastal Protection Act 1979, to the extent that council has been so notified by the Department of Public Works.

5 MINE SUBSIDENCE

The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961.

6 ROAD WIDENING AND ROAD REALIGNMENT

The land is not affected by any road widening or road realignment under:

- (a) Division 2 of Part 3 of the Roads Act 1993, or
- (b) an environmental planning instrument, or
- (c) a resolution of council.

7 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(a) Council Policies

The land is affected by the Asbestos Policy adopted by Council.

The land is not affected by any other policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

(b) Other Public Authority Policies

The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.

The land is not affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of land slip, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

7A FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

(1) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) if such uses are permissible on the land. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(2) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for any other purpose not referred to in (1) above. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

8 LAND RESERVED FOR ACQUISITION

No environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

9 CONTRIBUTIONS PLANS

The Cultural Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith.

The Penrith City Local Open Space Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, excluding industrial areas and the release areas identified in Appendix B of the Plan (Penrith Lakes, Cranebrook, Sydney Regional Environmental Plan No. 30 - St Marys, Waterside, Thornton, the WELL Precinct, Glenmore Park and Erskine Park).

The Penrith City District Open Space Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, with the exclusion of industrial lands and the Penrith Lakes development site.

9A BIODIVERSITY CERTIFIED LAND

(Information is provided in this section only if the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*. (Note. biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.)

10 BIODIVERSITY STEWARDSHIP SITES

(Information is provided in this section only if Council has been notified by the Chief Executive of the Office of Environment and Heritage that the land is land to which a biobanking stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* relates. Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardships agreements under Part 5 of the *Biodiversity Conservation Act 2016*)

10A NATIVE VEGETATION CLEARING SET ASIDES

(Information is provided in this section only if Council has been notified of the existence of a set aside area by Local Land Services or it is registered in the public register under which section 60ZC of the *Local Land Services Act 2013* relates).

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

11 BUSH FIRE PRONE LAND

The land is not identified as bush fire prone land according to Council records.

12 PROPERTY VEGETATION PLANS

(Information is provided in this section only if Council has been notified that the land is land to which a property vegetation plan approved under the *Native Vegetation Act 2003* applies and continues in force.)

13 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

(Information is provided in this section only if Council has been notified that an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.)

14 DIRECTIONS UNDER PART 3A

(Information is provided in this section only if there is a direction by the Minister in force under section 75P(2)(c1) of the Act (repealed on 1st October 2011) that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect.)

15 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS AFFECTING SENIORS HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (seniors housing), of which the council is aware, issued under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 18(2) of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.)

16 SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

(Information is provided in this section only if there is a valid site compatibility certificate (infrastructure), of which council is aware, in respect of proposed development on the land.)

17 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 17(1) or 37(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 have been imposed as a condition of consent to a development application in respect of the land.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

18 PAPER SUBDIVISION INFORMATION

(Information is provided in this section only if a development plan adopted by a relevant authority applies to the land or is proposed to be subject to a consent ballot, or a subdivision order applies to the land.)

19 SITE VERIFICATION CERTIFICATES

(Information is provided in this section only if there is a current site verification certificate, of which council is aware, in respect of the land.)

NOTE: The following matters are prescribed by section 59(2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate

(a) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 - a copy of which has been provided to Council.)

Note: Section 10.7(5) information for this property may contain additional information regarding contamination issues.

20 LOOSE FILL ASBESTOS INSULATION

(Information is provided in this section only if there is a residential premises listed on the register of residential premises that contain or have contained loose-fill asbestos insulation (as required by Division 1A of Part 8 of the home Building Act 1989))

21 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

(Information is provided in this section only if Council is aware of any “affected building notice” and/or a “building product rectification order” in force for the land).

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Note: The Environmental Planning and Assessment Amendment Act 2017 commenced operation on the 1 March 2018. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017, and Environmental Planning and Assessment Regulation 2000.

Information is provided only to the extent that Council has been notified by the relevant government departments.

Note: This is a certificate under section 10.7 of the Environmental Planning and Assessment Act, 1979 and is only provided in accordance with that section of the Act.

Further information relating to the subject property can be provided under section 10.7(5) of the Act. If such further information is required Council indicates that a full certificate under sections 10.7(2) **and** 10.7(5) should be applied for. Contact Council for details as to obtaining the additional information.

Warwick Winn
General Manager

per



Please note:

Certain amendments to the Environmental Planning and Assessment Act 1979 No 203 (Act) commenced on 1 March 2018.

The Environmental Planning and Assessment (Amendment) Act 2017 No 60 makes structural changes to the Act and, as a consequence, the Act has been renumbered in a decimal format. For example, Section 149 Planning Certificates have become Section 10.7 Certificates. Some of the information in this certificate may refer to the previous version of the Act.

Council is committed to updating all relevant documents in a timely manner. This will include planning instruments, applications, approvals, orders, certificates, forms and other associated documents in both printed and electronic versions. Council is required to implement these changes and regrets any inconvenience caused to the local business, industry and the community.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Property No: 312762
Your Reference: LIR-837-843
Contact No.

Issue Date: 13 September 2019
Certificate No: 19/03617

Issued to: Ms E Heiden
602/122 Arthur Street
NORTH SYDNEY NSW 2060

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND

Parish: ROOTY HILL

Location: 12 Harris Street NORTH ST MARYS NSW 2760

Land Description: Lot 9 DP 29111

- PART 1 PRESCRIBED MATTERS -

In accordance with the provisions of Section 10.7 of the Act the following information is furnished in respect of the abovementioned land:

1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs

1(1) The name of each environmental planning instrument that applies to the carrying out of development on the land:

Penrith Local Environmental Plan 2010, published 22nd September 2010, as amended, applies to the land.

Sydney Regional Environmental Plan No.9 - Extractive Industry (No.2), gazetted 15 September 1995, as amended, applies to the local government area of Penrith.

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), gazetted 7 November 1997, as amended, applies to the local government area of Penrith (except land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies).

The following State environmental planning policies apply to the land (subject to the exclusions noted below):

State Environmental Planning Policy No.1 - Development Standards. (Note: This policy does not apply to the land to which Penrith Local Environmental Plan 2010 or State Environmental Planning Policy (Western Sydney Employment Area) 2009 apply.)

State Environmental Planning Policy No.19 - Bushland in Urban Areas. (Note: This policy does not apply to certain land referred to in the National Parks and Wildlife Act 1974 and the Forestry Act 1916.)

State Environmental Planning Policy No.21 - Caravan Parks.

State Environmental Planning Policy No.33 - Hazardous and Offensive Development.

State Environmental Planning Policy No.50 - Canal Estate Development. (Note: This policy does not apply to the land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies.

State Environmental Planning Policy No.55 - Remediation of Land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

State Environmental Planning Policy No.64 - Advertising and Signage.

State Environmental Planning Policy No.65 - Design Quality of Residential Apartment Development.

State Environmental Planning Policy No.70 - Affordable Housing (Revised Schemes).

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Note: This policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only as detailed in clause 4 of the policy.)

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.

State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2013.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007.

State Environmental Planning Policy (Infrastructure) 2007.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy (Affordable Rental Housing) 2009.

State Environmental Planning Policy (State and Regional Development) 2011.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.

State Environmental Planning Policy (Education Establishments and Child Care Centre Facilities) 2017.

