

Pre-Construction Minor Works Approval Form

Minor Works are defined as any low impact activities that are undertaken prior to the commencement of 'construction' as defined in the project's applicable planning approval. However, if Minor Works affect or potentially affect heritage items, threatened species, populations or endangered ecological communities, these works are defined as 'construction' unless otherwise determined by the applicable planning authority.

Minor Works approvals do not remove any obligation to comply with the project's applicable planning approval conditions (including requirements prior to 'any works' commencing) or obtain any other applicable permits, licenses or approvals as necessary.

This application and all supporting information must be submitted to TfNSW/the Environmental Representative as one (1) PDF file at least 10 business days prior to the commencement of the proposed Minor Works.

Contractor:	Downer EDI Works
Project:	Sydney Metro South West – Package 5 (Punchbowl, Campsie, Dulwich Hill) and Package 6 (Belmore, Wiley Park and Hurlstone Park)
Application Title: (e.g. Smith St trenching works)	Package 5 and Package 6 – WE38 Possession and Minor, Standard Hours Works
Application Number:	Downer PCMWA 002
Application Date:	Rev 0: 05/03/2021 Rev 2: 17/03/21 Rev 1: 15/03/2021
	Sydney Metro City and Southwest Infrastructure Approval SSI-8256 (inclusive of CSSI 8256 MOD 1 determined 22 October 2020 and accompanying updated REMM's modification report)
Planning Approval:	Sydney Metro City and Southwest – Sydenham to Bankstown – Environmental Impact Statement (EIS)
	Sydney Metro City and Southwest – Sydenham to Bankstown – Submissions and Preferred Infrastructure Report (SPIR) (inclusive of Revised Mitigation Measures: REMM)
	Survey, survey facilitation and investigations works (including road and building dilegidation survey works)
	dilapidation survey works). 2. Treatment of contaminated sites.
	Establishment of ancillary facilities (excluding demolition) and providing facility utilities.
	4. Operation of ancillary facilities that have minimal impact on the environment and community.
Minor Works Categories:	5. Minor clearing and relocation of vegetation (including native).
Highlight as applicable.	6. Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments.
If Items 4, 8 or 11 are applicable, this form must be	7. Property acquisition adjustment works, including installation of property fencing and utility relocation and adjustments to properties.
endorsed by an Environmental Representative.	8. Utility relocation and connections.
	Maintenance of existing buildings and structures.
	10. Archaeological testing under the Code of Practice for Archaeological Investigatio of Aboriginal Objects in New South Wales (DECCW, 2010) or archaeological monitoring undertaken in association with other Minor Works to ensure there is n impact on heritage items.
	11. Any other activities that have minimal environmental impact, including



Note: for the purposes of this application the three highlighted scenarios shall be referred to as their itemised name of 1, 4, 5, 6, 8 or 11 for the remainder of this application.

No – it is anticipated that there will be no impacts associated with the minor works that will affect State Heritage listed items, areas of known or expected archaeological potential (no invasive works planned at Belmore whatsoever or Punchbowl PAD), threatened species, populations or endangered ecological communities. No movable heritage items shall be disturbed or impacted whatsoever during any of the planned works in this application. In addition Downer will implement the *Sydney Metro Unexpected Finds Procedure* v2.0 (heritage) and *Sydney Metro Unexpected Finds Contamination and Asbestos Procedure* throughout the scope of all minor works associated with this application with environmental and safety control measures. A summary of compliance is detailed below:

Item 1: All survey works (non-invasive) shall be on foot, non-destructive and non-penetrative – limited to handheld digital survey equipment. All survey works (invasive) shall involve NDD and Potholing at various locations (for the purposes of geotechnical, service identification and waste classification investigations), across all non-State Heritage Listed stations (not at Belmore) and outside of any threatened species, populations or endangered ecological communities' locations. It should be noted however that invasive NDD and potholing shall take place at Belmore during standard hours, following WE38 Possession in the MSB footprint. The MSB footprint is outside of the Belmore SHR (no. 01081) curtilage and outside of the AMZ under and AMS. This process and the proposed works have been assessed by the Project Heritage Consultants. Supporting advice from the Projects Heritage Consultants Artefact can be found in Appendix 5.

Item 4: Operation of ancillary facilities (note the establishment of ancillary facilities has been captured in MWA001) is not be in any areas of threatened species, populations or endangered ecological community locations for any of the stations as identified in the EIS and subsequent SPIR. Operation of ancillary facilities at Punchbowl, Campsie, Wiley Park, Hurlstone Park and Wiley Park have no State Heritage relevance.

Operation of one of the Belmore two ancillary facilities as discussed in MWA001 shall involve the operation "C12" on Bridge Road. Compound C12 is an existing permanent ancillary facility which is to be utilised as a Downer and Sydney Metro collaborative working space. This is outside of the State heritage curtilage of Belmore Railway Station Group (SHR no. 01081). Whilst it is noted to be within the Belmore AMZ the operation of C12 does not require any construction activities or any such activity outside of utilising the existing offices for the purposes of project management, requiring no further mitigation measures or consultation.

The installation and operation of C9 is outside of the Belmore AMZ requiring no further mitigation measures or consultation. Although C9 is located within the State heritage curtilage of Belmore Railway Station Group (SHR no. 01081), it would not cause any physical impacts to significant fabric and is to be utilised solely for the purposes of project management as per MWA001. However, as the installation does present minor visual impacts to the Belmore SHR, this compound shall not be installed or become operational until the Project is operating under "Construction" and in compliance to the "Construction" impacts as consulted with and endorsed through Heritage NSW and DPI&F

Item 5: Minor clearing and relocation of vegetation is scheduled to take place at three of the six stations during the W38 possession and subsequent weeks. These stations are Hurlstone Park (WE38), Wiley Park (WE38) and Dulwich Hill (post WE38). None of the stations are on the State Heritage Register and the locations nominated are not within or adjacent to any threatened species, populations or endangered ecological communities. The planned clearing is consistent with the Biodiversity Impact Assessment prepared as for of the EIS and subsequent SPIR.

Item 6: Installation of exclusion zones and safeguards shall be conducted through the installation of hoardings (Punchbowl, Campsie, Dulwich Hill, Wiley Park and Hurlstone Park) and temporary fencing (nonpenetrative ATF – Belmore for MSB area only as outside of the SHR curtilage) at various locations across the platforms and MSB building footprints as presented in the below sections. This presents no physical or visual impacts to State Heritage items, threatened species, populations or endangered ecological communities. Installation of environmental and safety controls shall continue to occur across all stations and are strictly nonpenetrative at Belmore and the

Planning Authority Determination:

Will the proposed works affect or have the potential to affect heritage items, threatened species, populations or endangered ecological communities?



Punchbowl PAD and are not in or adjacent to any threatened species, populations or endangered ecological communities at any station.

Item 8: Utility relocation is exclusively dedicated to Hurlstone Park for 80m of drainage relocation at the MSB location presenting no impact to any State Heritage Listed items or threatened species, populations or endangered ecological communities

Item 11: Any other activities that have minimal environmental impact: Various items have been proposed at Hurlstone Park (piling pad), Wiley Park (construction of a minor access road, grubbing and temporary works for piling pad installation) Punchbowl and Campsie (demolition of existing rail corridor structures) and Dulwich Hill (construction of two minor track side footings to facilitate future Overhead Wiring Structures and the removal of a redundant Overhead Wring Structure). None of these activities have any interaction with any State Heritage Listed items or threatened species, populations or endangered ecological communities.

Part 2: Details

Describe

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Site Location and Descriptions:

In accordance with the Environmental Impact Statement (EIS) and Submissions and Preferred Infrastructure Report (SPIR) the Project areas are within the rail corridor of the T3 Bankstown Line which is comprised of stations, overbridges, overhead wiring structures, track, services and ballast, extending from Sydenham Station to Bankstown Station. Within the Package 5 and Package 6 works area, all minor works described in this application are within the existing project boundaries as per the SPIR as shown in Appendix 1.

General Biophysical environment:

Within the rail corridor, the majority of the Project sites consists of fill associated with railway embankments, or exposed bedrock associated with cuttings and overlain with rail ballast or fill. Saline soils are located west of Punchbowl Station, with some isolated areas of high salinity potential. Acid sulphate soils are located along the Cooks River but outside of any of the Package 5 or 6 Project boundaries.

All six of the stations as part of this application are located within the Cooks River catchment. However, none of the Project sites are within a 250m crossing point of the Cooks River. Punchbowl Station is located within the Salt Pan Creek catchment.

Within both catchments, water generally drains to nearby watercourses via stormwater drainage infrastructure.

Water quality within the two catchments is generally poor because of the influence of run-off from urban areas. However, water quality improves in downstream areas within both catchments. The closest water course to any of the projects sites is the unnamed concrete lined channel at Wiley Park, this approximately 100m from the site and not at risk from the establishment of ancillary facilities, station investigations, survey or any NDD. It is however in proximity to the planned vegetation clearing during WE38 possession and shall be covered and protected with netting to ensure no leaf litter or vegetation debris enters the concrete channel from vegetation litter during works (controls noted on ECM).

The majority of the Project sites have been heavily modified by past and ongoing disturbances associated with urban development and the active rail corridor. Vegetation within the Project sites is dominated by grasses, small shrubs, and a variety of weeds, with some scattered trees. The majority of vegetation comprises exotic or planted native species on highly modified landforms. This includes vegetation in the form of street trees in the vicinity of stations and also along the corridor. There are small isolated patches of remnant or regrowth native vegetation in small portions of the study area associated with rail cuttings with less disturbed soil profiles.

In accordance with the EIS and REMM B1/B4 two threatened ecological communities, listed under the Threatened Species Conservation Act 1995 (TSC Act), occur in the wider Project area:

- Sydney Turpentine Ironbark Forest in the Sydney Basin Bioregion (including Downy Wattle Turpentine and Degraded Turpentine Grey Ironbark open forest on shale)
- Shale Gravel Transition Forest (including the Broad-leaved Ironbark Grey Box)

One threatened fauna species, the Grey-headed Flying-fox, was recorded in the wider study area during site surveys for the EIS. Four other species listed as vulnerable under the TSC Act are likely to occur at least on occasion: the Eastern Bentwing Bat, Large-footed Myotis, Eastern Freetail Bat and Yellow-bellied Sheath-tail Bat.

Potential habitat for the endangered Long-nosed Bandicoot population is present in parts.

The rail corridor also contains around 650 stems of the endangered Downy Wattle (Acacia Pubescens, which is listed as a vulnerable species under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and the TSC Act. These stems are in proximity to Punchbowl Station.

Land use:

All of the six stations and the total scope associated with this application are situated within the active rail corridor of the T3 Bankstown Line and surrounded by highly urbanised mixed land uses, primarily low to medium density residential and commercial plus community, health, education, and recreation. The community has been suitable notified of the planned minor works as per Appendix 3.

Station locations and heritage significance:

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Package 6:

Wiley Park:

Wiley Park Station is located to the west of the King Georges Road overbridge. The station area is bounded by Stanlea Parade walkway to the north, by King Georges Road to the east and The Boulevarde to the south. The station entrance is located on the overbridge. Wiley Park Station is listed on the RailCorp S.170 Heritage and Conservation Register (4801946) and Canterbury LEP 2012 (I159) as holding local heritage significance.

Hurlstone Park:

Hurlstone Park Station is located to the west of the Crinan Street overbridge. The station area is bounded by Crinan and Floss streets and residential dwellings to the north, Duntroon Street and residential dwellings to the south, and Crinan Street to the west (on the bridge). The station entrance is on the overbridge. Hurlstone Park Station is listed on the RailCorp S.170 Heritage and Conservation Register (4802051) and Canterbury LEP 2012 (I124) as holding local heritage significance.

Belmore:

Belmore Station is located to the east of the Burwood Road overbridge. To the north and south, the station area is bounded by commuter car parks fronting Redman Parade and Tobruk Avenue respectively. To the west, the station area is bounded by Burwood Road. The existing station entrance is located on the Burwood Road overbridge. Belmore Railway Station Group is listed on the State Heritage Register (SHR) (01081), Canterbury Local Environment Plan (LEP) 2012 (I11) and RailCorp s.170 Heritage and Conservation Register (4801084). Situated adjacent to, but outside of the project boundary are areas of potential archaeological deposits (PAD), S2B PAD01 which is located in a small park between the rail corridor and Redman Parade. S2B PAD01, would not be impacted by works associated with construction and shall be physically excluded as part of project establishment.

Package 5:

Campsie:

Campsie Station is located to the west of the Beamish Street overbridge. The station area is bounded by Lilian Lane/South Parade to the south, Wilfred Avenue/North Parade to the north, and Beamish Street to the east. The station entrance is located on the overbridge. RailCorp S.170 Heritage and Conservation Register (4801101) and Canterbury LEP 2012 (I140) as holding local heritage significance.

Dulwich Hill

Dulwich Hill Station is located west of the Wardell Road overbridge. The station area is bounded by Bedford Crescent to the north, Ewart Lane to the south, and Wardell Road to the east. The station entrance is on Wardell Road. Dulwich Hill is listed on the RailCorp S.170 Heritage and Conservation Register (4801909) Marrickville Local Environment Plan (LEP) 2011 as "Dulwich Hill Railway Station Group", LEP# I316 as holding local heritage significance.

Punchbowl:

Punchbowl Station is located to the east of the Punchbowl Road overbridge. The station area is bounded by commercial land uses and a car park fronting The Boulevarde to the south, Warren Reserve and Urunga Parade to the north, and Punchbowl Road to the west. The station entrances are located on Punchbowl Road (via Warren Reserve) to the north, and The Boulevarde to the south. Punchbowl Station is listed as local heritage significance on the RailCorp S.170 Heritage and Conservation Register (4802009) and Canterbury LEP 2012 (I155). Punchbowl is also an area of potential archaeological deposits (PAD), S2B PAD02 which is located in a small park between Punchbowl Road and Urunga Parade. S2B PAD02 is within the Project area and would be impacted by works associated with construction of the northern entrance to Punchbowl Station. This is however subject to further assessment and falls outside of the scope of this application

Appendix 1 and 1.1 identifies the location of the proposed works in relation to environmental sensitive areas and receivers and provides extensive mitigation measures in accordance with the CEMF and the REMM.

Work methodologies and site location:

WE38 Possession and until Construction commencement.

Note: works specific to WE38 Possession have been assessed from the perspective of noise and vibration separately under the OOHWA 001 and shall be undertaken in accordance with OOHWA 001 following approval from Sydney Metro. All works not assessed under OOHWA 001 shall be conducted in standard hours (SH).

Item 1: Survey, survey facilitation and investigations works.

Site investigations (non – invasive) survey. Non-invasive survey using handheld inaudible equipment such as CCTV, 3D scanning, laser measurements, building condition surveys are planned to take place across all six stations at various points within the station precinct to confirm design requirements, heritage documentation and services. These works are considered inaudible with no physical impacts and negligible impacts to station customers, commuters or members of the local community.

Invasive site investigations shall take place across all location not on the State Heritage Register or under archaeological management (not at Belmore within the SHR curtilage or the AMZ) for the duration of the WE38 possession (not Belmore) and as required for the subsequent weeks during standard hours where access permits (all stations including Belmore MSB). The investigations are required to further advise Downer on the current services arrangements (in accordance with CoA E71) and update known geotechnical data and waste classification details (in accordance with CoA E76).

Invasive investigations shall involve initial saw cuts (where required) to expose sub surface ground conditions, potholing using core drills and or non-destructive digging using either hydro vac truck or dry vac truck. Small (3.5tn) excavators will be used to backfill the test pits / investigation locations with clean material, compacted and resurfaced in asphalt or concrete depending on the original surface.





To prevent any cross contamination during backfill or unlawful removal and disposal from site, any excavated materials shall be stored within Project laydown area to await waste classification results prior to offsite disposal to a suitably licenced facility. Or disposed of directly as liquid waste from the NDD / Vac trucks at facilities licenced accept liquid waste

The work teams will be moving within the station boundary over the course of WE38 and will be working at each station simultaneously. The locations for the investigations are and illustrated in the diagrams within Appendix 1.1 (Staging diagrams)

Note: Specific to Belmore as discussed above the only invasive works to be conducted within the Belmore Project boundary is specifically itemised to the locations of the MSB and shall be conducted in the weeks following WE38 during standard hours. As confirmed in Appendix 5, the MSB is outside of both the Belmore SHR and the AMZ under an AMS and as such no further consultation and or mitigation measures are required (only unexpected finds).. Downer will delineate physically the SHR curtilage boundary plus a 2-meter buffer zone to the extent of the MSB location for added delineation and assurance. To ensure the PAD01 at Belmore is not encroached during access to the MSB area, physical exclusion zones shall be added by way of water filled barriers / ATF as both options present suitable and non-penetrative exclusion methods.