State Environmental Planning Policy (Primary Production and Rural Development) 2019.

1(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act:

An Annual Update Amendment Planning Proposal applies to this land.

The Planning Proposal seeks to resolve several policy changes, contemporise certain elements and undertake “housekeeping” changes which are minor in nature. (See www.penrithcity.nsw.gov.au for details).

Draft State Environmental Planning Policy (Western Sydney Corridors) may apply to the land. Further information is available here: <https://www.transport.nsw.gov.au/corridors>.

On 22 June 2018, the NSW Government announced changes to the recommended alignments for the Western Sydney corridors, including continuing with the previously gazetted 1951 corridor for the Bells Line of Road Castlereagh Connection.

Draft State Environmental Planning Policy (Primary Production & Rural Development) applies to the land.

Draft State Environmental Planning Policy (Environment) applies to the land.

Draft State Environmental Planning Policy (Remediation of Land) applies to the land.

Draft Standard Instrument (Local Environmental Plans) Order 2006 applies to the land.

Draft State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 applies to the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

1(3) The name of each development control plan that applies to the carrying out of development on the land:

Penrith Development Control Plan 2014 applies to the land.

2 ZONING AND LAND USE UNDER RELEVANT LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

2(a)-(d) the identity of the zone; the purposes that may be carried out without development consent; the purposes that may not be carried out except with development consent; and the purposes that are prohibited within the zone. Any zone(s) applying to the land is/are listed below and/or in annexures.

(Note: If no zoning appears in this section see section 1(1) for zoning and land use details (under the Sydney Regional Environmental Plan or State Environmental Planning Policy that zones this property).)

Zone IN1 General Industrial (Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To promote development that makes efficient use of industrial land.
- To permit facilities that serve the daily recreation and convenience needs of the people who work in the surrounding industrial area.

2 Permitted without consent

Nil

3 Permitted with consent

Animal boarding or training establishments; Boat building and repair facilities; Car parks; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Kiosks; Landscaping material supplies; Light industries; Neighbourhood shops; Places of public worship; Plant nurseries; Oyster aquaculture; Recreation areas; Roads; Rural industries; Self-storage units; Signage; Storage premises; Take away food and drink premises; Tank-based aquaculture; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres

4 Prohibited

Hazardous industries; Offensive industries; Pond-based aquaculture Any other development not specified in item 2 or 3

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Under the terms of Clause 2.6 of Penrith Local Environmental Plan 2010 land may be subdivided but only with development consent, except for the exclusions detailed in the clause.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 4.1A of Penrith Local Environmental Plan 2010, despite any other provision of this plan, development consent must not be granted for dual occupancy on an internal lot in Zone R2 Low Density Residential.

Note 6: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 7: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Under the terms of Clause 7.1 of Penrith Local Environmental Plan 2010 (PLEP 2010) development consent is required for earthworks unless the work is exempt development under PLEP 2010 or another applicable environmental planning instrument, or the work is ancillary to other development for which development consent has been given.

Note 11: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 7.23 of Penrith Local Environmental Plan 2010.

2(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:

(Information is provided in this section only if any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

2(f) whether the land includes or comprises critical habitat:

(Information is provided in this section only if the land includes or comprises critical habitat.)

2(g) whether the land is in a conservation area (however described):

(Information is provided in this section only if the land is in a conservation area (however described).)

2(h) whether an item of environmental heritage (however described) is situated on the land:

(Information is provided in this section only if an item of environmental heritage (however described) is situated on the land.)

2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

(Information is provided in this section only if the land is within any zone under State Environmental Planning Policy (Sydney Region Growth Centres) 2006.)

3 COMPLYING DEVELOPMENT

HOUSING CODE

(The Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

RURAL HOUSING CODE

(The Rural Housing Code only applies if the land is within Zones RU1, RU2, RU3, RU4, RU6 or R5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Rural Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

LOW RISE MEDIUM DENSITY HOUSING CODE

(The Low Rise Medium Density Housing Code only applies if the land is within Zones R1, R2, R3 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Low Rise Medium Density Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Please note that Council has been deferred from the application of Part 3B of the Low Rise Medium Density Housing Code until 31 October 2019. That Part will not apply to Penrith Local Government Area during this time.

GREENFIELD HOUSING CODE

(The Greenfield Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.)

Complying development under the Greenfield Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations Code **may** be carried out on the land.

GENERAL DEVELOPMENT CODE

Complying development under the General Development Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL ALTERATIONS CODE

Complying development under the Commercial and Industrial Alterations Code **may** be carried out on the land.

SUBDIVISIONS CODE

Complying development under the Subdivisions Code **may** be carried out on the land.

DEMOLITION CODE

Complying development under the Demolition Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL (NEW BUILDINGS AND ADDITIONS) CODE

(The Commercial and Industrial (New Buildings and Additions) Code only applies if the land is within Zones B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4 or SP3 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Commercial and Industrial (New Buildings and Alterations) Code **may** be carried out on the land if the land is within one of the abovementioned zones.

FIRE SAFETY CODE

Complying development under the Fire Safety Code **may** be carried out on the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(NOTE: (1) Council has relied on Planning and Infrastructure Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

4 COASTAL PROTECTION

The land is not affected by the operation of sections 38 or 39 of the Coastal Protection Act 1979, to the extent that council has been so notified by the Department of Public Works.

5 MINE SUBSIDENCE

The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961.

6 ROAD WIDENING AND ROAD REALIGNMENT

The land is not affected by any road widening or road realignment under:

- (a) Division 2 of Part 3 of the Roads Act 1993, or
- (b) an environmental planning instrument, or
- (c) a resolution of council.

7 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(a) Council Policies

The land is affected by the Asbestos Policy adopted by Council.

The land is not affected by any other policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

(b) Other Public Authority Policies

The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.

The land is not affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of land slip, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

7A FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

(1) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) if such uses are permissible on the land. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(2) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for any other purpose not referred to in (1) above. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

8 LAND RESERVED FOR ACQUISITION

No environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

9 CONTRIBUTIONS PLANS

The Cultural Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith.

The Penrith City Local Open Space Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, excluding industrial areas and the release areas identified in Appendix B of the Plan (Penrith Lakes, Cranebrook, Sydney Regional Environmental Plan No. 30 - St Marys, Waterside, Thornton, the WELL Precinct, Glenmore Park and Erskine Park).

The Penrith City District Open Space Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, with the exclusion of industrial lands and the Penrith Lakes development site.

9A BIODIVERSITY CERTIFIED LAND

(Information is provided in this section only if the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*. (Note. biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.)

10 BIODIVERSITY STEWARDSHIP SITES

(Information is provided in this section only if Council has been notified by the Chief Executive of the Office of Environment and Heritage that the land is land to which a biobanking stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* relates. Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardships agreements under Part 5 of the *Biodiversity Conservation Act 2016*)

10A NATIVE VEGETATION CLEARING SET ASIDES

(Information is provided in this section only if Council has been notified of the existence of a set aside area by Local Land Services or it is registered in the public register under which section 60ZC of the *Local Land Services Act 2013* relates).

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

11 BUSH FIRE PRONE LAND

The land is not identified as bush fire prone land according to Council records.

12 PROPERTY VEGETATION PLANS

(Information is provided in this section only if Council has been notified that the land is land to which a property vegetation plan approved under the *Native Vegetation Act 2003* applies and continues in force.)

13 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

(Information is provided in this section only if Council has been notified that an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.)

14 DIRECTIONS UNDER PART 3A

(Information is provided in this section only if there is a direction by the Minister in force under section 75P(2)(c1) of the Act (repealed on 1st October 2011) that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect.)

15 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS AFFECTING SENIORS HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (seniors housing), of which the council is aware, issued under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 18(2) of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.)

16 SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

(Information is provided in this section only if there is a valid site compatibility certificate (infrastructure), of which council is aware, in respect of proposed development on the land.)

17 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 17(1) or 37(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 have been imposed as a condition of consent to a development application in respect of the land.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

18 PAPER SUBDIVISION INFORMATION

(Information is provided in this section only if a development plan adopted by a relevant authority applies to the land or is proposed to be subject to a consent ballot, or a subdivision order applies to the land.)

19 SITE VERIFICATION CERTIFICATES

(Information is provided in this section only if there is a current site verification certificate, of which council is aware, in respect of the land.)

NOTE: The following matters are prescribed by section 59(2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate

(a) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 - a copy of which has been provided to Council.)

Note: Section 10.7(5) information for this property may contain additional information regarding contamination issues.

20 LOOSE FILL ASBESTOS INSULATION

(Information is provided in this section only if there is a residential premises listed on the register of residential premises that contain or have contained loose-fill asbestos insulation (as required by Division 1A of Part 8 of the home Building Act 1989))

21 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

(Information is provided in this section only if Council is aware of any “affected building notice” and/or a “building product rectification order” in force for the land).

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Note: The Environmental Planning and Assessment Amendment Act 2017 commenced operation on the 1 March 2018. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017, and Environmental Planning and Assessment Regulation 2000.

Information is provided only to the extent that Council has been notified by the relevant government departments.

Note: This is a certificate under section 10.7 of the Environmental Planning and Assessment Act, 1979 and is only provided in accordance with that section of the Act.

Further information relating to the subject property can be provided under section 10.7(5) of the Act. If such further information is required Council indicates that a full certificate under sections 10.7(2) **and** 10.7(5) should be applied for. Contact Council for details as to obtaining the additional information.

Warwick Winn
General Manager

per



Please note:

Certain amendments to the Environmental Planning and Assessment Act 1979 No 203 (Act) commenced on 1 March 2018.

The Environmental Planning and Assessment (Amendment) Act 2017 No 60 makes structural changes to the Act and, as a consequence, the Act has been renumbered in a decimal format. For example, Section 149 Planning Certificates have become Section 10.7 Certificates. Some of the information in this certificate may refer to the previous version of the Act.

Council is committed to updating all relevant documents in a timely manner. This will include planning instruments, applications, approvals, orders, certificates, forms and other associated documents in both printed and electronic versions. Council is required to implement these changes and regrets any inconvenience caused to the local business, industry and the community.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Property No: 312815
Your Reference: LIR-837-843
Contact No.

Issue Date: 13 September 2019
Certificate No: 19/03618

Issued to: Ms E Heiden
602/122 Arthur Street
NORTH SYDNEY NSW 2060

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND

Parish: ROOTY HILL

Location: 6-8 Harris Street NORTH ST MARYS NSW 2760

Land Description: Lot 10 DP 29111

- PART 1 PRESCRIBED MATTERS -

In accordance with the provisions of Section 10.7 of the Act the following information is furnished in respect of the abovementioned land:

1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs

1(1) The name of each environmental planning instrument that applies to the carrying out of development on the land:

Penrith Local Environmental Plan 2010, published 22nd September 2010, as amended, applies to the land.

Sydney Regional Environmental Plan No.9 - Extractive Industry (No.2), gazetted 15 September 1995, as amended, applies to the local government area of Penrith.

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), gazetted 7 November 1997, as amended, applies to the local government area of Penrith (except land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies).

The following State environmental planning policies apply to the land (subject to the exclusions noted below):

State Environmental Planning Policy No.1 - Development Standards. (Note: This policy does not apply to the land to which Penrith Local Environmental Plan 2010 or State Environmental Planning Policy (Western Sydney Employment Area) 2009 apply.)

State Environmental Planning Policy No.19 - Bushland in Urban Areas. (Note: This policy does not apply to certain land referred to in the National Parks and Wildlife Act 1974 and the Forestry Act 1916.)

State Environmental Planning Policy No.21 - Caravan Parks.

State Environmental Planning Policy No.33 - Hazardous and Offensive Development.

State Environmental Planning Policy No.50 - Canal Estate Development. (Note: This policy does not apply to the land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies.

State Environmental Planning Policy No.55 - Remediation of Land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

State Environmental Planning Policy No.64 - Advertising and Signage.

State Environmental Planning Policy No.65 - Design Quality of Residential Apartment Development.

State Environmental Planning Policy No.70 - Affordable Housing (Revised Schemes).

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Note: This policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only as detailed in clause 4 of the policy.)

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.

State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2013.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007.

State Environmental Planning Policy (Infrastructure) 2007.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy (Affordable Rental Housing) 2009.

State Environmental Planning Policy (State and Regional Development) 2011.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.

State Environmental Planning Policy (Education Establishments and Child Care Centre Facilities) 2017.

State Environmental Planning Policy (Primary Production and Rural Development) 2019.

1(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act:

An Annual Update Amendment Planning Proposal applies to this land.

The Planning Proposal seeks to resolve several policy changes, contemporise certain elements and undertake “housekeeping” changes which are minor in nature. (See www.penrithcity.nsw.gov.au for details).

Draft State Environmental Planning Policy (Western Sydney Corridors) may apply to the land. Further information is available here: <https://www.transport.nsw.gov.au/corridors>.

On 22 June 2018, the NSW Government announced changes to the recommended alignments for the Western Sydney corridors, including continuing with the previously gazetted 1951 corridor for the Bells Line of Road Castlereagh Connection.

Draft State Environmental Planning Policy (Primary Production & Rural Development) applies to the land.

Draft State Environmental Planning Policy (Environment) applies to the land.

Draft State Environmental Planning Policy (Remediation of Land) applies to the land.

Draft Standard Instrument (Local Environmental Plans) Order 2006 applies to the land.

Draft State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 applies to the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

1(3) The name of each development control plan that applies to the carrying out of development on the land:

Penrith Development Control Plan 2014 applies to the land.

2 ZONING AND LAND USE UNDER RELEVANT LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

2(a)-(d) the identity of the zone; the purposes that may be carried out without development consent; the purposes that may not be carried out except with development consent; and the purposes that are prohibited within the zone. Any zone(s) applying to the land is/are listed below and/or in annexures.

(Note: If no zoning appears in this section see section 1(1) for zoning and land use details (under the Sydney Regional Environmental Plan or State Environmental Planning Policy that zones this property).)

Zone IN1 General Industrial (Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To promote development that makes efficient use of industrial land.
- To permit facilities that serve the daily recreation and convenience needs of the people who work in the surrounding industrial area.