WE38 Possession and until Construction commencement

Item 4: Operation of ancillary facilities :

In reference to the SPIR and the Approved MWA001 the Project intends to operate the ancillary facilities in the below table and approved locations. The temporary compounds are to be installed prior to WE38 Possession to allow for "onsite" surveillance during the Possession and the subsequent weeks. The operation of the compounds is fundamental to the delivery of the Projects and shall allow for greater supervision of the workforce during minor works execution. The operation of the compounds shall be limited to general project management deliverables inclusive of meetings, briefings and training.

Each Station compound is expected to have approximately 5 full time staff with intermittent work groups raging from 2 to 50 depending on the time and scope (WE38 for example is anticipated to see a larger number of individuals operating from each compound compared to the subsequent weeks).

The layout and configuration of the compounds has been pre-determined and approved in MWA001. Each compound based on spatial constraints shall have limited parking with team members encouraged to maximise the use of public transport in accordance with REMM TC15 and Downer's Green Travel Policy.

The minor noise generated impacts from the use of the compounds as office space is consistent with the Projects CNVMP and CNVIA. If under temporary generator power supply the operation of ancillary facilities shall be limited to standard hours unless otherwise approved through an Out of Hour Works Application. All ancillary facilities shall be fitted with automatic closing door systems to minimise doors being left open and any nuisance of "people talking".

Waste shall be managed in accordance with the Projects CEMP and associated waste management procedures.

SPIR referenc e	Location	Existing use
C3	Floss Street, Hurlstone Park	Roads reserve and rail corridor
C12	Bridge Road, Belmore	Sydney Trains maintenance facility
C16	The Boulevarde, Wiley Park	Rail corridor, road verge
C2	Ewart Lane, Dulwich Hill	Rail corridor, parking
C8	Lilian Street, Campsie	Rail corridor, parking
C18	Urunga Parade, Punchbowl	Rail corridor
C19	Urunga Parade, Punchbowl	Rail corridor, road reserve

WE38 Possession and until Construction commencement

Item 5: Minor clearing and relocation of vegetation

Tree trimming and removal is scheduled to take place at two of the six stations during the W38 possession. These stations are Hurlstone Park (approximately 20 trees), Wiley Park (approximately 25 trees). Tree trimming is scheduled to take place at and Dulwich Hill (approximately 10 trees) however this is pending additional arborist and ecologist advice and an update to the submitted E5 Tree Report Rev 0 (or latest revision at time of approval). The tree species are consistent with the existing clusters as assessed by Sydney Metro's Design Contactors in the below reports and subsequent arborist reports conducted by Downer (namely planted exotic and native with clusters of weeds common to the rail corridor with no species identified as threatened or endangered ecological communities). These reports have been used to provide the Projects Tree Report Rev 0 (or latest revision at time of approval) in accordance with CoA E5

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and have been submitted to Sydney Metro as a stand-alone approval pathway which shall dictate the timing of tree impact (tree impact subject to E5 approval)

- Hurlstone Park Station Arborist Report SMCSWSWM-MTM-WHP-LA-REP-131000
- Wiley Park Station Arborist Report SMCSWSWM-MTM-WWP-LA-REP-231000
- Dulwich Hill Station Arborist Report SMCSWSWM-MTM-WDH-LA-REP-121000 (note Dulwich Hill tree trimming pending additional arborist and ecologist advice and not submitted as part of Tree Report Rev 0 (or latest revision at time of approval)
- Downer Group Southwest Metro Package additional tree removals Wiley Park Station
- Downer Group Southwest Metro Package additional tree removals Hurlstone Park Station

In addition, and in accordance with the Downer EMS, no vegetation or land is permitted to be disturbed without the approval and issuing of Downer's *DG-ZH-FM071.3 Land or Vegetation Disturbance Permit* Until (See Appendix 2.1).

In accordance with REMM B2 Downer has sought ecologist advice on the exact number, species and total impact from the proposed works through the required Pre-clearance surveys for each station (Hurlstone Park and Wiley Park at this stage). Further to the compliance with REMM B2, as there is the presence of fauna (namely nesting Ibis's at Wiley Park and a number of native trees) compliance with REMM B6 shall be demonstrated through the attendance of a trained ecologist at Wiley Park during clearing works with the addition of WIRES representation.

At Hurlstone Park the ecologist's Pre-clearance survey evaluated the trees and vegetation as not having potential fauna habitats. To demonstrate compliance with REMM B6 If a nest and/or possum drey is encountered, the works will cease until the ecologist has inspected the area, implement suitable catcher / relocation procedures prior to any works recommencing.

The ecologist Pre-clearance surveys are detailed in Appendix 7 (Wiley Park) and Appendix 8 (Hurlstone Park).

The locations of the intended tree trimming, and removal is illustrated in Appendix 1 for each station.

With respect to the methodology, the tree trimming, and removal shall involve small teams of arborists who will access the trees either from ground level or via EWP's to systematically and safely remove the identified trees. During the felling process the tree branch sections shall be fed through a woodchipper and converted into mulch (where feasible and practical the mulch shall be retained and reused on site for erosion and sediment controls as additional and localised ground cover). The tree trimming and removal has been scheduled during the programmed Sydney Trains possession and power outage to minimise the risk to construction workers and arborists from the potential of clashes with the OHLE and / or risk of falling branches into the live corridor. All tree trimming and removal works shall be conducted in accordance with the mitigation measures and arborist advice as per E5 Tree Report Rev 0 (or latest revision at time of approval) pending Sydney Metro approval.

WE38 Possession and until Construction commencement

Item 6: Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments.

Hoarding installation shall take place across all non-State Heritage Listed stations (not at Belmore) for the duration of the WE38 possession. Hoarding installation on platforms and around the MSB's shall involve localised saw cuts and minor hydro excavation (NDD) for hoarding post footings followed by localised minor concrete pours for the post installation and hand tools to fix hoarding panels. Any excavated materials shall be transported offsite as liquid waste to a suitably licenced facility.

Following installation, the hoarding shall provide a safe and secure workspace and provide physical separation between the station's construction activities and members of the public, station staff and active trains.

Installation of additional environmental controls is likely to take place in localised areas during the WE38 possession works and the subsequent weeks for task specific activities. for the purposes of this application this shall be in accordance with the ECM's / ESCP's as listed in Appendix 1 at all stations. The principle environmental controls shall consist of boundary sediment fencing, permeable ground cover such as ballast and blue metal, coir logs, geofabrics and sandbag bunding's. Mulch ground cover shall also be used in localised areas as described in Item 5 above where suitable. Delineation of Tree Protection Zones shall be conducted in accordance with arborist and ecologist advice. The installation of the physical exclusion zone around the PAD at Belmore and Punchbowl shall be installed under consultation and advice from the Projects Heritage Consultant in accordance with Appendix 5. To prevent any penetrative impacts to the PAD location the proposed methodology for the PAD exclusion zone is ATF fencing or water filled barriers with appropriate signage. All future and station specific exclusion zones shall be incorporated into task specific methodologies and ECM's as the project works progress.

Post WE38 Possession and until Construction commencement

Item 8: Utility relocation and connections

During SH, following the WE38 Possession and specific to Hurlstone Park, in accordance METRON T2M Stage 3 design package Downer intend to install an 80m drainage line for the new MSB to allow for the safe disconnection and decommission of the existing drainage which currently runs under the MSB proposed location.

The works would involve an 80m linear excavation to a depth of 1.5m along the same alignment as the existing drainage system and a minor temporary diversion. Excavated material shall be locally stockpiled within the Project boundary and covered in geofabric sheeting with a sandbag perimeter base bund. Once tested shall be removed from site to a suitably licenced facility.

Once the drainage route has reached design depth imported material shall be used as bedding, the 375mm pipe installed, additional back fill and final compaction completion. Once the line has been fully installed and tied into the existing, the existing can be decommissioned and removed at a date yet to be determined. This methodology shall



ensure there is no period without a continuous drainage solution and shall allow for the existing to be decommissioned and the new line installed to not clash with the new MSB building.

Item 11: Any other activities that have minimal environmental impact:

WE38 possession.

Dulwich Hill: Piling for footing construction and removal of redundant overhead wiring structure

During SH, Minor piling using an excavator with auger attachment and the pouring of the overhead line stanchion footings (following the completion of the minor piling) has been scheduled at Dulwich Hill during the WE38 possession. The works involve utilising a 12th hi-rail excavator with an auger attachment to bore the piles in proximity to both city and country tracks running either side of the Dulwich Hill island platform. Once the piles have been installed a concrete truck with boom line shall be utilised to pour both piling locations with approximately 1.5m3 of concrete, per footing to complete the required footing design for the future installation of the overhead line stanchion. The footings have been planned to take place during Saturday 20th March between 0800-1800.

Following the completion of the footings the redundant overhead wiring structure which currently sits adjacent to the new footing's location (between the Sydney Trains and ARTC tracks) shall be removed. Due to a clash of work groups the removal of the redundant overhead wiring structure is planned to take place during the evening and night period at Dulwich hill and will involve hand tools and EWP's to safely access the structure and dismantle it. A hi-rail, hi-ab shall be used to lower the dismantled structure items to ground level for removal from site as metal recycling.

Works for the Overhead Wiring Removal are planned from 1800-0800 on Saturday 20th – Sunday 21st March 2021 it should be noted this is the only planned night works for any minor works in this application and is in accordance with the WE38 OOHWA.

Post WE38 possession and until Construction commencement

Wiley Park: Grubbing and temporary piling pad

Following the receipt of approval of the E5 Tree Report Rev 0 and submission to DPI&E, in the week following the WE38 possession the area of trees removed for the MSB shall be grubbed, removing any remaining tree stumps and localised roots. This shall be conducted during standard hours behind the hoarding as erected during WE38. The grubbing shall create a level surface to allow for the subsequent construction of the MSB building. Following the receipt of waste classification results, as the grubbing shall involve ground level vegetation screeding and grading at the MSB designed location, all excess arisings shall be loaded into Bogies and transported for disposal at a suitably licenced facility.

Following the grubbing and level ground profile suitable layers of geofabric followed by temporary DGB20 / road base shall be laid as ground cover and to act as a temporary piling pad for the MSB retaining walls. Additional perimeter sediment fencing shall be installed.

Wiley Park: temporary access road:

JHLOR Contractors have constructed a temporary access road at Wiley Park from the rail corridor access gate on the north side of the station of Shadforth Street, running west along the rail corridor boundary fence line. In the subsequent days following the WE38 possession Downer intends to refresh and extent this temporary access road by an additional 40m to the end of the planned MSB footprint. This shall allow a stabilised access road for future deliveries at works associated with the MSB. The temporary access road shall be constructed on a geofabric base layer creating a barrier between the existing ground conditions (existing temporary access road and unmade ground) following by 200mm of road base. The existing perimeter sediment fence shall be removed and replaced with a new and robust sediment fence which shall run the length of the access road with a return at the end, creating an enclosed and stabilised access point whilst containing and any sediment. The existing grassed area further west of the access road shall remain untouched.

Hurlstone Park: Temporary piling pad

In the week following the WE38 Possession during standard hours, in accordance with the METRON T2M Stage 3 design package Downer intend to install a 50m by 20m temporary piling pad to facilitate the subsequent MSB building piling works required at a later date. The temporary piling pad installation shall involve minor ground stabilisation and grading using excavators to achieve the required profile. Graded material shall be locally stockpiled and covered in geofabric sheeting with a sandbag perimeter base bund. Once tested shall be removed from site to a suitably licenced facility.

Following the level ground profile suitable layers of geofabric followed by temporary DGB20 / road base shall be laid as ground cover and to act as a temporary piling pad for the MSB.

Punchbowl and Campsie: Following the WE38 Possession and during standard hours Downer intends to commence the demolition of the existing buildings at both Campsie and Punchbowl which are marked on the latest design drawings due to their clash with the newly proposed MSB's.

Prior to any demolition additional hazardous material surveys shall be conducted by suitably qualified hygienists. Depending on the results of any condition surveys in consultation with Downer Zero Harm team and engagement with a licenced demolition contractor the demolition is planned to commence in a sequence as determined by the demolition contractors works methodologies. Demolition is considered to take approximately 2 weeks to reach the design finish to allow for preparation of grounds for the future MSB buildings. All waste demolition material shall be stacked within skip bins adjacent to the demolition locations and managed in accordance with the CEMP and waste procedures for the Projects. Atmospheric and occupational air monitoring shall be installed and air quality mitigation such as misters and water suppression shall be utilised as required.

Plant list (all stations)

- Excavators (3t-13t)
- Delivery truck



- Site utes
- 2t tipper
- Road Sweeper
- Handheld survey equipment
- Hiab (hi-rail and standard)
- Water cart/trailer (as required for any dust suppression)
- Hi Rail/On road Sucker truck
- Demo saw
- 12t balloon tyre excavator / hi rail excavator
- Hi-rail dumper
- 2t tipper
- Lighting towers
- Hand tools (including hand held coring drill)
- Concrete truck and pump
- Bogie
- Chain saw (only for stations as per item 5 above)
- Woodchipper (only for stations as per item 5 above)
- Piling rig (Dulwich Hill only)
- Handheld survey equipment
- EWP
- Site utes
- Road sweeper (as required)

Working Hours

All works associated with WE38 are in accordance with the times listed and confirmed within OOHWA WE38 Rev01 (or latest revision at time of approval). All other minor works items are during standard hours (SH) As a summary this includes:

Item 1: SH Monday - Saturday and the below during WE38

Location	Planned Timing	Work Period
Belmore station precinct and MSB (non-invasive)	0800-2000 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Hurlstone Park station precinct and MSB	0800-2000 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Wiley Park station precinct and MSB	0800-2000 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Punchbowl station precinct and MSB	0800-2000 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Campsie station precinct and MSB	0800-2000 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Dulwich Hill station precinct and MSB	0800-2000 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)

Item 4: as per standard hours or non-standard if approved under an OOHWA

Item 5: Wiley Park and Hurlstone Park (WE38) Dulwich Hill (following WE38)

Location	Planned Timing	Work Period
Hurlstone Park MSB location	0800-1800 Saturday	Standard Hours (SH)
Wiley Park MSB location	0800-1800 Saturday	Standard Hours (SH) Out of Hours (Day)



Dulwich Hill	0800-1800 Monday –	Standard Hours (SH)
MSB location	Friday	

Item 6: All during WE38 except ATF for Belmore

Location	Planned Timing	Work Period
Belmore MSB only and during SH mon-fi	0800-1800 Monday – Friday	Standard Hours (SH)
Hurlstone Park station platforms and MSB	0800-2200 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Wiley Park station platforms and MSB	0800-2200 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Punchbowl station platforms and MSB	0800-2200 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Campsie station platforms and MSB	0800-2200 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)
Dulwich Hill station platforms and MSB	0800-2200 Saturday and 0800 – 1800 Sunday	Standard Hours (SH) Out of Hours (Day) and Out of Hours (Evening)

All items below are not to be conducted under OOHW but in the hours as stated.

Item 8: Standard Hours

Items 11:

Dulwich Hill: Piling for footing construction (during SH) followed by the removal of redundant overhead wiring structure – OOH (Evening) and OOH (Night)

Hurlstone Park temporary piling pad - Standard Hours

Wiley Park grubbing and piling pad - Standard Hours

Wiley Park temporary access road - Standard Hours

Campsie and Punchbowl demolition - Standard Hours

Planned Commenc ement Date:

All minor works scope items are planned to commence simultaneously across the 6 stations listed in this application during Standard Construction Hours (SH) and Out of Hours in accordance with OOHWA WE38 from Saturday 20th March 2021 and be complete by Sunday 21st March. All non-possession related works are planned to be completed during SH by Friday 16th April 2021.

T3 Line between Dulwich Hill and Punchbowl Station

Local Sensitiviti es:

Describe the presence (if any) of local sensitive environme ntal areas and community receptors There are a number of residential properties located within close proximity to the work locations as can be seen within Appendix 1. Due to the proximity of these receivers to the works, these properties may be sensitive to excessive noise, particularly during OOHW . The specific noise and vibration impacts to associated receivers during OOHW for WE38 period is captured with the relevant mitigation measures within the WE38 OOHWA Rev1 (or latest revision at time of approval). For station specific and WE38 targeted noise impacts refer to the WE38 OOHWA Rev1 (or latest revision at time of approval) for relevant information.

The works outside of OOHWA WE38 specific to this application shall be conducted during standard hours (SH) in accordance with the Project CNVMP and CNVIA. Any potential impacts to these properties will be managed in accordance with the Construction Noise and Vibration Strategy, including relevant notifications.