2 Permitted without consent

Nil

3 Permitted with consent

Animal boarding or training establishments; Boat building and repair facilities; Car parks; Depots; Environmental facilities; Environmental protection works; Flood mitigation works; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial retail outlets; Industrial training facilities; Industries; Kiosks; Landscaping material supplies; Light industries; Neighbourhood shops; Places of public worship; Plant nurseries; Oyster aquaculture; Recreation areas; Roads; Rural industries; Self-storage units; Signage; Storage premises; Take away food and drink premises; Tank-based aquaculture; Timber yards; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres

4 Prohibited

Hazardous industries; Offensive industries; Pond-based aquaculture Any other development not specified in item 2 or 3

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Under the terms of Clause 2.6 of Penrith Local Environmental Plan 2010 land may be subdivided but only with development consent, except for the exclusions detailed in the clause.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 4.1A of Penrith Local Environmental Plan 2010, despite any other provision of this plan, development consent must not be granted for dual occupancy on an internal lot in Zone R2 Low Density Residential.

Note 6: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 7: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Under the terms of Clause 7.1 of Penrith Local Environmental Plan 2010 (PLEP 2010) development consent is required for earthworks unless the work is exempt development under PLEP 2010 or another applicable environmental planning instrument, or the work is ancillary to other development for which development consent has been given.

Note 11: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 7.23 of Penrith Local Environmental Plan 2010.

2(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:

(Information is provided in this section only if any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

2(f) whether the land includes or comprises critical habitat:

(Information is provided in this section only if the land includes or comprises critical habitat.)

2(g) whether the land is in a conservation area (however described):

(Information is provided in this section only if the land is in a conservation area (however described).)

2(h) whether an item of environmental heritage (however described) is situated on the land:

(Information is provided in this section only if an item of environmental heritage (however described) is situated on the land.)

2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

(Information is provided in this section only if the land is within any zone under State Environmental Planning Policy (Sydney Region Growth Centres) 2006.)

3 COMPLYING DEVELOPMENT

HOUSING CODE

(The Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

RURAL HOUSING CODE

(The Rural Housing Code only applies if the land is within Zones RU1, RU2, RU3, RU4, RU6 or R5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Rural Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

LOW RISE MEDIUM DENSITY HOUSING CODE

(The Low Rise Medium Density Housing Code only applies if the land is within Zones R1, R2, R3 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Low Rise Medium Density Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Please note that Council has been deferred from the application of Part 3B of the Low Rise Medium Density Housing Code until 31 October 2019. That Part will not apply to Penrith Local Government Area during this time.

GREENFIELD HOUSING CODE

(The Greenfield Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.)

Complying development under the Greenfield Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations Code **may** be carried out on the land.

GENERAL DEVELOPMENT CODE

Complying development under the General Development Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL ALTERATIONS CODE

Complying development under the Commercial and Industrial Alterations Code **may** be carried out on the land.

SUBDIVISIONS CODE

Complying development under the Subdivisions Code **may** be carried out on the land.

DEMOLITION CODE

Complying development under the Demolition Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL (NEW BUILDINGS AND ADDITIONS) CODE

(The Commercial and Industrial (New Buildings and Additions) Code only applies if the land is within Zones B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4 or SP3 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Commercial and Industrial (New Buildings and Alterations) Code **may** be carried out on the land if the land is within one of the abovementioned zones.

FIRE SAFETY CODE

Complying development under the Fire Safety Code **may** be carried out on the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(NOTE: (1) Council has relied on Planning and Infrastructure Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

4 COASTAL PROTECTION

The land is not affected by the operation of sections 38 or 39 of the Coastal Protection Act 1979, to the extent that council has been so notified by the Department of Public Works.

5 MINE SUBSIDENCE

The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961.

6 ROAD WIDENING AND ROAD REALIGNMENT

The land is not affected by any road widening or road realignment under:

- (a) Division 2 of Part 3 of the Roads Act 1993, or
- (b) an environmental planning instrument, or
- (c) a resolution of council.

7 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(a) Council Policies

The land is affected by the Asbestos Policy adopted by Council.

The land is not affected by any other policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

(b) Other Public Authority Policies

The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.

The land is not affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of land slip, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

7A FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

(1) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) if such uses are permissible on the land. Council reserves the right, however, to apply flood

PLANNING CERTIFICATE UNDER SECTION 10.7**Environmental Planning and Assessment Act, 1979**

related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

(2) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for any other purpose not referred to in (1) above. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

8 LAND RESERVED FOR ACQUISITION

No environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

9 CONTRIBUTIONS PLANS

The Cultural Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith.

The Penrith City Local Open Space Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, excluding industrial areas and the release areas identified in Appendix B of the Plan (Penrith Lakes, Cranebrook, Sydney Regional Environmental Plan No. 30 - St Marys, Waterside, Thornton, the WELL Precinct, Glenmore Park and Erskine Park).

The Penrith City District Open Space Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, with the exclusion of industrial lands and the Penrith Lakes development site.

9A BIODIVERSITY CERTIFIED LAND

(Information is provided in this section only if the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*. (Note. biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.)

10 BIODIVERSITY STEWARDSHIP SITES

(Information is provided in this section only if Council has been notified by the Chief Executive of the Office of Environment and Heritage that the land is land to which a biobanking stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* relates. Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardships agreements under Part 5 of the *Biodiversity Conservation Act 2016*)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

10A NATIVE VEGETATION CLEARING SET ASIDES

(Information is provided in this section only if Council has been notified of the existence of a set aside area by Local Land Services or it is registered in the public register under which section 60ZC of the *Local Land Services Act 2013* relates).

11 BUSH FIRE PRONE LAND

The land is not identified as bush fire prone land according to Council records.

12 PROPERTY VEGETATION PLANS

(Information is provided in this section only if Council has been notified that the land is land to which a property vegetation plan approved under the *Native Vegetation Act 2003* applies and continues in force.)

13 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

(Information is provided in this section only if Council has been notified that an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.)

14 DIRECTIONS UNDER PART 3A

(Information is provided in this section only if there is a direction by the Minister in force under section 75P(2)(c1) of the Act (repealed on 1st October 2011) that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect.)

15 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS AFFECTING SENIORS HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (seniors housing), of which the council is aware, issued under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 18(2) of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.)

16 SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

(Information is provided in this section only if there is a valid site compatibility certificate (infrastructure), of which council is aware, in respect of proposed development on the land.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

17 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 17(1) or 37(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 have been imposed as a condition of consent to a development application in respect of the land.)

18 PAPER SUBDIVISION INFORMATION

(Information is provided in this section only if a development plan adopted by a relevant authority applies to the land or is proposed to be subject to a consent ballot, or a subdivision order applies to the land.)

19 SITE VERIFICATION CERTIFICATES

(Information is provided in this section only if there is a current site verification certificate, of which council is aware, in respect of the land.)

NOTE: The following matters are prescribed by section 59(2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate

(a) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 - a copy of which has been provided to Council.)

Note: Section 10.7(5) information for this property may contain additional information regarding contamination issues.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

20 LOOSE FILL ASBESTOS INSULATION

(Information is provided in this section only if there is a residential premises listed on the register of residential premises that contain or have contained loose-fill asbestos insulation (as required by Division 1A of Part 8 of the home Building Act 1989))

21 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

(Information is provided in this section only if Council is aware of any “affected building notice” and/or a “building product rectification order” in force for the land).

Note: The Environmental Planning and Assessment Amendment Act 2017 commenced operation on the 1 March 2018. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017, and Environmental Planning and Assessment Regulation 2000.

Information is provided only to the extent that Council has been notified by the relevant government departments.

Note: This is a certificate under section 10.7 of the Environmental Planning and Assessment Act, 1979 and is only provided in accordance with that section of the Act.