Preliminary environmental site assessments identified the potential risk of contamination within the investigation area, with potential contamination sources being historical rail activities, and commercial and residential land use in surrounding areas. Potential contaminants identified in low to medium risk areas included:

- Asbestos
- Hydrocarbons
- Heavy metals
- Herbicides

All invasive works (NDD, potholing, localised hoarding installation and minor grading for piling pads) are localised and or shallow therefore risks associated with the disturbance of contamination are considered to be low. Workers will report any finds in accordance with the Sydney Metro unexpected finds procedure for contamination as detailed in Appendix 2.





Acid sulphate soils with respect to Package 5 and 6 stations have been assessed as Class 5 presenting the lowest risk. Works shallow in depth not reaching below 1.5m in any location and therefore risks associated with the disturbance of PASS/ASS are negligible.

Minor works at Belmore Station will occur within the archaeological management zones as defined in the AARD. However, as the works within this zone are specifically related to non-invasive survey the risk is considered as negligible and do not require an AMS. This has been further confirmed by the Projects Heritage and Archaeological Consultants, Artefact and evidenced within Appendix 5.

As discussed above the only invasive works to be conducted within the Belmore Project boundary is specifically itemised to the locations of the MSB and shall be conducted in the weeks following WE38 during standard hours. As confirmed in Appendix 5, the MSB is outside of both the Belmore SHR and the AMZ under an AMS and as such no further consultation and or mitigation measures are required (only unexpected finds). Downer will delineate physically the SHR curtilage boundary plus a 2-meter buffer zone to the extent of the MSB location for added delineation and assurance.

Two areas that potentially contain aboriginal archaeology, known as PADs (Potential Archaeological Deposit) are located within the EIS study area. PAD01 is located outside the Project boundary at Belmore. PAD02 is located within the Project boundary, but outside the rail corridor or any works associated with this application at Punchbowl. No laydown or any works will take place within these areas. In addition, both PAD's shall be physically delineated within non ground penetrative methods to further reduce unintentional impacts (ATF / water filled barriers) this is in accordance with Appendix 5.

As discussed on page three of this application, a number of areas of Endangered Ecological Community (EEC) under the TSC Act have been identified within the vicinity of the work zone. These areas are shown in Appendix 1 where they relate to the proposed work areas. No works will occur within the EEC areas. Appropriate delineation and signage will be in place.

A number of patches of the threatened plant species Acacia Pubescens are located within the rail corridor on the countryside of Punchbowl Station. These areas have been excluded from the project footprint and are shown in Appendix 1. The closest patch is located adjacent to compound "C21" which is not to be utilised or is part of this application. Downy Wattle (Acacia pubescens) is listed as vulnerable under the EPBC Act and TSC Act. The EIS states "The patches of stems recorded are located mainly in the vicinity of Punchbowl Station, with around two stems recorded in the rail corridor, and one stem in a Council reserve around 100 metres east of the Yagoona substation. The project has been designed to avoid impacting on the recorded locations of this species." Works, including trimming or removal of vegetation, will not occur under this PCMW.

In addition, there is an existing stand of degraded Sydney Turpentine-Ironbark Forest (STIF) at Dulwich Hill, within the corridor adjacent to Dudley Street. Whilst this is noted, there are no works planned adjacent to the cluster. Service searches and waste classification testing is planned within the vicinity however suitable exclusions zones / TPZ shall be established prior to any works within any proximity. This is further highlighted on the Projects ECM.

A number of habitat features are present within the work area including;

- Hollow bearing trees (as observed at Wiley Park)
- Habitat for Grey-headed flying-fox
- Habitat for Australian Ibis roosting (as observed at Wiley Park)

In accordance with the Projects Pre-clearance ecology surveys (REMM B2) a number of trees at Wiley Park (not at Hurlstone Park) proposed to be removed contain nesting Ibis and potential habitat due to the hollow bearing nature. Ecologist advice has been obtained and detailed within 20127 - Let4_Wiley_Park_Pre-Clearance which concludes the presence of a suitably trained ecologist to safely and effectively remove the Ibis nests prior to any tree trimming or removal. Depending on the presence of chicks / eggs at the time of removal the chicks / eggs they will be relinquished to a qualified wildlife carer (WIRES) or taken to the nearest veterinary clinic for treatment if injured by the Project ecologist. shall be taken to WIRES and the nest disposed of, should no eggs be present the nest shall be disposed of.

Once all nests have been inspected and any resident fauna rescued, trees should be vigorously agitated immediately prior to felling in order to encourage any remaining potential resident fauna, such as roosting adult ibis and possums, to self-relocate. Habitat trees containing hollows will be thoroughly inspected by an ecologist immediately following felling. Should fauna be inadvertently injured, it will be taken to the nearest veterinary clinic for treatment, or, if the injuries are deemed too severe, humanely euthanised on site by the attending ecologist. All work should cease until the ecologist has returned and is satisfied that no fauna is likely to be impacted.

In addition, their recommendations in accordance with B6 is to have an ecologist in attendance during native / habitat tree trimming and removal to provide clearance that the potential hollow bearing trees are free from habitat. Following the removal of the habitat trees the Project should provide offset nest boxes as detailed within 20127 - Let4_Wiley_Park_Pre-Clearance.

"two habitat trees containing five medium hollows and two small hollows are proposed to be removed, it is recommended that seven nest boxes be installed in the surrounding vegetation being retained. Five possum boxes and two microchiropteran bats are recommended as these are the most likely species to utilise the current hollows. The nest boxes should be made of wooden material and installed at a height of approximately 4 m. Furthermore, the nest boxes should face either a north-eastern or south-western direction in order to minimise exposure to the harsh, direct sunlight from the afternoon sun"

Visual amenity – the visual aspects of laydown areas, minor construction impacts (hoardings, piling pads) and site compounds are consistent with the industrial nature of the rail corridor. Lighting towers will be pointed away from receivers to minimise the impacts of lighting spill when required for future OOHW scenarios.

The loss of visual amenity is considered with respect to the removal of a number of identified trees to facilitate the MSB buildings, however these are consistent with the EIS and the SPIR as approved for the Project.

"The biodiversity assessment for the preferred project was undertaken based on the assumption that all vegetation within the rail corridor would need to be removed to construct the preferred project" (SPIR, Section 2.4.4)





This loss of visual amenity is considered to be temporary with the planned replanting and landscape plans to mitigate such impacts by project completion.

Works may occur in the vicinity of local stormwater systems (within 30m). Localised erosion and sediment controls will be in place at all locations where materials associated with the works may leave the corridor, including via stormwater drainage. This shall be managed in accordance with the CEMP and sub plans.

Appropriate approvals, including Road Occupancy Licences and Traffic Control Plans, must be in place where works on roadways are required. Traffic Control Plans have been provided in relevant to the specific works in Appendix 6 to manage vehicle, construction worker and pedestrian interface during the WE38 Possession and subsequent SH works.

It is noted that during the WE38 possession a number of the Station commuter car parks are required to be temporarily closed to facilitate access for the planned works. The temporary closure of these car parks have been communicated to the local residents via the targeted door knocks and to the wider community who do not fall within the door knock zoning via installed and targeted signage. The signage explaining the closures has been installed within the seven-day period prior to the closure. The impact is considered as temporary and limited to the car parks identified as station commuter car parks, considered to have minimal impact due to the station closures during the WE38 works. This is consistent with the identified traffic and parking impacts in accordance with the SPIR. Temporary parking loss per station is summarised below:

- Dulwich Hill: twelve spaces
- Hurlstone Park: five spaces
- Campsie: eight spaces
- Belmore: zero spaces
- Wiley Park: five spaces
- Punchbowl: three spaces

Pedestrian access will be maintained through suitable pedestrian diversions in any area where works are occurring, outside of the planned WE38 Possession, where there shall be no public access to any of the stations.

Part 3: Environmental Risk Assessment and Management

Prepare an Environmental Risk Assessment (in accordance with the <u>Sydney Metro Risk Management Standard</u>) and an Environmental Control Map for the proposed Minor Works and attach as Appendix 1.

If an Environmental Risk Assessment and/or an Environmental Control Map for the proposed Minor Works is/are already contained in existing documentation, attach the relevant section(s) as Appendix 1.

Documentation:

List any existing documents (including those referenced above) that the proposed Minor Works will be undertaken in accordance with and attach as Appendix 2 (e.g. plans, procedures, procedures, etc.).

An ECM for the proposed works are included in Appendix 1. Staging diagrams are included in Appendix 1.1 An Environmental Risk Assessment 1.2 Unexpected finds procedure as detailed in Appendix 2. DG-ZH-FM071.3 Land or Vegetation Disturbance Permit Appendix 2.1 Community Notifications in Appendix 3. Artefact Heritage advice in Appendix 5

Traffic Control Plans in Appendix 6 Ecologist pre-clearance survey (Wiley Park) in Appendix 7 Ecologist pre-clearance survey (Hurlstone Park) in Appendix 8

Part 4: Workforce Notification

How will the environmental and community risks and associated mitigation measures of the proposed Minor Works be communicated to the contractor's workforce?

Prior to any minor works a site induction will be provided to all personnel working on the project site. The induction will include relevant environmental aspects and risks associated with works on the project site.

Part 5: Community Consultation

What community consultation has been undertaken already?

The works associated with this application inclusive of WE38 Possession works are included within the March 2021 Monthly Community Notice for each station and included in Appendix 3. Any works which are required to exceed March and continue into April shall be included in the April notification.

(Uncontrolled when printed)



What community consultation is planned to be undertaken?

Ongoing consultation will and has occurred through the Monthly Community Notice with the addition of the installation of signage to advise the community of any impacts to any parking (particularly during the WE38 planned possession). The signage has been installed within the specified timeframes prior to any occupancy of commuter carparks.

Door knocks detailing the WE38 and general upcoming works have been completed (Friday 12th March) for all those residents within the specified distances in accordance with OOHWA WE38 Rev01. This is in accordance with the seven days prior timeframe.

If drafted already, attach applicable Community Notification as Appendix 3.

Part 6: Contact	Details				
Nominate contract	tor's project manager, environm	ental and comm	unications contact(s).		
	Kristo Bugarija		Senior Project Manager		0428 161 912
Name:	Gareth O'Brien	Position:	Environment and Sustainability Manager	Phone:	0428 194 445
	Julie Henderson		Community Relations Manager		0415 161 810
•					
Part 7: Signature					
			be undertaken in accordance with		on, have minimal

Part 7: Signature			
This signature acknowledges that the proposed Minor Works environmental impact and are not defined as 'construction' in			ı, have minimal
Name:	Gareth O'Brien		
Signature:	9.0'Brien	Date:	Rev 0: 05/03/2021 Rev 1: 16/03/2021 Rev 2: 17/03/2021



Determination Page

TfNSW/Environmental Representative Use Only)

12. Endorsement/Approval

These signatures represent formal endorsement/approval for the proposed Minor Works to commence in accordance with this application and the applicable planning approval requirements (subject to any determination from the applicable planning authority as may be required by the planning approval conditions).

,	Tensia Principal Manager	· · ·	
	TfNSW Principal Manager, Communication & Engagement	TfNSW Principal Manager, Sustainability, Environment & Planning	Environmental Representative – Endorsement
	- Endorsement	– Approval	(required as necessary in accordance with the applicable planning approval, optional
	(required for all applications)	(required for all applications)	for all other circumstances)
Signature	: Qu	A.	B. M. Cenner
Name:	May Li Foong	Fil Cerone	Brett McLennan
Date:	18/3/21	19 March 2021	18/03/21
			Supporting letter attached as Appendix 4 if necessary.
Comment	s: Nil		Nil
Condition	s:		Supporting letter attached as Appendix 4 if necessary. Nil
Ŋ Ap	proved (by TfNSW)		
☑ En	dorsed (by Environmental Represent	ative)	
☐ Re	jected		

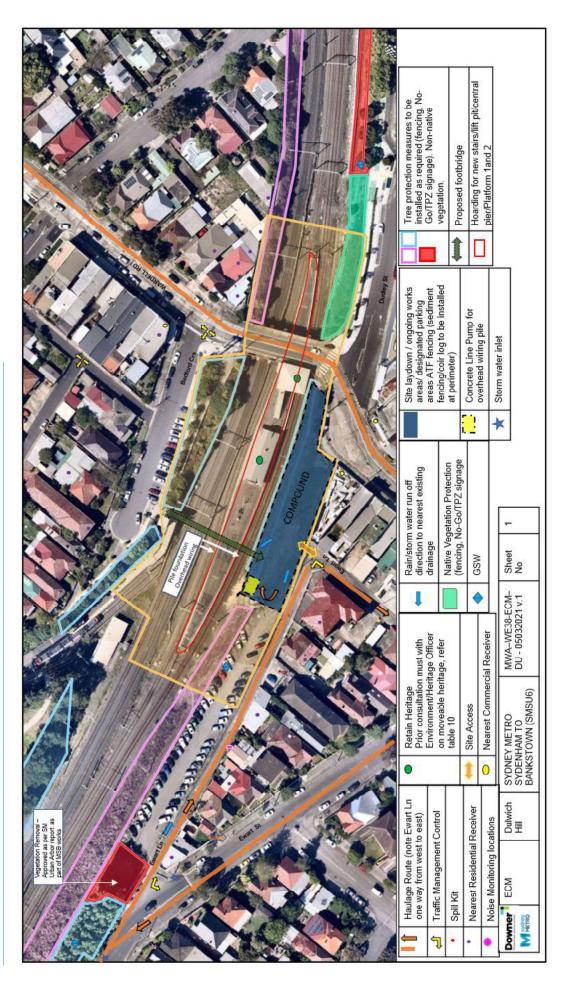
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Appendix 1:

Environmental Control Map and Environmental Risk Assessment.





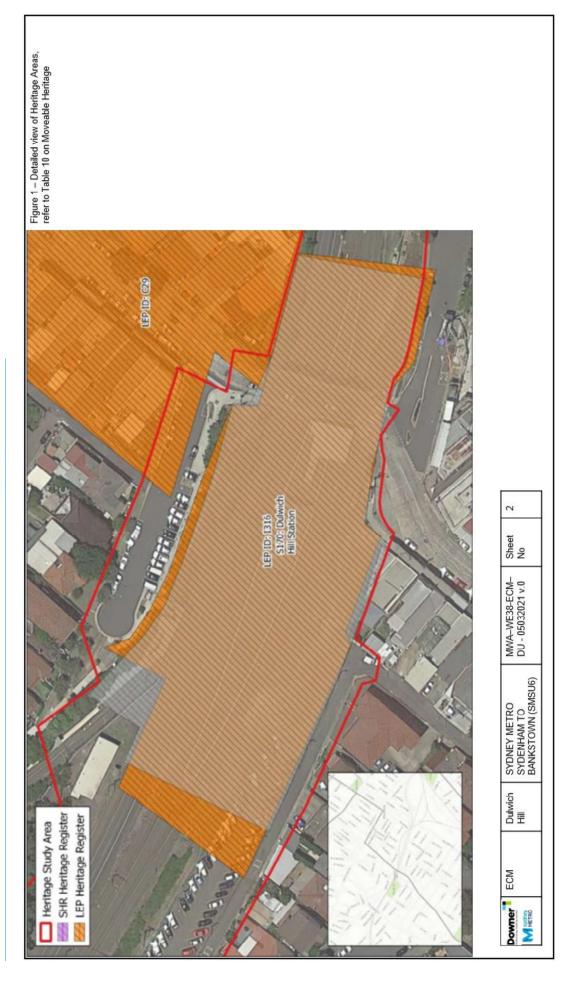




	Image	8 4	
	Recommende d Action	Temporarily remove during works, restore to original location on completion of works.	Temporarily remove during works, restore to platform building storage if possible; relocate to overhead booking office if no platform storage available.
	Likely impacts	Overhead booking office to be preserved, refitted for Metro	Station platform building rooms to be heavily modified.
	Artefact Significanc e/ Condition (2020)	Little to Moderate/ Good	Little to Moderate/ Good
	Sydney Trains Significance / Condition (2019)	Little to Moderate/ Good	Little to Moderate/ Good
	Notes/ History	Standard 'off the shelf safe used throughout entire rail network for select work practices i.e. cash handling, safety and security of assets.	Standard 'off the shelf safe used throughout entire rail network for select work practices i.e. cash handling, safety and security of assets. Might contribute to the interpretation of historical ticketing practice in the railways; historical railways; historical railway furnishings; historical security in the security in the
heritage	Location within station	Overhead Booking Office	Platform building
n moveable	Descripti on of object	Green cast iron safe	White cast iron safe
ich Hill Static	Category	Furnishing	Safe
Table 10: Dulwich Hill Station moveable	Registration	DHL0001	рнгооо2

(9n	SYDNEY METRO SYDENHAM TO BANKSTOWN (SM	Dulwich	ECM	Dulwich SYDNEY METRO	SYDENHAM TO	BANKSTOWN (SMSU6)
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security in the railways etc.