Further information relating to the subject property can be provided under section 10.7(5) of the Act. If such further information is required Council indicates that a full certificate under sections 10.7(2) **and** 10.7(5) should be applied for.

Contact Council for details as to obtaining the additional information.

Warwick Winn
General Manager

per



Please note:

Certain amendments to the Environmental Planning and Assessment Act 1979 No 203 (Act) commenced on 1 March 2018.

The Environmental Planning and Assessment (Amendment) Act 2017 No 60 makes structural changes to the Act and, as a consequence, the Act has been renumbered in a decimal format. For example, Section 149 Planning Certificates have become Section 10.7 Certificates. Some of the information in this certificate may refer to the previous version of the Act.

Council is committed to updating all relevant documents in a timely manner. This will include planning instruments, applications, approvals, orders, certificates, forms and other associated documents in both printed and electronic versions. Council is required to implement these changes and regrets any inconvenience caused to the local business, industry and the community.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Property No: 789961
Your Reference: LIR-837-843
Contact No.

Issue Date: 13 September 2019
Certificate No: 19/03619

Issued to: Ms E Heiden
602/122 Arthur Street
NORTH SYDNEY NSW 2060

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND **Parish:** ROOTY HILL

Location: 11-13 Chesham Street ST MARYS NSW 2760

Land Description: Lot 2 DP 542707

- PART 1 PRESCRIBED MATTERS -

In accordance with the provisions of Section 10.7 of the Act the following information is furnished in respect of the abovementioned land:

1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs

1(1) The name of each environmental planning instrument that applies to the carrying out of development on the land:

Penrith Local Environmental Plan 2010, published 22nd September 2010, as amended, applies to the land.

Sydney Regional Environmental Plan No.9 - Extractive Industry (No.2), gazetted 15 September 1995, as amended, applies to the local government area of Penrith.

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), gazetted 7 November 1997, as amended, applies to the local government area of Penrith (except land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies).

The following State environmental planning policies apply to the land (subject to the exclusions noted below):

State Environmental Planning Policy No.1 - Development Standards. (Note: This policy does not apply to the land to which Penrith Local Environmental Plan 2010 or State Environmental Planning Policy (Western Sydney Employment Area) 2009 apply.)

State Environmental Planning Policy No.19 - Bushland in Urban Areas. (Note: This policy does not apply to certain land referred to in the National Parks and Wildlife Act 1974 and the Forestry Act 1916.)

State Environmental Planning Policy No.21 - Caravan Parks.

State Environmental Planning Policy No.33 - Hazardous and Offensive Development.

State Environmental Planning Policy No.50 - Canal Estate Development. (Note: This policy does not apply to the land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies.

State Environmental Planning Policy No.55 - Remediation of Land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

State Environmental Planning Policy No.64 - Advertising and Signage.

State Environmental Planning Policy No.65 - Design Quality of Residential Apartment Development.

State Environmental Planning Policy No.70 - Affordable Housing (Revised Schemes).

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Note: This policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only as detailed in clause 4 of the policy.)

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.

State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2013.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007.

State Environmental Planning Policy (Infrastructure) 2007.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy (Affordable Rental Housing) 2009.

State Environmental Planning Policy (State and Regional Development) 2011.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.

State Environmental Planning Policy (Education Establishments and Child Care Centre Facilities) 2017.

State Environmental Planning Policy (Primary Production and Rural Development) 2019.

1(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act:

An Annual Update Amendment Planning Proposal applies to this land.

The Planning Proposal seeks to resolve several policy changes, contemporise certain elements and undertake “housekeeping” changes which are minor in nature. (See www.penrithcity.nsw.gov.au for details).

Draft State Environmental Planning Policy (Western Sydney Corridors) may apply to the land. Further information is available here: <https://www.transport.nsw.gov.au/corridors>.

On 22 June 2018, the NSW Government announced changes to the recommended alignments for the Western Sydney corridors, including continuing with the previously gazetted 1951 corridor for the Bells Line of Road Castlereagh Connection.

Draft State Environmental Planning Policy (Primary Production & Rural Development) applies to the land.

Draft State Environmental Planning Policy (Environment) applies to the land.

Draft State Environmental Planning Policy (Remediation of Land) applies to the land.

Draft Standard Instrument (Local Environmental Plans) Order 2006 applies to the land.

Draft State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 applies to the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

1(3) The name of each development control plan that applies to the carrying out of development on the land:

Penrith Development Control Plan 2014 applies to the land.

2 ZONING AND LAND USE UNDER RELEVANT LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

2(a)-(d) the identity of the zone; the purposes that may be carried out without development consent; the purposes that may not be carried out except with development consent; and the purposes that are prohibited within the zone. Any zone(s) applying to the land is/are listed below and/or in annexures.

(Note: If no zoning appears in this section see section 1(1) for zoning and land use details (under the Sydney Regional Environmental Plan or State Environmental Planning Policy that zones this property).)

Zone R4 High Density Residential (Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide for the housing needs of the community within a high density residential environment.
- To provide a variety of housing types within a high density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To ensure that a high level of residential amenity is achieved and maintained.
- To encourage the provision of affordable housing.
- To ensure that development reflects the desired future character and dwelling densities of the area.

2 Permitted without consent

Home occupations

3 Permitted with consent

Boarding houses; Building identification signs; Business identification signs; Car parks; Centre-based child care facilities; Community facilities; Emergency services facilities; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Home-based child care; Home businesses; Information and education facilities; Neighbourhood shops; Oyster aquaculture; Places of public worship; Recreation areas; Recreation facilities (indoor); Residential accommodation; Respite day care centres; Roads; Shop top housing

4 Prohibited

Pond-based aquaculture; Rural workers' dwellings; Tank-based aquaculture; Any other development not specified in item 2 or 3

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Under the terms of Clause 2.6 of Penrith Local Environmental Plan 2010 land may be subdivided but only with development consent, except for the exclusions detailed in the clause.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 4.1A of Penrith Local Environmental Plan 2010, despite any other provision of this plan, development consent must not be granted for dual occupancy on an internal lot in Zone R2 Low Density Residential.

Note 6: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 7: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Under the terms of Clause 7.1 of Penrith Local Environmental Plan 2010 (PLEP 2010) development consent is required for earthworks unless the work is exempt development under PLEP 2010 or another applicable environmental planning instrument, or the work is ancillary to other development for which development consent has been given.

Note 11: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 7.23 of Penrith Local Environmental Plan 2010.

2(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:

(Information is provided in this section only if any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

2(f) whether the land includes or comprises critical habitat:

(Information is provided in this section only if the land includes or comprises critical habitat.)

2(g) whether the land is in a conservation area (however described):

(Information is provided in this section only if the land is in a conservation area (however described).)

2(h) whether an item of environmental heritage (however described) is situated on the land:

(Information is provided in this section only if an item of environmental heritage (however described) is situated on the land.)

2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

(Information is provided in this section only if the land is within any zone under State Environmental Planning Policy (Sydney Region Growth Centres) 2006.)

3 COMPLYING DEVELOPMENT

HOUSING CODE

(The Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

RURAL HOUSING CODE

(The Rural Housing Code only applies if the land is within Zones RU1, RU2, RU3, RU4, RU6 or R5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Rural Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

LOW RISE MEDIUM DENSITY HOUSING CODE

(The Low Rise Medium Density Housing Code only applies if the land is within Zones R1, R2, R3 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Low Rise Medium Density Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Please note that Council has been deferred from the application of Part 3B of the Low Rise Medium Density Housing Code until 31 October 2019. That Part will not apply to Penrith Local Government Area during this time.