	100	Erosion Sediment Control Plan – Hoardings, Surveying, Pot Holing, Vegetation Clearance (section 5.1.4 of CEMP)
一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一	7.7.	Clearly delineate access points
		Exclusion zones would be designated on construction sites to limit disturbance
10 mg/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m/		No stockpiles of materials or storage of fuels or chemicals would be located adjacent to the existing culverts
14 0 10 5 70 10 10 10 10 10 10 10 10 10 10 10 10 10		Diversion drains/bunds are to be installed on the high side of stockpiles if run—off from upslope lands could impact on the stockpile
Total State of the World		Water is likely to head west away from the station towards the open culvert near the MSB. Install jute mesh post work completion, sed fence boundary and culvert protection.
The state of the s	10 7 15	Undertake progressive stabilisation of ground surfaces as quickly as possible as they are completed rather than at the end of the works program
Man Evenin		Temporary ground covers such as hydraulic soil stabilisers or geotextile fabric will be used as much as possible to stabilise batters, stockpiles and large surface areas
		To cover the scope of works such as surveying and pot holing install localised controls including sediment bags, silt socks, spill kit and geofab to avoid spillage of sediments.
		Locations of nearest existing drainage channels and stormwater inlets to the works are displayed on the ECM (ESCP) map
		Silt socks and or coir logs will be installed around stormwater inlet pits where appropriate and where they will not cause or exacerbate flooding
Pile foundation overhead wiring		All erosion and sediment controls will be inspected by the Environmental Manager (or delegate) at least weekly, before forecast rainfall exceeding 20 mm in 24 hours and before a site closure of two cays or more. Maintenance will be carried out as required prior to the next forecast rainfall event
3		Site supervisors will undertake daily erosion and sediment control checks and record any issues within site diaries. Site supervisors will ensure controls are maintained and in working order
		Rail corridor rain/storm water run off direction to nearest existing drainage channels and stormwater inlets
		Vegatation Clearance, Install jute mesh after works as ground cover to mitigate dust/air pollution and erosion
		Storm water inlet
		Concrete washout wil be confined to designated concrete washout bags within (site compound) check with Environmental Manager on recycling of concrete waste. Concrete washout (to be installed prior to pours, temporarily)
Downer ECM - ESCP	Dulwich	SYDNEY METRO SYDENHAM TO BANKSTOWN MWA-WE38-ECM-DU - 05032021 v.1 Sheet No 4 (SMSU6)

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SMSU6: ENVIRONMENTAL CONTROL MAP - DULWICH HILL STATION

GENERAL		Feb30-Mar20; con	Feb30-Mar20; continual update of this ECM will be undertaken to
Project	Southwest Metro Station Upgrade Works Package 6	suit any specific re mitigation measure	suit any specific requirements for each stages of works, with all mitigation measures approved by SM NER/ER prior to possession.
ECM	This ECM is a supplementary document to the SMSU6 CEMP and prepared in	KEY ENVIRONMENTAL RISKS	TALRISKS
	accordance with CoA SS 8256, SM City & Southwest Sydenham to Bankstown Environmental Impact Statement, SPIR and SR.	Hertage	Dulwich Hill is item of local significance listed on Merrickville LEP 2011 (#1316) and RailCorp s170 bertrage register listing #4801999. All works need to be contained
Activity	Station Upgrade to Metro Standards		Moderate direct and visual impact to items
Site	Dulwich Hill Station		of heritage significance that must be
Planning Approval SSI 8256	SSI 8256		delineated, and all works to proceed in
Document	0		accordance with Moveable Heritage Strategy (Settion 5.2.6 of HMP, Table 10)
Site Awareness	The team will be trained on this ECM, general environmental issues, location of sensitive areas and ERSO controls:		and Meritage Salvage Register (N/A for Construction as per Section 5.1.7 of MMP) and Unexpected Finds Procedure.
	Works will be subject to inspections and approval by TNSW NBR/ER and Downer Erutionmental Team.	Air quality	Monitor access points to public roads; debris on public roads generated by construction is to be removed/cleared.
	This document will be displayed on site notice board at all times	Contamination	Medium risk of unexpected contamination finds: Low risk of plant/equipment soils:

Title Name	Name	Number
WSM/T/MSW	Tim Solomon	0400034207
Environment Manager (NER)		
Downer Project Director	Kristo Bugarija	0428 161 912
Downer Project Engineer	Peter D'Costa	0478 074 294
Downer Site Supervisor	Nick De Palma	0418 555 130
Downer Environment Sustainability Manager	Gareth O'Brien	0428 194 445
Downer Environment Aëvisor	Abe Sharman	0420 989 193
Community	Julie Henderson	0415 161 810
Heritage Advisor	Sandra Wallace	02 9518 8411 (Artefact Heritage)
SM Project Info Line	1800 171 386 1800 612 173 (West)	
TRNSW 24-hr Complaint Line	1800 775 465	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
EPA/OEH Pollution Hotline	131 555	
Emergency	000	
WIRES	1300 094 73	
ACTIVITY DETAIL	ı	ı

nerrage	Dulwich Hill is item of local significance
	listed on Martickville LEP 2011 (#1316) and RailCorp s170 heritage register fisting #4801909. All works need to be contained within the approved work boundary.
	significance that significance that and all works to p with Moveable bon 5.2.6 of HMP, Salvase Resister
	Construction as per Section 5.2.7 of HMP] and Unexpected Finds Procedure.
Air quality	Monitor access points to public roads; debris on public roads generated by construction is to be removed/cleared.
Contamination	Medium risk of unexpected contamination finds; tow ke' of plant/deulpment spilit; tow risk of sedimentation runoff. Works to cease immediately if suspected confamiliation is encountered with area of contamination is encountered with signage. Occupational hygienist to attend and provide recommendation in accordance in accordance with SIMTRISW/ERA/Downer purdelines.
Traffic and Transport	Works located on active train lines with public transport commuters with impacts to current traffic conditions including a mix of pedestrians, cyclists, local paring and road traffic.
Moise	Work compounds situated near sensitive receivers incuding commercial, educational, industrial, residential and place of worship, active and possive recreation areas.

INCIDENT RESPONSE AND REPORTING - Appendix F of CEMP	All incidents would be reported in accordance with SM	nvironmental Incident Classification and Reporting Procedure	-cutchings).
INCIDENT RE	All incidents	Environment	SW-17-000

	A 219 - 276
Mon – Fri: Sat: No works on S	Mon – Fri: 07h00 to 18h00 sat: 08h00 to 18h00 No works on Sundays or public holidays
As per CaAE. working hours Man - Fri: Sar	As per CoAE24 high noise generaling works during standard working hours to be completed suring the following periods: Mon-Fri: 08/00/00 tal.800/00 tal.800/00 tal.800/00 tal.800/00 tal.800/00 tal.800/00 tal.800/00 tal.800

 High noise generating activities near receivers should be carried out in blocks that do not exceed three hours each, with a other hour respite period in between. 	carried a one-	Chegoing note and / or vibration monitoring not limit to OOHW would be undertaking during construction sensitive receivers during critical periods (k , times wh
Out of Hours Works Assessment Procedure (SM ES-9W-310) to be applied, all works outlide standard working hours are considered to a factor of leaver Works (DOMM) and exemine environment materials.	3) to be sidered	noise emissions are expected to be at their highest) is identify and assist in managing high risk noise events. Residential grade mufflers are to be fitted on all mob
out in near. We come, says a sequire approva prior as commencing. The COHW application form \$417-000000115 (enclosed in Appendix D of WAMP) to be used in accordance with	SOUTTS Ce with	plant traes on average (Metro construction projects. Regular inspection and maintenance of all plant and machinery.
SM-17-00005396 City & Southwest out of hours work proto MINIGATION MEASURES	DCO!	Identifies defective slending equipment on the Items
Mitigation measures are based on CoA, REMM, CEMF and CEMP	CEMP	praint by rights compliante concess on the none emissions of all plant and machinery used for the Pro-
and sub-plans (awaiting approval).		would indicate whether noise emissions from plant if were higher than predicted.
Control/Mitigation	Resp	Air brake silencers are correctly installed and fully
All site personnel (including sub-contractors) to have completed the project induction, including: Including and prognits of beasest sensitive.	SS/ EA/ PF	operational for any heavy vehicle Soil and Water ESCP as one section 5.1.4 of SWMP and Mitivation M
receivers, Heritage present on site.		per. • CoAE8, E9, E38-E41
Vegetation to be removed or protected; Access and egress points; Unexpected finds procedure for sensitive areas not		Settion 15 of CEMF Control/Mitigation
limiting to contamination, heritage, flora & fauna. Emergency and lacident response includes incident	All	All chemicals and hazardous liquids would be stored
notification to the undertaken in accordance with the		enclosure.
requirements of CoA A36 and A37 and the Sydney Metro incident and Non-compliance Reporting Procedure SM- 17-Axiopopas.		Spill kits to be located close to active work areas and near chemical and hazardous liquid storage areas as indicated in the FTM.
Pre-start attendance register, and toolbox attendance	SI	All staff would be made aware of the logation of the
No works outside the approved marked boundary.		Vehicles and machinery would be properly maintaine
Ensure, all service identification tasks have been		and routinely inspected to minimise the risk of fuel/o
completes and service locations are marked out prior to commencing work.		neass. In the event of a pollution incident, works would cear
Noise and Vibration - CoA E18-34, SPIR REMM: NVC1 — NVC16, Section 9 of CEMF		the immediate widnity and Site Supervisor would immediately notify the Downer Project Manager who
Control/Miligation Stationary noise courses such as generators will be	Resp	would notify NER/ER and SM Project Director. All sooil to be removed from site would be classified.
enclosed or shielded where practicable.		according to the NSW Waste Classification Guidelines
No sweading or unhecessary shouting or foud stereos/radios on site. No decomine of makesials from height showing of metal	ΨII	and disposed at an appropriate landfill. Material to be reused or stockpiled on site permanently is to be test for contamination per the NEPM (ASC) criteria for
items and slamming of doors. Simultaneous one-salam of ness related within discernible.	150	commercial/industrial land use. Immediately report incidents where water has been
range of a sensitive receiver is to be avoided.		discharged and not wholly contained within the proje
Plan traffic flow, parking and loading/ unloading areas to minimise reversing movements within the site.	3	abdundary. Application as per Water Discharge and Reuse Proces.
Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for	All	(SM ES-PW-309) required followed by approval from Environmental Advisor for any reuse or discharge of water.
any out of hours work. Loading and unloading of materials/deligented to occur as		Any contaminated material stockpiles (asbestos) will covered on-site and short-term material stockpiles (>
far as possible away from sensitive receivers. Plant used intermittently to be throughed down or shut	į,	days not in use) with potential to generate dust will be wetted down or covered to prevent fuglishe dust
down.		emissions or run-off during wet weather. Long-term
As required by ODHW approval, attended noise monitoring to be undertaken at the most impacted	SS/	stockpiles (>30 days) will be stabilised and /or covere accordance with "Blue Book" requirements
receiver location.	7	

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SMSU6: ENVIRONMENTAL CONTROL MAP - DULWICH HILL STATION

A dewatering permit is to be in place for all dewatering activities, including the dewatering of any proundwater.	EA./	Stop all work immediately when the suspected and in
	SS	Manager and Environment H
Air Quality - Appendix D: Environmental Procedures CEMP Cod E2, SPIR REMIM AQ1		Sydney Metro Unexpected Hi SM-18-00105232 - Append
Control/Mitigation	Resp	implemented in case of any u
Cover stockpiles when not in use to prevent wind	/55/	mon-aboriginal heritage item.
erosion and dust. Cover loads on trucks transporting material to and from	#	and heritage advisor will be in
the construction site and securely fix tailgates of road transport trucks prior to loading and immediately after		Consulted for advise. Flora & Fauna - Appendix D. E
unioading. Prevent mud and dirt being tracked onto sealed road		Control/Mitigation
surfaces. If mud or dirt has been tracked out of site,		Unless stated on the ECM or
sweep/remove this material.		Environmental Advisor, no ve
exposed surfaces (e.g., unpaved roads, stockpiles,		Any vegetation not approved
hardstand areas and other exposed surfaces). Observant machinery ont to be left (dino		follow the Flow Chart on clea Appendix E (Procedure 1: Bio
All plant and machinery would be fitted with emission		REMM B2 - Pre-clearing surve
control devices complying with relevant Australian		endangered and threatened
Machinery and plant that will be kept on site will be		clearing occurring. The survey
serviced as per manufactures specifications.		subsequent relocation of spe-
Vehicle movements would be limited to designed entries.		in accordance with the measi
and exits, work areas, haulage routes and parking areas.		biodiversity assessment repo
required, dust control measures such as water spraying		project area would be marker
would be implemented to control the generation of dust.		signposted where practicable
Access points would be inspected to determine whether		disturbance.
sediment is being transferred to the surrounding road		Downwo Wester Turner like a
removed from roads to minimise dust generation.		on shale, Degraded Turpentin
Stabilisation of any exposed surfaces as soon as		forest on shale and Broad-lea
practicable.	9	would be avoided. The location
Daily inspections and regular surveillance would be	55	and worlded
undertaken to identify any vehicles, plant or equipment. That is caused visible emissions. If any defective vehicles.		REMM B5 - Equipment storag
plants or equipment are identified, operation of this		restricted to identified compo
machinery would cease and service/maintenance would be undertaken.		REMM 86 - A trained ecologic
Stockpiles will be maintained and contained		the clearing of native vegetat
appropriately, which could include covering or regular watering to minimise dust.		salvage habitat resources as
		REMM B7 - Priority weeds wo
		accordance with the Bissour
 SPIR REMIM: AH1 – AH5, NAH1 – NAH23 Section 10 of CEMF 		managed in accordance with
Control/Mitigation	Resp	Significance Weed Managem
All personnel working on site are to be aware of all the	ΨW	REMIM LV12 - Trees to be ref.
heritage elements in the work area and "No go" areas to		by establishing Tree Protection
De cleany communicated. Multiple items of heritage significance to consider in the		pruning to be undertaken gui
this ECM, Section 5.2 Built Heritage Mgt and Table 10 in		prepared by a qualified arbor
Moveable Meritage Strategy of HMP) includes platform		Sydney Metro.
buildings, booking offices, retail shop. All these needs to		2) retained trees or trees that
be visibly delineated to minimise the risk of undertaking disturbance.	- 3	removed without approval, a

Suspected and notify Downer Project 6 Environment Heritage Officer	If animals are encountered, leave them alone and	All
to Unexpected Heritage Finds Procedure 05232] - Appendix D of HMP will be	Pa	ΑII
d in case of any unexpected aborigmal or nal heritage item is found on site; be delineated with signage as "no" go" zone,	Modify the route of trenching to avoid any damage to Trees and tree roots. All stockpiles must be located outside of Tree	a a
e advisor will be immediately informed and		
or advece. na - Appendix D. Environmental Procedure: CEMP , REMM SPIR REMIN, CEMF Section 11	Soil with weed material be removed prior to any movement off site. To reduce the spread of weeds no soil in to be transported into the works areas. Ensure	SI
agation ed on the ECM or prior approved by rtal Advisor, no vegetation is to be removed	fresh that all machinery, vehicles and equipment are free of weed material before entering and exiting the works. SE see as	
er section 3.13 Hold Points of CEMP ion not approved for removal or Trimming to flow. Chart or cleaning procedure under	ppendix D: Environmental Procedures C VM7	EMP
for cies or to any and any entaken	Contraction and applicable EPLs are to be addressed prior to despotal and are subject to Bowner approval prior to removal from site.—HOLD 90INT Altrecytable waste would be recycled where possible. Material or spoil that has the potential to contain address or other contramants will be resided and will be	A Has
assessment report. Areas of biodiversity value outside the would be marked on plans, and fenced or where practicable, to prevent unnecessary.	ctor as mpletion of	SS
Impacts to Native and <u>Ann Mather</u> Vegetation title Turpenline - Grey Ironbark open forest sgraded Turpenline - Grey Ironbark open		E .
ide and Braad-leaved frombark – Grey Box) lodded. The locations of these species and sa would be marked on plans, fenced on site, t. Equipment storage and stockpilling would be	Any construction waste generated will be stored in bins. as appropriate. Cover stockpiles with geofab or like material and secure The base to avoid evolon and sediment controls. CoA ETA - Any thems or infrastructure that are	a
o identified compound sites and already 1. A trained ecologist would be present during of native vegetation or removal of potential at to avoid innects on resident fauna and to	asivageable must be identified in the relevant CEMP Sub- pain (Condition CB). Note: reuse of them any include signal boxes, indicators, ballast or other all infrastructure. These thems should be offered to Sydney.	
Itial resources as far as is practicable. Priority weeds would be managed in with the Bioscounty Act 2015. Weeds of informental significance would be accordance with the Weeds of National Agreed Management Guide. Weed Management Guide a protected in a significance would be protected in a significance of the protected in a feet Protection Zone prior to the ment of construction including any tree even for construction including any tree is the universible guided by a tree report. A qualified at borks and upon approve it from a qualified at borks and upon approve it from	ch oon 014, sed	S E
y report any damage to 1) threatened species trees or trees that have been trimmed or thout approval, and all work to stop	SS Coperations (waster) Regulation 2014, or to any other older that can lower in Regulation 2014, or waste. CoA. E76 - All waste must be classified in accordance with the EPA's Waste Classification Guidelines, with	

	¥	S A	Saco	SS M	PE	23	₩	9	Hesp	WHS / SS	S			Resp	All		Resp	₩.
audit purposes.	REMM WM2 - A recycling target of at least 90 per cent would be adopted. REMM WM3 - Spoil would be managed in accordance.	with the spoil management hierarchy. REMM WM4 - Target 100 per cent reuse of reusable spoil.	Traffic COA E46 – E53, E54 (Visual amenity, Lighting) SPIR REMM: Section BO CENIF	Manage traffic in accordance with mitigation measures from Traffic Management Plan.	Detail Road Occupancy License as when tequired.	Implement Traffic Controls as per conditions of approval of TCP by the relevant council.	All vehicles to enter rail corridor from designated access points on site. Plant and mechinery not to be left idling. Padestrian or cyclist access will be mantained in public spaces or refrected as anonourists.	Chemical, Fuel Storage and Use	Control/Mitigation	Any required chemicals on site must be verified and registered in SDS and SDS kept on site.	Place spill kits in compound and portable spill kits in vehicles	Refuelling to occur in designated/soproved area only with spill tray, absorbering hads, socks placed ARI plant and machinery to be daily checked [pre-starts] had relating oil, fuel or other liquids.	Imported Material	Control/Mitigation	All imported material will be sourced from a licensed supplier with onsite storage to only occur with controls in place.	No Go Zone	Control/Mitigation	All construction activities will be restricted to the project boundary. Any activity outside the project boundary must be approved prior by SM /ER

overall scope of works as per research Project works – arriv Volume 1 June 2018	oject Works – SPIR
Station Works	Location/Feature
The existing entrance would be retained and upgraded.	Entry/Exit
New electron contracts accessed from a new station entrance at Bedford Crescent (northern side). The future extension of the new electron	Concourse

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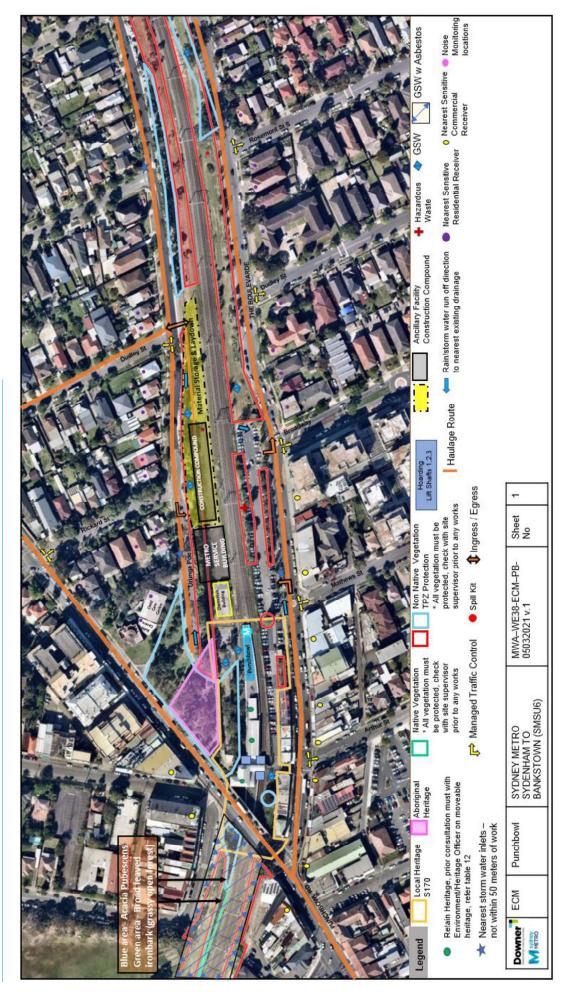
© Sydney Metro 2017



SMSU6: ENVIRONMENTAL CONTROL MAP - DULWICH HILL STATION

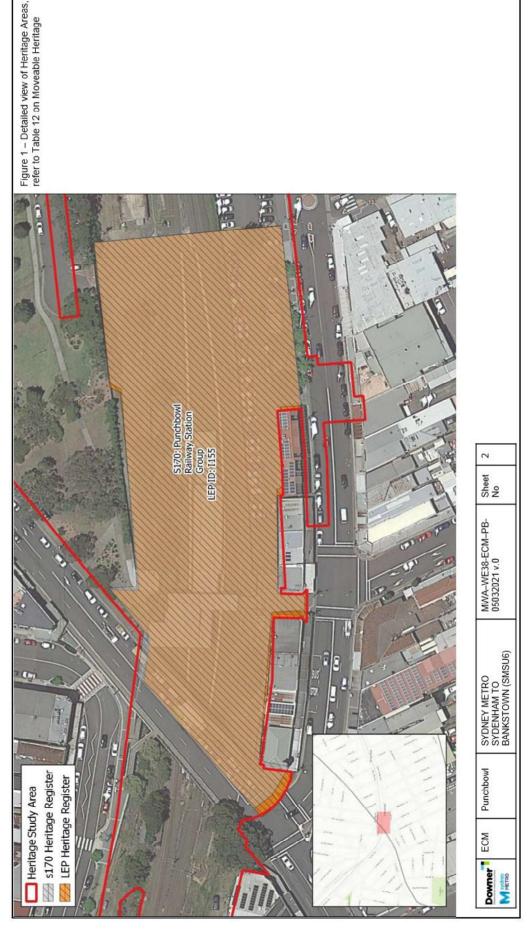
concourse to Ewart Lane has been safeguarded. New pleasted concourse ormoided with	Lift & Grain
new lifts and stairs connecting platform to light rail stop	CHEST SEALS
The existing heritage listed overhead booking office and heritage buildings on platform 1 and 2 retained and repurposed.	Heritage - Booking Office & Platforms 1&2
Existing retail within overhead booking office retained.	Retail Outlet
Station Area	Location/Feature
Existing bus stops on Dudley St and Wardell Rd retained	Bus Stops
Existing pedestrian pathways surrounding the station would be upgraded, including from Ewart Lane to Wardel Road and from Keith Lane to Bedford Crescent.	Pedestrian pathways
The two existing accessible parking spaces on the southern side of the Bedford Crescent retained	Parking - retained
One new accessible parking space provided on the southern side of the Bedford Crescent.	Parking - new
Existing bike parking on Wardell Rd to the south of station and on Bedford Crescent retained and new parking provided.	Bike Parking existing & new
New kiss and ride and taxi facilities provided on the southern side of Bedford Crescent at its eastern end.	Kiss Ride, Taxi











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Image	
Recommended Action	Retain and protect in situ during works
Likely impacts	No works to outside of overhead booking office in this location
Artefact Significance / Condition (2020)	High / Good
Sydney Trains Significance/ Condition (2019)	High / Good
Notes/ History	It was the establishment of a rail network in the mid-1850s that brought about a standard time measure for NSW. The need for accurate time to allow for the timetabling of trains and for passenger movements meant that a common, standard time
Location within station	Overhead Booking Office, external
Description of object	Concourse Wall Clock
Category	Clock
Registration Number	PUN0001

MWA-WE38-ECM-PB- 05032021 v.0
SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Punchbowl
ECM
Downer MacTRO

eΑ

Sheet No





Image				
Recommended Action		Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	
Likely impacts		Booking office to be converted for Sydney Metro multipurpo se room	Booking office to be converted for Sydney Metro multipurpo se room	
Artefact Significance / Condition (2020)		Little to Moderate / Good	Little to Moderate / Good	
Sydney Trains Significance/ Condition (2019)		Little to Moderate / Good	Little to Moderate / Good	Sheet 3 No B
Notes/ History	had to be known at Punchbowl Station. This SRA modern design is representative of a continuation of this railway tradition and relationship of time and the railways	Standard 'off the shelf safe used throughout entire rail network for select work practices i.e. cash handling, safety and security of assets. Might contribute to the interpretation of historical ticketing practice in the railways; historical railway furnishings; historical methods of security in the railways etc.	Standard 'off the shelf safe used throughout entire rail network for select work practices i.e. cash handling, safety and security of assets. Might contribute to the interpretation of historical ticketing practice in the railways; historical railways furnishings; historical methods of security in the railways etc.	MWA-WE38-ECM-PB- Sh 05032021 v.0
Location within station		Overhead Booking Office	Overhead Booking Office	TRO TO V (SMSU6)
Description of object		Cast Iron Safe	Subfloor Safe	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Category		Furniture	Furniture	Punchbowl
Registration		PUN0002	PUN0003	Downer ECM Sydney

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Image				
Recommended Action	Temporarily remove during works and restore to original room. Opportunities to digitise image for heritage interpretation.	Retain and conserve in this location	Retain and conserve in this location	
Likely impacts	Booking office to be converted for Sydney Metro multipurpo se room	Storeroom function and fabric to be conserved	Storeroom function and fabric to be conserved	
Artefact Significance / Condition (2020)	Little / Good	Little / Good	Moderate / Good	
Sydney Trains Significance/ Condition (2019)	Little / Good	Little / Good	Moderate / Good	Sheet 3 No C
Notes/ History	Reprint. Historic image depicting railway workers laying track - presumably at Punchbowl Station. Not located at the Australian Railway Historical Society (ARHS).	Typical railway office furniture - timber desk organiser. Potential prop.	Representative example of a typical railway signalling lamps; signalling lamps; signalling work processes and practices. Illustrative of the developmental change in technologies in signalling and safe working functions in the railways. Also illustrates Sydney Trains previous corporate identity and history of Sydney Trains' and predecessor agencies: Public Transport Commission c. 1970s-80s	MWA-WE38-ECM-PB- 05032021 v.0
Location within station	Overhead Booking Office	Overhead Booking Office storeroom	Overhead Booking Office storeroom	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Description of object	Historic Photo	Timber desk organiser	Orange Hand Lamp - Signalling	12000000
Category	Art and prints	Furniture	Operation al objects	// Punchbowl
Registration	PUN0004	PUN0005	PUN0006	Downer ECM

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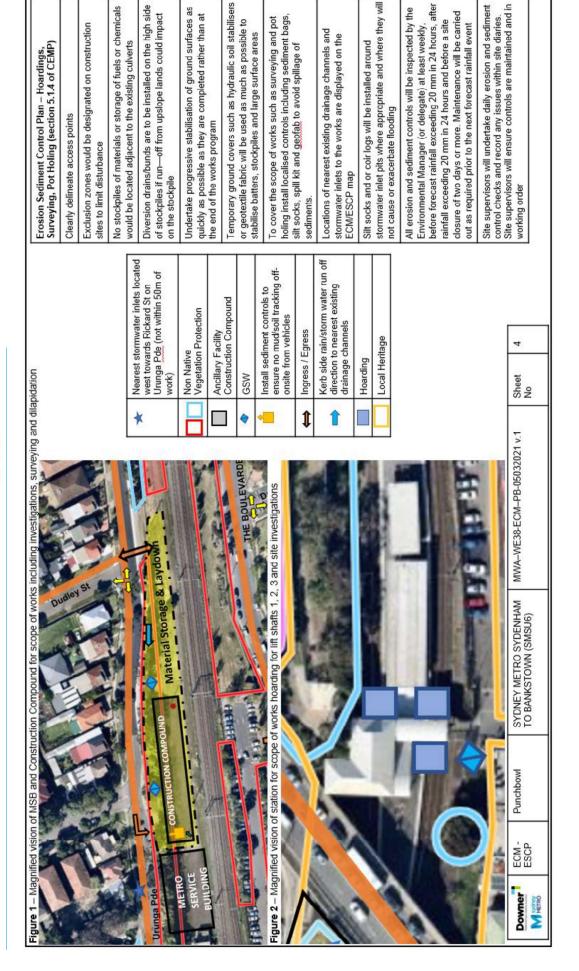


Image		
Recommended Action	Retain and conserve in this location	Retain and conserve in this location
Likely impacts	Storeroom function and fabric to be conserved	Storeroom function and fabric to be conserved
Artefact Significance / Condition (2020)	Little / Good	Moderate / Good
Sydney Trains Significance/ Condition (2019)	Little / Good	Moderate / Good
Notes/ History	Timber desk organiser. Potential prop.	Snapshot of Sydney rail network wit relevant ticketing codes, rare and no longer used across network now that tickets have been largely replaced by electronic system. Tangible link to the past in terms of historic ticketing practice in the railways.
Location within station	Overhead Booking Office storeroom	Overhead Booking Office storeroom
Description of object	Timber desk Tray	Network Map with Ticket Codes
Category	Furniture	Maps
Registration	PUN0008	PUN0009

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5	Funcinbowi	ISU6)	05032021 v.0	No	20

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SMSU6: ENVIRONMENTAL CONTROL MAP - PUNCHBOWL STATION

GENERAL		Feb20-Mar20; continu
Project	Southwest Metro Station Upgrade Works Package 6	suit any specific regul mitigation measures a
ECM	This ECM is a supplementary document to the SMSU6 CEMP and prepared in caronitance with Cad SSI 8256, SM Clip & Southwest Sydenham to Banktown Environmental Impact Statement, SPIR and SR.	KEY ERVISONMENTAL Heritage
Activity	Station Upgrade to Metro Standards	> <
Site	Punchbowl Station	
Planning Approval	55/8256	9
Document Version	0	a vi
Site Awareness	The team will be trained on this ECM, sensitive areas and ERSD controls; Works will be subject to inspections and approval by TNISM NER/ER and Downer Environmental Years, This document will be displayed on site notice bear at all times.	80 80 4 E B 8

Title Name	Name	Number	
SM/TINSW Environment Manager (NER)	Tim Solomon	0400034207	Contr
Downer Project Director	Kristo Bugarija	0428 161 912	
Downer Project Engineer	Peter D'Costa	0478 074 294	
Downer Site Supervisor	Nick De Palma	0418 555 130	
Downer Environment Sustainability Manager	Gareth O'Brien	0428 194 445	Trans
Downer Environment Advisor	Abe Starman	0420 989 193	Noise
Community	Julie Henderson	0415 161 810	
Heritage Advisor	Sandra Wallace	02 9518 8411 (Artefact Hentage)	INCID
SM Project Info Line	1800 171 386 1800 612 173 (West)	1	Ehvir
TFNSW 24-hr Complaint Line	1800 775 465		
EPA/OEH Pollution Hotline	131 555		09
Emergency	000		
WIRES	1300 094 73		WOR
ACTIVITY DETAIL Description	I		Vibra
Early works, sittle as	Early works site establishment minor ancillary facilities	scillary facilities	

Feb20-Mar20; co sult any specific i mitigation measu	Feb20-Mar20; continual update of this ECM will be undertaken to suit any specific requirements for each stages of works, with all mitigation measures approved by SM NER/EB grior to possession.	Sat: 08H00 to 18H00 No works on Sundays or public holidays
Heritage Punchb Punchb RailCon #48020	Punchbowl is tern of local significance listed on Casterbury LEP 2012 (#1555) and RailCorp s170 heritage register listing states of the state of the contained within the approved work boundary. Moderate direct and visual impact to items of heritage significance that must be delineated, and all works to proceed in accordance with Moveable Heritage Strategy (Section 5.2.6 of HAM; Table 12) and Heritage Salage Register (MA) for Construction as per Section 5.2.7 of HAM; or Construction may disturb potential Aboriginal schaeological deposit of moderate significance and low to moderate page-thal for that deposits (\$28.9 PAD 02) adjacent to station.	working about 1991. Working about 1991 and 1992
Air quality Contamination	Monitor access points to public roads; debrit, on public roads generated by construction is to be removed/cleared. Medium risk of unexpected contamination finds, Low risk of plant/equipment spills; Low risk of sedimentation runoff; Work to cease immediately if suspected contamination is encountered with area of	completed the project induction, including: Location and proximity of nearest sensitive receivers. Heritage present on site. Vegetation to be removed or protectied: Access and egress points: Unexpected finds procedure for sensitive areas not limiting to contamination, heritage, flora & flauna.
Transport	contamination delineated with signage; Occupational Nigeniat to attend and provider recommendations in accordance with SMyTINSW/EPA/Downer guidelines. Works incepted on active train lines with public transport commutes with impacts to current traffic conditions including a mix of pedestrians, cyclists, local parring and road	Emergency and Incident response includes incident monification to be underlished in accordance with the requirements of CoA 436 and 437 and the Sydney Metro incident and Non-compliance Reporting Procedure SM-17-Accordage. Pre-start attendance register, and toolbox attendance register are signed by all site personnel. No works outside the approved marked boundary.
Noise	Work Compounds, situated near sensitive receivers including commercial, educational, industrial, residential and place of worship, active and passive recreation areas.	Ensure all service identification tasks have been completed and service locations are marked out prior to commercing work. Note and Vibration - CoA E18-34, SPIR REVMR: NVC1 - NVC16, Section 9 of CEMF Control/Nitgation
INCIDENT RESPONS All incidents would Environmental Incid (SM-17-0000096).	INCIDENT RESPONSE AND REPORTING - Appendix F of CEMP All Incidents would be reported in accordance with SM Finitronmental Intellent Classification and Reporting Procedure [SM-17-00000096].	Stationary noise sources such as generators will be enclosed or shelded where gratitiable. No swearing or unnecessary shouring or loud stereos/sadios on site. No dropping of mattel list from height, throwing of metal items and slamming of doors.
WORKING HOURS - City and South Vibration Strategy (SM ES-51-210) * OA BEET STRANGE STRANGE STRANGE * OA BEET STRANGE STRANGE Mon — Frits.	WORKING HOURS - City and Southwest Construction Noise and Vibration Strategy (SM E-ST-210) * Security (SM E-ST-210) * Constant And California of NYAN * Constant And California of NYAN * Constant And California of NYAN ** Constant And Califor	Simultaneous operation of noisy plant within discernible range of a sensitive receiver is to be avoided. Plant teffic tow, parking and loading/unloading areas to minimize eversing movements within the size. Non-tonal reversing beepers (or an equivalent mechanism) mass be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work.