GREENFIELD HOUSING CODE

(The Greenfield Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.)

Complying development under the Greenfield Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations Code **may** be carried out on the land.

GENERAL DEVELOPMENT CODE

Complying development under the General Development Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL ALTERATIONS CODE

Complying development under the Commercial and Industrial Alterations Code **may** be carried out on the land.

SUBDIVISIONS CODE

Complying development under the Subdivisions Code **may** be carried out on the land.

DEMOLITION CODE

Complying development under the Demolition Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL (NEW BUILDINGS AND ADDITIONS) CODE

(The Commercial and Industrial (New Buildings and Additions) Code only applies if the land is within Zones B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4 or SP3 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Commercial and Industrial (New Buildings and Alterations) Code **may** be carried out on the land if the land is within one of the abovementioned zones.

FIRE SAFETY CODE

Complying development under the Fire Safety Code **may** be carried out on the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(NOTE: (1) Council has relied on Planning and Infrastructure Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

4 COASTAL PROTECTION

The land is not affected by the operation of sections 38 or 39 of the Coastal Protection Act 1979, to the extent that council has been so notified by the Department of Public Works.

5 MINE SUBSIDENCE

The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961.

6 ROAD WIDENING AND ROAD REALIGNMENT

The land is not affected by any road widening or road realignment under:

- (a) Division 2 of Part 3 of the Roads Act 1993, or
- (b) an environmental planning instrument, or
- (c) a resolution of council.

7 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(a) Council Policies

The land is affected by the Asbestos Policy adopted by Council.

The land is not affected by any other policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

(b) Other Public Authority Policies

The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.

The land is not affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of land slip, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

7A FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

(1) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) if such uses are permissible on the land. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

PLANNING CERTIFICATE UNDER SECTION 10.7**Environmental Planning and Assessment Act, 1979**

(2) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for any other purpose not referred to in (1) above. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

8 LAND RESERVED FOR ACQUISITION

No environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

9 CONTRIBUTIONS PLANS

The Cultural Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith.

The Penrith City Local Open Space Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, excluding industrial areas and the release areas identified in Appendix B of the Plan (Penrith Lakes, Cranebrook, Sydney Regional Environmental Plan No. 30 - St Marys, Waterside, Thornton, the WELL Precinct, Glenmore Park and Erskine Park).

The Penrith City District Open Space Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, with the exclusion of industrial lands and the Penrith Lakes development site.

9A BIODIVERSITY CERTIFIED LAND

(Information is provided in this section only if the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*. (Note. biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.)

10 BIODIVERSITY STEWARDSHIP SITES

(Information is provided in this section only if Council has been notified by the Chief Executive of the Office of Environment and Heritage that the land is land to which a biobanking stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* relates. Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardships agreements under Part 5 of the *Biodiversity Conservation Act 2016*)

10A NATIVE VEGETATION CLEARING SET ASIDES

(Information is provided in this section only if Council has been notified of the existence of a set aside area by Local Land Services or it is registered in the public register under which section 60ZC of the *Local Land Services Act 2013* relates).

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

11 BUSH FIRE PRONE LAND

The land is not identified as bush fire prone land according to Council records.

12 PROPERTY VEGETATION PLANS

(Information is provided in this section only if Council has been notified that the land is land to which a property vegetation plan approved under the *Native Vegetation Act 2003* applies and continues in force.)

13 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

(Information is provided in this section only if Council has been notified that an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.)

14 DIRECTIONS UNDER PART 3A

(Information is provided in this section only if there is a direction by the Minister in force under section 75P(2)(c1) of the Act (repealed on 1st October 2011) that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect.)

15 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS AFFECTING SENIORS HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (seniors housing), of which the council is aware, issued under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 18(2) of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.)

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(Information is provided in this section only if there is a valid site compatibility certificate (infrastructure), of which council is aware, in respect of proposed development on the land.)

17 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 17(1) or 37(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 have been imposed as a condition of consent to a development application in respect of the land.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

18 PAPER SUBDIVISION INFORMATION

(Information is provided in this section only if a development plan adopted by a relevant authority applies to the land or is proposed to be subject to a consent ballot, or a subdivision order applies to the land.)

19 SITE VERIFICATION CERTIFICATES

(Information is provided in this section only if there is a current site verification certificate, of which council is aware, in respect of the land.)

NOTE: The following matters are prescribed by section 59(2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate

(a) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 - a copy of which has been provided to Council.)

Note: Section 10.7(5) information for this property may contain additional information regarding contamination issues.

20 LOOSE FILL ASBESTOS INSULATION

(Information is provided in this section only if there is a residential premises listed on the register of residential premises that contain or have contained loose-fill asbestos insulation (as required by Division 1A of Part 8 of the home Building Act 1989))

21 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

(Information is provided in this section only if Council is aware of any “affected building notice” and/or a “building product rectification order” in force for the land).

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Note: The Environmental Planning and Assessment Amendment Act 2017 commenced operation on the 1 March 2018. As a consequence of this Act the information contained in this certificate needs to be read in conjunction with the provisions of the Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017, and Environmental Planning and Assessment Regulation 2000.

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Warwick Winn
General Manager

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Please note:

Certain amendments to the Environmental Planning and Assessment Act 1979 No 203 (Act) commenced on 1 March 2018.

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Council is committed to updating all relevant documents in a timely manner. This will include planning instruments, applications, approvals, orders, certificates, forms and other associated documents in both printed and electronic versions. Council is required to implement these changes and regrets any inconvenience caused to the local business, industry and the community.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Property No: 689339
Your Reference: LIR-837-843
Contact No.

Issue Date: 13 September 2019
Certificate No: 19/03620

Issued to: Ms E Heiden
602/122 Arthur Street
NORTH SYDNEY NSW 2060

PRECINCT 2010

DESCRIPTION OF LAND

County: CUMBERLAND **Parish:** ROOTY HILL

Location: 45 Station Street ST MARYS NSW 2760

Land Description: Lot 9 DP 840717

- PART 1 PRESCRIBED MATTERS -

In accordance with the provisions of Section 10.7 of the Act the following information is furnished in respect of the abovementioned land:

1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPs

1(1) The name of each environmental planning instrument that applies to the carrying out of development on the land:

Penrith Local Environmental Plan 2010, published 22nd September 2010, as amended, applies to the land.

Sydney Regional Environmental Plan No.9 - Extractive Industry (No.2), gazetted 15 September 1995, as amended, applies to the local government area of Penrith.

Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2 - 1997), gazetted 7 November 1997, as amended, applies to the local government area of Penrith (except land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies).

The following State environmental planning policies apply to the land (subject to the exclusions noted below):

State Environmental Planning Policy No.1 - Development Standards. (Note: This policy does not apply to the land to which Penrith Local Environmental Plan 2010 or State Environmental Planning Policy (Western Sydney Employment Area) 2009 apply.)

State Environmental Planning Policy No.19 - Bushland in Urban Areas. (Note: This policy does not apply to certain land referred to in the National Parks and Wildlife Act 1974 and the Forestry Act 1916.)

State Environmental Planning Policy No.21 - Caravan Parks.

State Environmental Planning Policy No.33 - Hazardous and Offensive Development.