DIVIDED TRIVIAL		Loading and unibading of materials, betweenes to occur as	
ys or public holidays		far as possible away from sensitive receivers.	
th noise generating works during standard	andard	clant used micronitemany to be uniqued down of shut down.	
completed during the following periods:	150	As required by OOHW approval, attended noise	253/
ShD0 to 18h00		monitoring to be undertaken at the most impacted	EA/
8H00 to 13H00		receiver location.	PE
ting activities near receivers should be carried	carried	Ongoing noise and / or vibration monitoring not limiting	
do not exceed three hours each, with a one-	a one-	to OOHW would be undertaking during construction at	
in between.		sensitive receivers during critical periods (ig times when	
Control of the Contro	O Part Part	noise emissions are expected to be at their highest) to	
Assessment Procedure (3W ES-PW-310) to be	010	identify and assist in managing high risk noise events.	4
uiside standard working hours are considered	Deted	Residential grade mufflers are to be fitted on all mobile	Я
KS (DDHW) and require approval prior to	COUNTY CO	plant used on Sydney Metro construction projects.	
COHW application form SW-17-DUGGETS	CITION	Regular inspection and maintenance of all plant and	
dix D of MVMP to be used in accordance with	HIM &	machinery	
by & Southwest out of haurs work protocol.	ocol.	Identifies defective silenting equipment on the items of	
JRES		plant by regular compliance checks on the noise	
s are based on CoA, REMM, CEMF and CEMP	CEMP	emissions of all plant and machinery used for the Project	
ting approval).		would indicate whether noise emissions from plant items	
		were higher than predicted.	
Constitution of the Consti	Resp	Air brake silencers are correctly installed and fully	
scluding sub-contractors) to have	/55	operational for any heavy vehicle	
ect induction, including:	EA/	Soil and Water	
roximity of nearest sensitive	H.	ESCP as per section 5.1.4 of SWMP and Mitigation Measures as	20 20
	ê		
nt on life;		• CoA ES . E9. E38-E41	
e removed or protected		ADDITIONAL CONTRACTOR OF THE ASSESSMENT OF THE A	
100000000000000000000000000000000000000			
de producidade por fore considera accesa nos		Section 25 of CENT	
de procedure for sensitive areas flor		Control/Mitigation	Kesp
armination, necleage, not a sauria.	4.11	All chemicals and hazardous liquids would be stored	J.d.
dent response includes incluent.		away from drainage lines in a bunded and impervious	
idertaken in accordance with the		enclosure.	
A Aste and As7 and the sydney Metro		Spill kits to be located close to active work areas and	S
ompliance Reporting Procedure SM-		near chemical and hazardous liquid storage areas as	
		indicated in the ECM.	
e register, and topibox attendance	Я	All staff would be made aware of the location of the spill	SS
by all site personnel.		kits.	# H
e approved marked boundary.		Vehicles and machinery would be properly maintained	55
entification tasks have been		and routinely inspected to minimise the risk of fuel/oil	
nce locations are marked out prior to		Seak).	
Con Ede 34 Coto Decide Niver		in the event of a pollution incident, works would cease in	All
CEME		the minediate vibrity and site supervisor would	
	Bach	emercialisty holing the bowser project manager who	
mes such as generators will be	35	All travel his har parentials from the tennels has classified	700
distance mentioned in	ĺ	Deligonal or personal results from the second or the secon	ì
ecessary shouting or loud	ΨV	according to the NSW Wasse Liassification surgerines	ii.
0		reused or stockniled on site permanently is to be tested	
estals from height, throwing of metal		for contamination per the NEPM (ASC) criteria for	
t of doors.		commercial/industrial land use.	
ition of noisy plant within discernible		Immediately report incidents where water has been	۱
receiver is to be avoided.		discharged and not wholly contained within the project	
rking and loading/ unloading areas to	Я	boundary.	44
movements within the site.		Application as per Water Discharge and Keuse Procedure	2
beepers (or an equivalent	W W	(SM ES-PW-309) required followed by approval from Engineering Addeor for any remain of flathands of	
e fitted and used on all tonstruction		enviolence advisor for any reuse of uncharge of	
- plant regularly used on site and for		Water.	_

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SMSU6: ENVIRONMENTAL CONTROL MAP - PUNCHBOWL STATION

Any yoo thannised material stockpiles (abstancial will be why you thannised material stockpiles (abstancial will be wetted down or covered to prevent lightwe dust was extend down or covered to prevent lightwe dust massions or run-off during wet weather. Long-term netsions or run-off during wet weather. Long-term tockpiles (>30 days) will be stabilised and for covered in secondance with "Blue Book" requirements accordance with "Blue Book" requirements and custing a permit as to be in place for all deviatering strivingly. Appendix O. Environmental Procedures GMM Court Colores stockpiles when not in use to prevent wind colores stockpiles when not in use to prevent wind color loads on trucks transporting material to and from the construction site and securely first highers of road management trucks prior to loading and immediately after miloading. The construction with an article strategic run to dampen and dust in material.	SSS PEL/SSS SSSS SSSS SSSS SSSS SSSS SSSS SSS	All personnel working on site are to be aware of all interiornel working on site are to be aware of all interiors, be clearly communicated. Multiple items of hertage significance to consider I the CEM, Section 5. 2 that Hertages Ags and Table & Moveeble Hertage Stategy of HMP) include a platf station building, booking offices. All these needs to visibly defineasted to ninimise the risk of undertaking disturbance. Stop all work immediately when items/ areas of poil meritage are suspected and notify bowner Project. Massager and Environment Hertage Officer. Sydney Metro Unexpected Heritage Finds Procedum [SM-18000523] — Appendix of of HMP well be implemented in case of any unexpected aboritymals on non-aboritymal heritage item is found on site; on the Histage advicer will be immediately informed a consulted for action. For a State of on the CEM or printer approved by Force & State of on the CEM or printer approved by Force and Consulted for action.
instructions are and to the report of an exerci- instruction and machinery not to be left (diling, and leaving and machinery would be fitted with emission control devices complying with relevant Australian Standards and all the second of		Any vegetation not approved for removal or trimmit follow the Flow Chart on clearing procedure under Appendix E (Procedure 1: Blodiversity) of CEMP REMM 22. Pre-clearing surveys and inspections for
Machinery and plant that will be kept on site will be enviced as per manufactures specifications. Helpfiel movements would be limited to designed entries and exits, work areas, haulage routes and parking areas. Dust generation would be monitored viosally, and where equired, dust control measures such as water spraying would be implemented to control the generation of dist. Access points would be inspected to determine whether deelement is being transferred to the sucuruling pad relevants. If retuired, sediment would be romaning and retwork. If retuired, sediment would be romaning to retwork. If retuired, sediment would be remained.		endangered and threatened flota and fauns species would be undertaken by qualified ecologists prior to clearing orcutring. The surveys and inspections, and subsequent relocation of species, would be undertain a scondarine with the measures, provided in the biodiversity assessment report. REMM B3 - Areas of biodiversity value outside the project area would be marked on plans, and feticed signosted where practicable, to prevent unnecessad disturbance.
removed from roads to minimise dust generation. Stabilisation of any exposed surfaces as soon as positivable.		REMM B4 - Impacts to Native and <u>Mon Mathie</u> Veget (Downy Wattle Turpentine - Grey fronback open for on shale, Degraded Turpentine - Grey fronback open
Dask Inspections and regular surveillance would be undertaken to identify any vehicles, plant or equipment that is causing stuble emissions. If any defective vehicles, slants or equipment are identified, operation of this machinery would <u>cause</u> and service/maintenance would be undertaken.	ы	forest on shale and Broad-leaved fronbark – Grey Bo would be avoided. The locations of these species an communities would be marked on plans, fenced on and avoided. REMM BS – Equipment storage and stockpilling would restricted to identifies compound sites and already
Stockpiles will be maintained and contained ppropriately, which could include covering or regular watering to minimise dust.		Cleared land. REMM Be. A trained cologist would be present due the clearing of native vegetation or removal of pote fauma habitat to avoid impacts on resident fauma an
Heritage Coa Elde E7 Coa Elde E7 Setton 10 of CEMF Setton 10 of CEMF	Resp	salvage habitat resources as far as is practicable. REMM 87 - Proncity weeks would be managed in accordance with the Biosocurty Act 2015. Weeks of national environmental significance would be managed in accordance with the Weeds of National

	প্র	Ψ	All	SS	SS	SS			EMP	Resp	Ail		a	All	S	80	03		S EA/
REMM IV12 - Trees to be retained would be protected by establishing Tree Protected a Zone prior to the commencement of construction including any free pruning to be undertaken guided by a tree report propared by a qualified abbotist and upon approval from Switney Metro.	Immediately report any damage to 1) threate-red species 2) retained trees or trees that have been trimmed or removed without approval, and all work to stop minediately.	If animals are encountered, leave them alone and	contact site supervisor and environmental Advisor. Protection "no go zone" to be place for any threatened species.	Modify the route of trenching to avoid any damage to trees and tree roots.	All stockpiles must be located outside of Tree Protection/Drip Zone	Soil with weed material be removed prior to any movement of site. To reduce the spread of weeds no soil in to be transported into the works sees. Ensure	that all machinery, vehicles and equipment are free of	weed material before entering and exiting the works areas.	Waste and Spoil - Appendix D. Environmental Procedures CEMP CoA – E73 to E76 REMM – WMI to WM7	Control/Mitigation	Waste disposal locations and applicable FD1s are to be dentified prior to disposal and are subject to Downer approval prior to demoval from site. – HOLD POINT All recyclable waste would be recycled where possible. Material or spoil that has the potential to contain abbestos or other containmants will be texted and will be abbestos or other containmants will be texted and will be	managed by an appropriately licensed contractor as required.	All wastes will be removed from site at the completion of the project and will be tracked.	In accordance with CoA E40, the Unexpected Contaminated Land Procedure and Asbestos Finds	the event of an unexpected find, Any construction waste generated will be stored in bins.	as appropriate. Cover stockpies with geofabor like material and secure	the base to avoid erosion and sediment controls. CoA E73 - Any items or infrastructure that are	awayagente miss or exercising on the recent curving plan (Condition CE). Note: reuse of items may include signal boxes, indicators, ballast or other rail in infrastructure. These items should be offerred to Sydney Trains or reuse.	CoA E74 - The importation of waste and the storage, treatment, priceshing, reprocessing or disposal of such waste must comply with the Protection of the Environment Denations Act 1997, under the Protection of the Environment Operations, (Waste) Regulation 2014,
A		0				AP Resp	55/	35	43	EA		SS / EA					S	43	
ng on site are to be aware of all the in the work area and "No go" areas to itseke." Itseke. erkage significance to consider (reference and a second of the second of th	owing offices. All these needs to be a minimise the risk of undertaking distely when items/ areas of potential	onnent Heritage Officer.	- Appendix D of MMP will be to dany unexpected aboriginal or	tage item is found on site; eared with signage as 'no' go' zone,	or will be immediately informed and	Dendix D: Environmental Procedures CEMP A SPIR REMIN, CEMF Section 11	e ECM or prior approved by	sor, no vegetation is to be removed on 3.13 Hold Points of CEMP	approved for removal or trimming to art on clearing procedure under ture 1: Blodiversity) of CEMP.	aring surveys and inspections for	reatened flora and fauna species en by qualified ecologists prior to any The surveys and inspections, and any tion of species, would be undertaken the measures provided in the ment report.	If biodiversity value putside the be marked on plans, and fenced or	practicable, to prevent unnecessary	s to Native and Non Native Vegetation pertine - Grey Ironbark open forest Turnenting Grey Ironbark open	Broad-leaved Ironbark – Grey Box) The locations of these species and	d be marked on plans, fenced on site,	ent storage and stockpiling would be fled compound sites and already	ed ecologist would be present during we vegetation or removal of potential oid impacts on resident fauna and to ources as far as is practicable.	weeds would be managed in the Bossouring Act 2012. Weeds of small significance would be anne with the Weeds of National Management Guide.

and WHS / 55 sin 55 only starts)
No chemicals or fuel required to be stared onsite. Any required chemicals on site must be verified and registered in 5DS and SDS kept on site. Bees spill kits in compound and portable spill kits in vehicles. Netholise to occur in designated/approved area only with spill tray, absorbent pads, socks slaced Alf Jahni and machinery to be daily checked [pre-starts] to ensure a leaking on, fuel or other liquids. Importable Machinery to present the companion of t
No chemical or fur after registered them the registered in SDS are registered in SDS are spill kits in convenient to eccur websites and the spill kits in convenient to eccur with spill tray, absorbed to ensure in leaking thoughts August and maching to ensure in leaking thingered Nacide and convenient to ensure and the spill and the spill and the spill and the spill and maching the spill and the spill

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SMSU6: ENVIRONMENTAL CONTROL MAP - PUNCHBOWL STATION

The existing entrance would be retained and upgraded.	Entry/Exit
Existing concourse footbridge extended for new lifts and stairs.	Cancourse
Three new lifts and two new stairs provided & replace existing stairs to both entrances.	Lift & Stairs
The existing heritage listed platform relevelled & retain station building plus overhead booking office.	Heritage – Piatform, station building & booking office
Station Area	Location/Feature
Retain existing bus stops on Punchbowl Road and The Boulevarde.	Bus Stops
New pedestrian crossing on Punchbowl Road north-east of Sugst, Place.	Pedestrian crossing
Retain & upgrade existing pedestrian underpass below Punchbowi Road.	Pedestrian underpass
Retain existing parking adjacent to the southern station entrance.	Parking - retained
New bike parking at Northern and Southern station entrances.	Bike Parkingnew
The second secon	Kiss Ride, Taxi
Kerbside facilities provided on the The Boulevarde	Kerbside



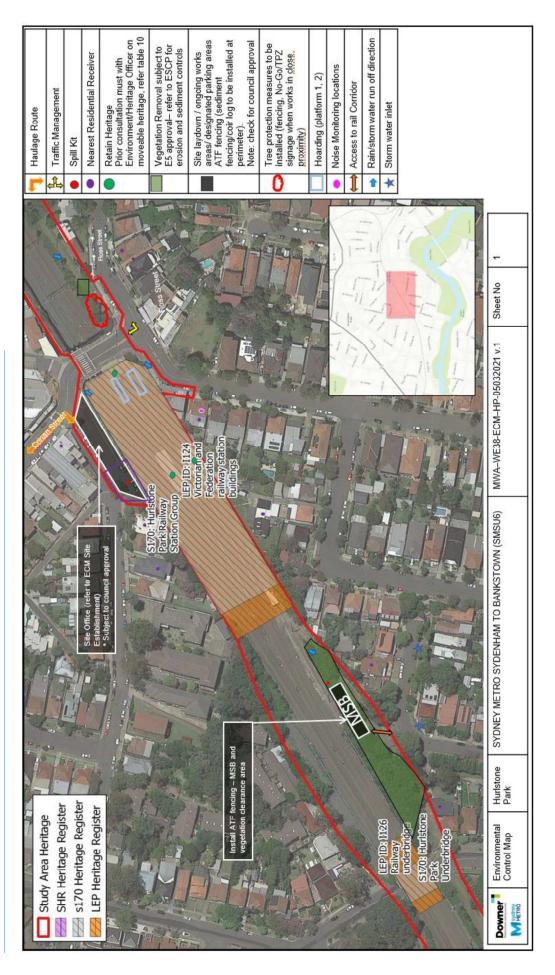
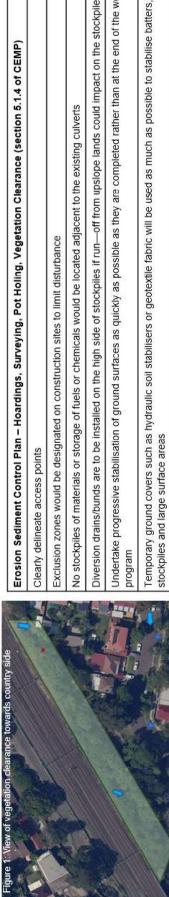






Table 10:	Hurlstone Park	Station mov	Table 10: Hurlstone Park Station moveable heritage						
Registration	ion Category	Description of object	Location within station	Notes/ History	Sydney Trains Significance / Condition (2019)	Artefact Significanc e/ Condition (2020)	Likely impacts	Recommende d Action	Image
HRL0001	Clock	Clock 'PTC of NSW'	Overhead Booking Office	It was the establishment of a rail network in the mid1850s that brought about a standard time measure for NSW. The need for accurate time to allow for the timetabling of trains and for passenger movements meant that a common, standard time had to be known at Huristone Park Station. This PTC modem design is representative of a continuation of this railway tradition and relationship of time and the railways. PTC c. 1970-80s.	High / Good	High / Good	Overhead booking office to be reused as "multipurpo se room"	Temporarily remove during works and restore to original room.	
HRL0002	2 Clock	Timatic Clock 'SRA of NSW'	Overhead Booking Office	This SRA modem design is representative of a continuation of this railway tradition and relationship of time and the railways. SRA c. 1980s-2003.	High / Good	High / Good	Overhead booking office to be reused as "multipurpo se room"	Temporarily remove during works and restore to original room.	
Downer Wadney	Environmental Control Map	Hurlstone SY Park (SN	SYDNEY METRO SYDENHAM (SMSU6)	TO BANKSTOWN	MWA-WE38-ECM-HP-05032021 v.0	2021 v.0 Sheet No	t No 2		







Erosion Sediment Control Plan – Hoardings, Surveying, Pot Holing, Vegetation Clearance (section 5.1.4 of CEMP)

Clearly delineate access points

Exclusion zones would be designated on construction sites to limit disturbance

No stockpiles of materials or storage of fuels or chemicals would be located adjacent to the existing culverts

Diversion drains/bunds are to be installed on the high side of stockpiles if run—off from upslope lands could impact on the stockpile

Undertake progressive stabilisation of ground surfaces as quickly as possible as they are completed rather than at the end of the works program

To cover the scope of works such as surveying and pot holing install localised controls including sediment bags, silt socks, spill kit and stockpiles and large surface areas

geofab to avoid spillage of sediments

Locations of nearest existing drainage channels and stormwater inlets to the works are displayed on the ECM (ESCP) map

Silt socks and or coir logs will be installed around stormwater inlet pits where appropriate and where they will not cause or exacerbate flooding All erosion and sediment controls will be inspected by the Environmental Manager (or delegate) at least weekly, before forecast rainfall exceeding 20 mm in 24 hours, after rainfall exceeding 20 mm in 24 hours and before a site closure of two days or more. Maintenance will be carried out as required prior to the next forecast rainfall event

Site supervisors will undertake daily erosion and sediment control checks and record any issues within site diaries. Site supervisors will ensure controls are maintained and in working order

1	Figure 2: Storm water run off direction from west to east on Floss St, no storm water inlet within 80m of works.	_
	Figure 1: Tree clearance on the embankment within rail corridor, the flow of water is southwards towards Railway St. Ensure a combination of silt socks, sediment fence, coir logs is installed to separate onsite & offsite water. Protect storm water drains by installing above combinations od sediment controls.	
		_

N Sydney Downer

Hurlstone Park Environmental Control Map -ESCP

SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)

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(Uncontrolled when printed)







Site supervisors will undertake daily erosion and sediment control checks and Erosion Sediment Control Plan - Hoardings, Surveying, Pot Holing, FRP Upon the completion of works install jute mesh (100% biodegradable) on the mm in 24 hours, after rainfall exceeding 20 mm in 24 hours and before a site closure of two days or more. Maintenance will be carried out as required prior record any issues within site diaries. Site supervisors will ensure controls are Install jute mesh after works as ground cover to mitigate dust/air Install geofab pre works at storm water inlet located in work area Where feasible use netting during tree removal to contain vegetation debris, Manager (or delegate) at least weekly, before forecast rainfall exceeding 20 middle of the embankment to ensure no sediment falls in the water channel. The onsite environment manager and site supervisor to regularly check the Update and replenish existing sediment fence at the boundary to separate Install sediment fence at the bottom the embankment and coir logs in the Rain/Storm water drain inlet located on Railway St. Inlet to be All erosion and sediment controls will be inspected by the Environmental Cover any open/exposed storm water drains (located on Railway St). embankment from tree clearance area towards stormwater channel. Install sediment fence at the bottom of the embankment Vegetation Removal in accordance with E5 tree report • • • Install coir logs and secure by pinning to ground Jute mesh to be rolled out and pinned on the embankment. minor spoil and sediments arising from devegetation. condition of jute mesh before/during/after works. Direction of storm/rain water flow protected with sediment socks. to the next forecast rainfall event maintained and in working order pollution and erosion Ensure coir logs are pinned.

Environmental Control Map - ESCP
Downer N sydney

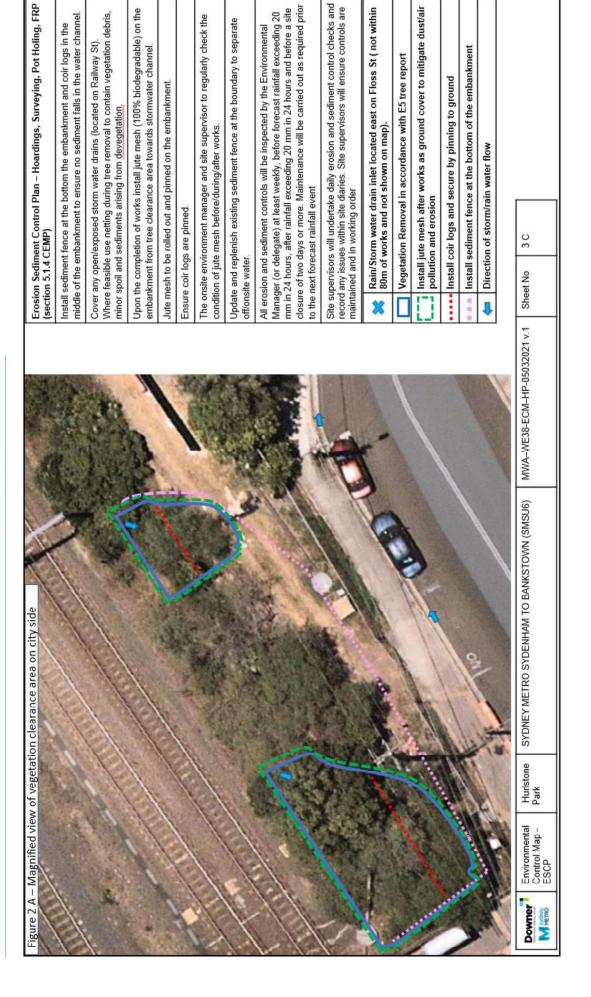
SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6) Hurlstone Park

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SMSU6: ENVIRONMENTAL CONTROL MAP - HURLSTONE PARK STATION

GENERAL	
Project	Southwest Metro Station Upgrade Works Package 6
ECM	This ECM is a supplementary document to the SMSU6 CEMP and prepared in accordance with CoA SSI 8256, SM CEMP SOUTHWEST Systeman to Bankstown Environmental Impact Statement, SPIR and SR.
Activity	Station Upgrade to Metro Standards
Sile	Huristone Park Station
Planning Approval	551 8256
Document	0
Sile Awareness	The team will be trained on this ECIA general varionmental issue, location of sensitive areas and ERSO controls. Works will be subject for inspections and approved in TRISSW NER/ER and Downer Environmental Team. This document will be displayed on site

Title Name	Name	Number
SM/TfMSW Ervironment Manager (NER)	Tim Solomon	0400034207
Downer Project Director	Kristo Bugarija	0428 161 912
Downer Project Engineer	Peter D'Costa	0478 074 294
Downer Site Supervisor	Nick De Palma	0418 555 130
Downer Ervironment Sustainability Manager	Gareth O'Brien	0428 194 445
Downer Ervironment Advisor	Abe Sharman	0420989193
Community Manager	Julie Henderson	0415 161 810
Heritage Advisor	Sandra Wallace	(Artefact Heritage)
SM Project Info Line	1800 171 386 1800 612 173 (West)	i i
TRVSW 24-hr Complaint Line	1800 775 465	
EPA/DEH Pollution Hoffine	131 555	
Emergency	000	
WIRES	1300 094 73	
ACTIVITY DETAIL		

As per CoAE24 high noise generating works working brondersed aims give follow Heritage. Huristone Park is listed on RailCorp sizo. Huristone Huristone Park is listed on RailCorp sizo. Sat. — CoRHOO to 13NOO And the Responsed Work broaders dained from 1 secondame With Moseable Heritage Saturation as per Section 5.2.7 of HMP) And quality All works to present of monitor access points to public coade generating and the present on the moberate significant heritage lients include Contamination Malicon provide received in the project including sub-contractors for moberate significant heritage lients include Contamination Malicon provide receivers include significant heritage lients include Contamination Malicon provide receivers including sub-contractors for moberate significant heritage lients including sub-contractors for moberate significant heritage lients including sub-contractors for public coade immediately listing personal in secondame with significant contamination delenated with signage: Contamination Malicon secondame with impacts to contamination secondame with impacts to contamination delenated on active train lines with impacts to contamination delenated on active train lines with impacts to contamination secondame with impacts to contaminate swith impacts to contamination secondame with impacts to contaminate swith impacts to complete a provide the present in secure sections single present on significance. W	Feb-20-Mar20; co	Feb-20-Mar20; continua update of this ECM will be undertaken	Sat: 08h00 to 18h00
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Hunksone Park is listed on RailCop \$170 her tage register listing underhinder with the 1805.737 & Carberbuy (EP 2012 H126 and 9805.737 & Carberbuy (EP 2012 H126 and 9805.737 & Carberbuy (EP 2012 H126 and work boundary, within the approved work boundary. Moterate direct/visual impacts to items of hertage significance that must be hertage significance that must be hertage significance that must be hertage significance with Moveste Hertage Stritagy (Section 5.2.5 of HMP) and Hertage Shape Region 5.2.5 of HMP) and Hertage Shape Region 5.2.5 of HMP and Hertage Shape Region 5.2.7 of HMP and Hertage Shape Region 5.2.7 of HMP and Director with Moveste Hertage Hertage Stritagy (Section 5.2.5 of HMP) and Unexpected Finds Procedure. Some significant hertage thems include 1911-1919 Type 11 Buildings would be conserved and three footbridges with Moviles stores spinist to public roads; generated by contruction is to be removed/clickarse. Melium risk of unexpected contamination flows; Low risk of unexpected contamination with Shylmbourner galdelines. Works to cease immediately it supered contamination buildings amin of presentions, cyclick, local paring and road traffic. Works Jobsted on active train lines with provide recommendations in actoridations in other traffic. Works Jobsted on active train lines with present traffic conditions including a mic of presentions, cyclick, local paring and road traffic and passive rectreation areas.			As per CoAE24 high noise generating works
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hertage significance that must be delineated, and all works to proceed in accordance with Moveable Hertage Stringsy (Section 5.2.6 of HMP) and 10.0 of Moveable Hertage Stringsy (Section 5.2.6 of HMP) and Understand Stringsy (Section 5.2.6 of HMP) and Understand Stringsy (Section 5.2.0 of HMP) and Stringsy (Section 5.2.0 of Section		Moderate direct/visual impacts to items of	Out of Hours Works Assessment Procedure (SM)
defineated, and all works to proceed in accordance with Movesbe Heritage Stritagy (Section 5.2.5 of HMP, Table 100) and Heritage Shayage Register (N/A for Construction as per Section 5.2.7 of HMP) and Unexpected Finds Procedure. Some significant heritage thems include Some significant heritage thems included by Contracting Some significant of the Contraction Some significant with the Some significant of the Some significant in accordance with Source Compational hygienist to attend and contramination in encountered with mack to the provide recommendations in actoridance with Source Some significant in active that Index with the current traffic conditions including a mic of precentings, cyclick, local paring and road traffic. Work compounds situated near sensitive eccevers including commercial, selectional, industrial, residential and passive rectreation areas.		hertage significance that must be	applied, all works outside standard working hou
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Controlled by an Section 2.4, of men's and Unexpected finds Procedure. Some significant heritage term; include 1991-1919 type 11 Buildings with moberate significants. Monitor access points to public roads, detris or public roads generated by contruction is to be removed/cleared. Monitor access points to public roads, detris or public roads generated by contruction is to be removed/cleared. Medium risk of unexpected contamination into the state of the s		and mentage savage negation (N/A for	SMITH A COURSES SHOULD BE SOUTHWEST BUT OF HUBBIN
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concerved and three footbridges with moberate significance. Monitor access points to public roads; debris on public roads generated by confurtation is to be removed/clicared. Monitor access points to public roads; debris on public roads generated by the public roads. Medium risk of unexpected contamination and the public for the of sealmentation numbers. Works to cease immediately it suspected contamination of elemented with signage; Compational hygienist to attend and contamination definerated with signage; Compational hygienist to attend and provide recommendations in accordance with SW/TINSW/EPA/Downer guidelines. Works Jocked on active train lines with public transport commuters with impacts to current traffic conditions including a mic of presentions, cyclicia, local paring and road traffic. Work compounds situated near sensitive receives including commercial, eleutational, industrial, residential and passive rectreation areas.		1931-1919 Type 11 Buildings would be	Separa
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construction is to be removed/cleared. Mestimm risk of unexpected contamination in finds; Low risk of plant/equipment spills; Low risk of settlementation runoff. Works to ceste immination by the properties or contamination is encountered with site age. Cocupational hygienist to attend and provide recommendations in accordance most with Schliff Way/PE/Downerguidelines. Works accisted on active train lines with public transport commuters with impacts to public transport commuters with impacts to present traffic conditions including a mix of presenting the counterpart or current traffic conditions including a mix of presenting work compounds situated near sentitive conreceives including commercial; educations. Work compounds situated near sentitive conreceives including commercial; educations. Committed residential and place of worship.		debris on gublic roads generated by	Location and proximity of nearest sensitive
Medium riak of unespected contamination indicate the contamination unoff. Norts to cease immediately if suspected contamination flow that the contamination is encountered with area of contamination definested with signage; Occupational hygienist to attend and provide recommendations in accordance with SIATHRANEPA/Downer guidelines. Works included on active train lines with public transport communers with maject to current traffic roaditions including a mic of peciatrians, cyclists, local paring and road traffic. Work compounds situated mear sensitive commerceivers including contrinectal, educations, commerceivers including contrinectal, educations, commerceivers including contrinectal, educations, commindustrial, residential and piece of workhip. NOT		construction is to be removed/cleared.	receivers;
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Occupational hyperiats to attend and provide recommendations in accordance with SNATHSWNEPA/Downer guidelines. Works located on active train lines with public transport commuters with impacts to current traffic conditions including a mix of pecestrians, cyclists, local paring and road track from the communes situated near sensitive receivers including commercial, educational, industrial, residential and place of worship, active and passive recreation areas.		contamination delineated with signage;	Emergency and incident response includes incid
prode recommendations in accordance prode recommendations in accordance with SW/TINSW/EPA/Downer gaidelines. Works located on active train lines with poets to outlie transport commuters with impacts to current traffic conditions including a mic of pecestisms, cyclists, local paring and road traffic. Work compounds situated near sensitive receives including commercial, educational, industrial, residential and place of worship, active and passive rectreation areas.		Occupational hygienist to attend and	notification to be undertaken in accordance with
with Stay/ITMSW/Stay/Downer guidelines. Works located on active train lines with boot current traffic committees with impacts to current traffic conditions including a mix of pecestrians, registi, local paring and road traffic. Work compounds situated near sensitive eceives including commercial, educational, industrial, residential and place of worthin, active and passive recreation areas.		provide recommendations in accordance	requirements of CoA A36 and A37 and the Sydn
and Works located on active train lines with public transport commuters with injects to current traffic conditions including a mic of precestrans, cyclists, local paring and road traffic. Work compounds situated near sensitive receivers including commercial, educational, industrial, residential and place of workhip, active and passive recreation aleas.		with SN/TNSW/EPA/Downer guidelines.	Incident and Non-compliance Reporting Procedi
polit publicit transport commuters with impacts to current traffic conditions including a mix of pecestrians, cyclists, local paring and road traffic. Work compounds situated mear sensitive receives including commercial, educational, industrial, residential and piece of worship, active and passive recreation areas.	Traffic and	Works located on active train lines with	17-00000096.
current traffic conditions including a mix of pecestrians, rects, local paring and road traffic. Work compounds situated near senditive ecevives including commercial, reductional, industrial, realidential and place of worship, active and passive recreation areas.	Transport	public transport commuters with impacts to	Pre-start attendance register, and toolbox atten-
pecestrans, cyclists, local paring and road traffic. Work compounds situated near sensitive receivers including commercial, educational, industrial, residential and place of workip, active and passive recreation areas.		current traffic conditions including a mix of	register are signed by all site personnel.
traffic. Work compounds situated near sensitive receives including commercial, educational, industrial, residential and piece of worship, active and passive recreation areas.		pecestrians, cyclists, local paring and road	No works outside the approved marked bounds
Work compounds stuated near sensitive receivers including commercial, educational, industrial, residential and place of worship, active and passive recreation areas.		traffic.	Ensure all service identification tasks have been
	Noise	Work compounds situated near sensitive	completed and service locations are marked out
worship,		receivers including commercial, educational,	commencing wark.
		industrial, residential and place of worship,	Noise and Vibration - CoA E18-34, SPIR REMM: N
Control/Mitgation		active and passive recreation areas.	NVC16, Section 9 of CEMF
	\$26000000000000000000000000000000000000	Characteristics and the contraction of the contract	Control/Mitigation