State Environmental Planning Policy No.50 - Canal Estate Development. (Note: This policy does not apply to the land to which State Environmental Planning Policy (Penrith Lakes Scheme) 1989 applies.

State Environmental Planning Policy No.55 - Remediation of Land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

State Environmental Planning Policy No.64 - Advertising and Signage.

State Environmental Planning Policy No.65 - Design Quality of Residential Apartment Development.

State Environmental Planning Policy No.70 - Affordable Housing (Revised Schemes).

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (Note: This policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only as detailed in clause 4 of the policy.)

State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004.

State Environmental Planning Policy (State Significant Precincts) 2005.

State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2013.

State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007.

State Environmental Planning Policy (Infrastructure) 2007.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

State Environmental Planning Policy (Affordable Rental Housing) 2009.

State Environmental Planning Policy (State and Regional Development) 2011.

State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017.

State Environmental Planning Policy (Education Establishments and Child Care Centre Facilities) 2017.

State Environmental Planning Policy (Primary Production and Rural Development) 2019.

1(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act:

An Annual Update Amendment Planning Proposal applies to this land.

The Planning Proposal seeks to resolve several policy changes, contemporise certain elements and undertake “housekeeping” changes which are minor in nature. (See www.penrithcity.nsw.gov.au for details).

Draft State Environmental Planning Policy (Western Sydney Corridors) may apply to the land. Further information is available here: <https://www.transport.nsw.gov.au/corridors>.

On 22 June 2018, the NSW Government announced changes to the recommended alignments for the Western Sydney corridors, including continuing with the previously gazetted 1951 corridor for the Bells Line of Road Castlereagh Connection.

Draft State Environmental Planning Policy (Primary Production & Rural Development) applies to the land.

Draft State Environmental Planning Policy (Environment) applies to the land.

Draft State Environmental Planning Policy (Remediation of Land) applies to the land.

Draft Standard Instrument (Local Environmental Plans) Order 2006 applies to the land.

Draft State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 applies to the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

1(3) The name of each development control plan that applies to the carrying out of development on the land:

Penrith Development Control Plan 2014 applies to the land.

2 ZONING AND LAND USE UNDER RELEVANT LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (however described):

2(a)-(d) the identity of the zone; the purposes that may be carried out without development consent; the purposes that may not be carried out except with development consent; and the purposes that are prohibited within the zone. Any zone(s) applying to the land is/are listed below and/or in annexures.

(Note: If no zoning appears in this section see section 1(1) for zoning and land use details (under the Sydney Regional Environmental Plan or State Environmental Planning Policy that zones this property).)

Zone B4 Mixed Use

(Penrith Local Environmental Plan 2010)

1 Objectives of zone

- To provide a mixture of compatible land uses.
- To integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.
- To minimise conflict between land uses within the zone and land uses within adjoining zones.
- To create opportunities to improve public amenity.
- To provide a wide range of retail, business, office, residential, community and other suitable land uses.

2 Permitted without consent

Home occupations

3 Permitted with consent

Amusement centres; Boarding houses; Car parks; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Environmental facilities; Environmental protection works; Flood mitigation works; Function centres; Home-based child care; Home businesses; Hostels; Hotel or motel accommodation; Information and education facilities; Medical centres; Mortuaries; Multi dwelling housing; Oyster aquaculture; Passenger transport facilities; Places of public worship; Public administration buildings; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Registered clubs; Residential accommodation; Residential flat buildings; Respite day care centres; Restricted premises; Roads; Seniors housing; Serviced apartments; Sex services premises; Shop top housing; Signage; Tank-based aquaculture; Veterinary hospitals

4 Prohibited

Pond-based aquaculture; Rural workers' dwellings; Any development not specified in item 2 or 3

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Additional information relating to Penrith Local Environmental Plan 2010

Note 1: Under the terms of Clause 2.4 of Penrith Local Environmental Plan 2010 development may be carried out on unzoned land only with development consent.

Note 2: Under the terms of Clause 2.6 of Penrith Local Environmental Plan 2010 land may be subdivided but only with development consent, except for the exclusions detailed in the clause.

Note 3: Under the terms of Clause 2.7 of Penrith Local Environmental Plan 2010 the demolition of a building or work may be carried out only with development consent.

Note 4: A temporary use may be permitted with development consent subject to the requirements of Clause 2.8 of Penrith Local Environmental Plan 2010.

Note 5: Under the terms of Clause 4.1A of Penrith Local Environmental Plan 2010, despite any other provision of this plan, development consent must not be granted for dual occupancy on an internal lot in Zone R2 Low Density Residential.

Note 6: Under the terms of Clause 5.1 of Penrith Local Environmental Plan 2010 development on land acquired by an authority of the State under the owner-initiated acquisition provisions may, before it is used for the purpose for which it is reserved, be carried out, with development consent, for any purpose.

Note 7: Under the terms of Clause 5.3 of Penrith Local Environmental Plan 2010 development consent may be granted to development of certain land for any purpose that may be carried out in an adjoining zone.

Note 8: Clause 5.10 of Penrith Local Environmental Plan 2010 details when development consent is required/not required in relation to heritage conservation.

Note 9: Under the terms of Clause 5.11 of Penrith Local Environmental Plan 2010 bush fire hazard reduction work authorised by the *Rural Fires Act 1997* may be carried out on any land without development consent.

Note 10: Under the terms of Clause 7.1 of Penrith Local Environmental Plan 2010 (PLEP 2010) development consent is required for earthworks unless the work is exempt development under PLEP 2010 or another applicable environmental planning instrument, or the work is ancillary to other development for which development consent has been given.

Note 11: Sex services premises and restricted premises may only be permitted subject to the requirements of Clause 7.23 of Penrith Local Environmental Plan 2010.

2(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed:

(Information is provided in this section only if any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed.)

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

2(f) whether the land includes or comprises critical habitat:

(Information is provided in this section only if the land includes or comprises critical habitat.)

2(g) whether the land is in a conservation area (however described):

(Information is provided in this section only if the land is in a conservation area (however described).)

2(h) whether an item of environmental heritage (however described) is situated on the land:

(Information is provided in this section only if an item of environmental heritage (however described) is situated on the land.)

2A ZONING AND LAND USE UNDER STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGION GROWTH CENTRES) 2006

(Information is provided in this section only if the land is within any zone under State Environmental Planning Policy (Sydney Region Growth Centres) 2006.)

3 COMPLYING DEVELOPMENT

HOUSING CODE

(The Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

RURAL HOUSING CODE

(The Rural Housing Code only applies if the land is within Zones RU1, RU2, RU3, RU4, RU6 or R5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Rural Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

LOW RISE MEDIUM DENSITY HOUSING CODE

(The Low Rise Medium Density Housing Code only applies if the land is within Zones R1, R2, R3 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Low Rise Medium Density Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

Please note that Council has been deferred from the application of Part 3B of the Low Rise Medium Density Housing Code until 31 October 2019. That Part will not apply to Penrith Local Government Area during this time.

GREENFIELD HOUSING CODE

(The Greenfield Housing Code only applies if the land is within Zones R1, R2, R3, R4 or RU5 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.)

Complying development under the Greenfield Housing Code **may** be carried out on the land if the land is within one of the abovementioned zones, and if the land is identified as a Greenfield Housing Code Area by the Greenfield Housing Code Area Map.

HOUSING ALTERATIONS CODE

Complying development under the Housing Alterations Code **may** be carried out on the land.

GENERAL DEVELOPMENT CODE

Complying development under the General Development Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL ALTERATIONS CODE

Complying development under the Commercial and Industrial Alterations Code **may** be carried out on the land.

SUBDIVISIONS CODE

Complying development under the Subdivisions Code **may** be carried out on the land.

DEMOLITION CODE

Complying development under the Demolition Code **may** be carried out on the land.

COMMERCIAL AND INDUSTRIAL (NEW BUILDINGS AND ADDITIONS) CODE

(The Commercial and Industrial (New Buildings and Additions) Code only applies if the land is within Zones B1, B2, B3, B4, B5, B6, B7, B8, IN1, IN2, IN3, IN4 or SP3 under Penrith Local Environmental Plan 2010 or an equivalent zone in a non standard template planning instrument.)

Complying development under the Commercial and Industrial (New Buildings and Alterations) Code **may** be carried out on the land if the land is within one of the abovementioned zones.

FIRE SAFETY CODE

Complying development under the Fire Safety Code **may** be carried out on the land.

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(NOTE: (1) Council has relied on Planning and Infrastructure Circulars and Fact Sheets in the preparation of this information. Applicants should seek their own legal advice in relation to this matter with particular reference to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

(2) Penrith Local Environmental Plan 2010 (if it applies to the land) contains additional complying development not specified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.)

4 COASTAL PROTECTION

The land is not affected by the operation of sections 38 or 39 of the Coastal Protection Act 1979, to the extent that council has been so notified by the Department of Public Works.

5 MINE SUBSIDENCE

The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961.

6 ROAD WIDENING AND ROAD REALIGNMENT

The land is not affected by any road widening or road realignment under:

- (a) Division 2 of Part 3 of the Roads Act 1993, or
- (b) an environmental planning instrument, or
- (c) a resolution of council.

7 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(a) Council Policies

The land is affected by the Asbestos Policy adopted by Council.

The land is not affected by any other policy adopted by the council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

(b) Other Public Authority Policies

The Bush Fire Co-ordinating Committee has adopted a Bush Fire Risk Management Plan that covers the local government area of Penrith City Council, and includes public, private and Commonwealth lands.

The land is not affected by a policy adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council, that restricts the development of the land because of the likelihood of land slip, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

7A FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

(1) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) if such uses are permissible on the land. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

PLANNING CERTIFICATE UNDER SECTION 10.7**Environmental Planning and Assessment Act, 1979**

(2) This land has not been identified as being below the adopted flood planning level (ie. the 1% Annual Exceedance Probability flood level plus 0.5 metre) and as such flood related development controls generally do not apply for any other purpose not referred to in (1) above. Council reserves the right, however, to apply flood related development controls depending on the merits of any particular application. Should future studies change this situation this position may be reviewed.

8 LAND RESERVED FOR ACQUISITION

No environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 3.15 of the Act.

9 CONTRIBUTIONS PLANS

The St Marys Town Centre Development Contributions Plan applies to the land.

The Cultural Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith.

The Penrith City Local Open Space Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, excluding industrial areas and the release areas identified in Appendix B of the Plan (Penrith Lakes, Cranebrook, Sydney Regional Environmental Plan No. 30 - St Marys, Waterside, Thornton, the WELL Precinct, Glenmore Park and Erskine Park).

The Penrith City District Open Space Facilities Development Contributions Plan applies anywhere residential development is permitted within the City of Penrith, with the exclusion of industrial lands and the Penrith Lakes development site.

9A BIODIVERSITY CERTIFIED LAND

(Information is provided in this section only if the land is biodiversity certified land under Part 8 of the *Biodiversity Conservation Act 2016*. (Note. biodiversity certified land includes land certified under Part 7AA of the *Threatened Species Conservation Act 1995* that is taken to be certified under Part 8 of the *Biodiversity Conservation Act 2016*.)

10 BIODIVERSITY STEWARDSHIP SITES

(Information is provided in this section only if Council has been notified by the Chief Executive of the Office of Environment and Heritage that the land is land to which a biobanking stewardship agreement under Part 5 of the *Biodiversity Conservation Act 2016* relates. Note. Biodiversity stewardship agreements include biobanking agreements under Part 7A of the *Threatened Species Conservation Act 1995* that are taken to be biodiversity stewardships agreements under Part 5 of the *Biodiversity Conservation Act 2016*)

10A NATIVE VEGETATION CLEARING SET ASIDES

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

(Information is provided in this section only if Council has been notified of the existence of a set aside area by Local Land Services or it is registered in the public register under which section 60ZC of the *Local Land Services Act 2013* relates).

11 BUSH FIRE PRONE LAND

The land is not identified as bush fire prone land according to Council records.

12 PROPERTY VEGETATION PLANS

(Information is provided in this section only if Council has been notified that the land is land to which a property vegetation plan approved under the *Native Vegetation Act 2003* applies and continues in force.)

13 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

(Information is provided in this section only if Council has been notified that an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.)

14 DIRECTIONS UNDER PART 3A

(Information is provided in this section only if there is a direction by the Minister in force under section 75P(2)(c1) of the Act (repealed on 1st October 2011) that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect.)

15 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS AFFECTING SENIORS HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (seniors housing), of which the council is aware, issued under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 in respect of proposed development on the land; and/or
- (b) any terms of a kind referred to in clause 18(2) of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 have been imposed as a condition of consent to a development application granted after 11 October 2007 in respect of the land.)

16 SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

(Information is provided in this section only if there is a valid site compatibility certificate (infrastructure), of which council is aware, in respect of proposed development on the land.)

17 SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(Information is provided in this section only if:

- (a) there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land; and/or

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

- (b) any terms of a kind referred to in clause 17(1) or 37(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 have been imposed as a condition of consent to a development application in respect of the land.)

18 PAPER SUBDIVISION INFORMATION

(Information is provided in this section only if a development plan adopted by a relevant authority applies to the land or is proposed to be subject to a consent ballot, or a subdivision order applies to the land.)

19 SITE VERIFICATION CERTIFICATES

(Information is provided in this section only if there is a current site verification certificate, of which council is aware, in respect of the land.)

NOTE: The following matters are prescribed by section 59(2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate

(a) (Information is provided in this section only if, as at the date of this certificate, the land (or part of the land) is significantly contaminated land within the meaning of the Contaminated Land Management Act 1997.)

(b) (Information is provided in this section only if, as at the date of this certificate, the land is subject to a management order within the meaning of the Contaminated Land Management Act 1997.)

(c) (Information is provided in this section only if, as at the date of this certificate, the land is the subject of an approved voluntary management proposal within the meaning of the Contaminated Land Management Act 1997.)

(d) (Information is provided in this section only if, at the date of this certificate, the land subject to an ongoing maintenance order within the meaning of the Contaminated Land Management Act 1997.)

(e) (Information is provided in this section only if the land is the subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997 - a copy of which has been provided to Council.)

Note: Section 10.7(5) information for this property may contain additional information regarding contamination issues.

20 LOOSE FILL ASBESTOS INSULATION

(Information is provided in this section only if there is a residential premises listed on the register of residential premises that contain or have contained loose-fill asbestos insulation (as required by Division 1A of Part 8 of the Home Building Act 1989))

PLANNING CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979

21 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

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General Manager

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