	moderate significance.	All site pers
٨,	Monitor access points to public roads; debris on public roads generated by construction is to be removed/cleared.	completed Location receive
nation	Medium risk of unexpected contamination finds; Low risk of plant/equipment spills; Low risk of sedimentation nundf; Works to cease immediately if suspected contamination is encountered with area of contamination is encountered with area of	Vegeta Vegeta Access Unexpe
	contamination delineated with signage; Occupational hygienis to attend and provide recommendations in accordance with Sto/THSSW/EA/Downer guidelines.	Emergency notification requirement incident an
P +	Works located on active train lines with public transport commuters with impacts to current traffic conditions including a mix of pecestrians, cyclists, local paring and road traffic.	Pre-start at register are No works o Ensure all s
	Work compounds situated near sensitive receivers including commercial, educational, industrial, residential and place of worship, active and passive recreation areas.	completed commencin Noise and V NVC16, Sec

All incidents would be reported in accordance with SM
Environmental Incident Classification and Reporting Procedure
(\$M1-17-00000096).

	Ibration Strat	ion Strategy (SM ES-51-210) fign 3.5 of CEMP and Section 5 of NVAVI ero
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4	SS/ EA/ PE	N	Sures as Resp.	я	62 59	₹ 6	N # 1	₹ %	
costang and unboung or maternary prevents to occur as far as possible away from sensitive receivers. Plant used intermittently to be throttled down or shut	down. As required by ODHW approval, attended noise monitoring to be undertaken at the most impacted receiver location. Ongolng noise and / or vibration monitoring not limiting to ODHW would be undertaking during construction at sensitive receivers during critical periods. (Ig times when noise entisions are expected to be at their highmest) to defirffy and systic im managing high risk noise events.	Acether in 1999, and 1999,	Soil and Water ESCP as per section 5.1.4 of SWIMP and Mitigation Measures as per: - CAGE 8, E9, E38-E41 - SPIREMAN SCT - SCB, FHW1 - FHW10, HR54 - Section 15 of CRAF - Section 15 of CRAF - All themicals and hazardous liquids, would be stored - REAL ALL THE STORES - REAL	away from drainage lines in a bunded and impervious enclosure. Solil kits to be located tlose to active work areas and near chemical and hazardous liquid storage areas as indicated in the ECM.	All staff would be made aware of the location of the spill kits. kits. Vehiclet and machinery would be properly maintained and routinely inspected to minimise the risk of fuely oil leaks.	In the event on a position inductin, works would cease in the immediate vicinity and Site Supervisor would immediately notify the Downer Project Manager who would notify MER/ER and SM Project Director.	All spot to be removed from site would be classified according to the NSW water. Classification Guidelines and disposed as an appropriate landfil. Material to be reused or stockpiled on site permanently is to be tested for cochamination per the NRPM (ASC criteria for commertal) finductival land use.	Immediately report incidents where water has been discharged and not wholly contained within the project boundary. Applicable and Beause Brocedure.	(SM ES-PW-309) required followed by approval from Environmental Advisor for any reuse or discharge of warter
	dds: carried a one-	sidered rior to 000115 pe with tecol. CEMP SS/	P P P P P P P P P P P P P P P P P P P	All	я	Resp	N III	ង	W
Section of Sundays or public holidays	As per COAEZA with noise generating works during standard working hours to be competed during the following periods: Man Fr. 08h00 to 18h00 Sat: 08h00 to 18h00 Sat: 08h00 to 18h00 out in blocks that do not exceed three hours each, with a one-hour respite period in between. Out of Hours Warks Assessment Procedure (SM ES-PW-310) to be Out of Hours Warks Assessment Procedure (SM ES-PW-310) to be	applied, all works outside standard working hours are considered to theirs Works (ODMV) and require approval prior to commencing. The ODMV application from \$AV-17-000001518 (ericlosed in Appendix Do (WOMP) to be used in accordance with \$AM-17-00005356 CIN, & Southwest out of hours work protocol. MINGATION MASSIGE TO, & Southwest out of hours work protocol. Militagation measures are based on Coa, REMM, CEMF and CEMP and sub-plans (awaiting approval). [Raspa] [Raspa]	completes the project induction, including: roceivers: Heritage present on site. Vegetation to be removed or protected: Access and egrees points: Completes points: Increpared linds procedure for sensitive areas not limiting to contamination, heritage, flora & flaura.	Emergency and incident response includes incident indifficulty of the undertaken in accordance with the requirements of CoA A36 and A37 and the Sydney Metro incident and Non-compliance Reporting Procedure SM-17-20000096.	Pre-start attendance register, and toolbox attendance register are sighted by all its personnel. No works outside the approved marked boundary. Ensure all service identification tasks have been completed and service locations are marked out prior to recompleted and service locations are marked out prior to	Noise and Vibration - Coa E18-34, SPIR REMIM: NVC1 — NVC16, Section 9 of CEMF Control/Militarian	Stationary noise sources such as generators will be enclosed or shelded where greatlished. No swearing or unnecessary shouting or loud stereos/radios on site. No dropping of materials from height, throwing of metal stems and stems of doors.	Simultaneous operation of noisy plant within discernible same of a sensitive receiver is to be avoided. The part refer flow, perking and losaling/unloading areas to minimise seavering movement within the site.	Mon-tonal reversing beepers (or an equivalent and mechanism) must be fitted and used on all construction whiches, and monthly must have been all construction whiches, and monthly must have been all constructions.

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SMSU6: ENVIRONMENTAL CONTROL MAP - HURLSTONE PARK STATION

Any contaminated material stockpiles (asbestos) will be	S :	All personnel working
covered on-site and short-term material stockpiles (>> days not in use) with potential to generate dust will be wested down or covered to prevent flustive dust	er er	heritage elements in to be clearly communicat Multiple items of herit
emissions or run-off during wet weather. Long-term stockpiles (>30 days) will be stabilised and /or covered in accordance with "Blue Book" recurrenests		this ECM, Section 5.2 B Moveable Heritage Str planform buildings, box
A dewatering permit is to be in place for all dewatering activities, including the dewatering of any groundwater.	EA/ PE/ SS	overbridges. All these minimise the risk of un
Air Quality - Appendix E. Environmental Procedures CEMP CoA E2, SPIR REMM AQ1	1	heritage are suspected Manager and Environn
Control/Mitigation	Resp	Sydney Metro Unexpe
Cover stockpiles when not in use to prevent wind	/55/	SM-18-00105232 -A
Cover loads on trucks transporting material to and from	4	non-aboriginal heritago
the construction site and securely lix taligates of road transport trucks prior to loading and immediately after		The site to be delineat and heritage advisor w
unibading.		consulted for advise.
Prevent mud and dirt being tracked onto sealed road surfaces. If mud or dirt has been tracked out of site,		Flora & Pauna - Appen CoA - E3-E6, REMM SF
sweep/remove this material.		Control/Mitigation
Apply water (with an onsite water tart) on to dampen		Unless stated on the E
exposed surfaces (e.g., unpayed roads, stockpiles, hardstand areas and other exposed surfaces).		on site as per section
Plant and machinery not to be left idling		Any vegetation not app
All plant and machinery would be fitted with emission		follow the Flow Chart
control devices complying with relevant Australian		Appendix E (Procedure
Machinery and plant that will be kept on site will be		endangered and threa
serviced as per manufactures specifications.		would be undertaken
Vehicle movements would be limited to designed entries		clearing occurring. The
and exits, work areas, haufage routes and parking areas.		subsequent relocation
Dust generation would be monitored visually, and where required dust control measures such as water areasing		biodiversity assessmen
would be implemented to control the generation of dust.		REMM B3 - Areas of bi
Access points would be inspected to determine whether		project area would be
sediment is being transferred to the surrounding road naturous life amount and month to make the property.		disturbance.
removed from roads to minimise dust generation.		REMM 84 - Impacts to
Stabilisation of any exposed surfaces as soon as		(Downy Wattle Turper
practicable. Daily inspections and regular surveillance would be	SI	forest on shale and Bro
undertaken to identify any vehicles, plant or equipment		would be avoided. The
that is causing visible emissions. If any defective vehicles, plants or equipment are identified operation of this		and avoided:
machinery would cease and service/maintenance would		REMM B5 - Equipment
be undertaken.		restricted to identified
Stockpilles will be maintained and contained		cleared land.
appropriately, which could include covering or regular watering to minimise dust.		the clearing of native v
		fauna habitat to avoid
Heritage Front Flore 17		REMM B7 - Priority we
SPIR REMM:		accordance with the B
 Section 10 of CEMF Cop service and _ ALS MAIN _ NAME 		national environmenta managed in accordance
STIM MEINING MIT HOUS, INHUT - MARKS	Door	Significance Weed Mar

	VI.	-	Sec.	V1	71.	AL.		Ω.	-	70.00		01		W1			W 01
REMM NU22 - Trees to be estained would be protected by establishing Tree Protection Zone prior to the commencement of construction including any tree pruning to be undertaken guided by a tree report prepared by a qualified arborits and upon approval from Sydney Metro.	immediately report any damage to 1) threatened species 2) retained trees or trees that have been trimmed or removed without approval, and all work to stop immediately. Call a Project Ecological Approval.	If animals are encountered, leave them alone and contact Site Supervisor and Environmental Advisor.	Protection 'no go zone' to be place for any threatened species	Modify the route of trenching to avoid any damage to trees and tree roots.	All stockhies must be located outside of Tree Protection/Drip Zone	soil with weed material or removed prior to any movement off site. To reduce the spread of weeds no soil in to be transported into the works areas, Ensure	that all machinesy, vehicles and equipment are free of weed material before entering and exiting the works areas.	Waste and Spoil-Appendix E. Environmental Procedures CEI CoA — E73 to E76	Control/Mitigation	Waste disposal locations and applicable EPLs are to be identified prior to disposal and are subject to Drowner approval prior to removal from site.—HoLD POINT. All recyclable waste would be recycled where possible. Material or spoilthat has the potential to contain.	aspestos or other contaminants will be tested and will be managed by an appropriately licensed contractor as required.	All wastes will be removed from site at the completion of the project and will be tracked.	In accordance with CoA £40, the Unexpected Contaminated Land Pocedure and Asbestos Finds Procedure (refer Appendix B of CENP) to be followed in the event of an unexpected find.	Any construction waste generated will be stored in bins as appropriate.	Cover stockpies with geolab or like material and secure the base to avoid erosion and sediment controls. CoA ET3 Any tems or infrastructure that are coaching and the department of the departme	plan (Condition CB, More: reuse of items may include signal boxes, indicators, ballast or other rail infrastructure. These terms should be offered to Sydney. Turing or reuse.	CoA E74 - The importation of waste and the storage, treatment, processing, processing, processing or disposal of such waste must comply with the Protection of the Environment Operations Act 1997, under the Protection of the Environment Operations (Waste) Regulation 2014,
MA.					9	Resp	SE /	3	£3		SS/				SI	43	
resonnell working on vite are to be aware of all the age elements in the work area and "No go" areas to senty communicated. The element of the properties of pile items of heritage significance to consider (refer TOM, Sentin of 2 and intensee May and Table a 10 in able Heritage Strategy of HMP includes (stands.)	orm buildings, booking offices, footbridge, originges. All these needs to be vidibly delineated to make the risk of undertaking disturbance. all work framedistally when items, areas of potential are are suspected and notify Downer Polset.	ager and Environment Heritage Officer.	18-00105232] – Appendix D of HMP will be emented in case of any unexpected aboriginal or	aboriginal heritage item is found on site; ite to be delineated with signage as 'no' go' zone,	ulted for advice.	- E3-E6, REMIM SPIR REMIM, CEMF Section 11	ss stated on the ECM or prior approved by onmental Advisor, no vegetation is to be removed to as per section 3.13 Hold Points of CEMP	regetation not approved for removal or trimming to withe Flow Chart on clearing procedure under	M B2 - Pre-clearing surveys and inspections for	ngered and threatened flora and fauna species of be undertaken by qualified ecologists prior to any fing occurring. The surveys and inspections, and any equent refocation of species, would be undertaken confance with the measures provided in the	versity assessment report. M B3 - Areas of biodiversity value outside the cct area would be marked on plans, and fenced or	nosted where practicable, to prevent unnecessary rbance.	M 84 - impacts to Native and <u>Non Native</u> Vegetation my Wattle Turpentine - Grey Ioohasis, open lorest, wale, Degeded Turpentine - Grey Ironbark open state and Broadsleaved Ironbark - Grey Box)	d be avoided. The locations of these species and numbes would be marked on plans, fenced on site, mandain.	worder. M B5 - Equipment storage and stockpling would be to the fortilled compound sites and already ed land.	M B6 - A trained ecologist would be present during learing of native vegetation or removal of potential: a habitst to avoid impacts on resident fanna and to ge habitat resources as far as is particiable.	M. B Prority weeks would be managed in ranner with the Bosecury Act 2015. Weeks of hals environmental significance would be aged in accordance with the Weeds of National Iranner Weed Management Guide.

	SS SS	Reso	ı		1	s All	П	Georg	T IV	WHS	7.55	R			1	Resp	E F	13:5		₩ F	
place that can lawfully accept such waste. CAG E70. Maste most be classified in accordance with the EPA's Vaste Cassification Guidelines, with appropriate records and disposal dockets retained for audil purposes. REMM WM2-2 A recycling target of at least 90 per cent. would be adopted. REMM WM3-3 reported.	with the spoil management hierarchy. REMM WM4 - Target 100 per cent reuse of reusable spoil.	Traffic COA (46 – ES3, ES4 (Visual amenity, Lighting) • Stoff & EMM: Section B of CEMF Controll, Mithelian	Construction of the Constr	from Traffic Management Plan. Ostain Road Organisation Lineage as when required	Implement Traffic Controls as per conditions of approval	of TCP by the relevant council. All vehicles to enter rail corridor from designated access points on site.	Plant and machinery not to be left idling. Pedestran or cyclist access will be maintained in public apaces or redirected as appropriate.	Chemical, Fuel Storage and Use	No chemicals or first resulted to be stoned onsite		registered in SDS and SDS kept on site.	Place spill kits in compound and portable spill kits in vehicles	Refuelling to occur in designated/approved area only with spill tray, absorbent pads, socks placed. All plant and machinese to be daily charlest insections.	All plantand machinery to be delify thecked [pre-starts] to encore a leaking oil finel or other liquids	Imported Material	Control/Mitigation	All imported material will be sourced from a licensest supplier with onsite storage to only occur with controls in place.	No Go Zone	Control/Mitigation	All construction activities will be restricted to the project boundary. Any activity outside the project boundary must be approved prior by SM /ER	

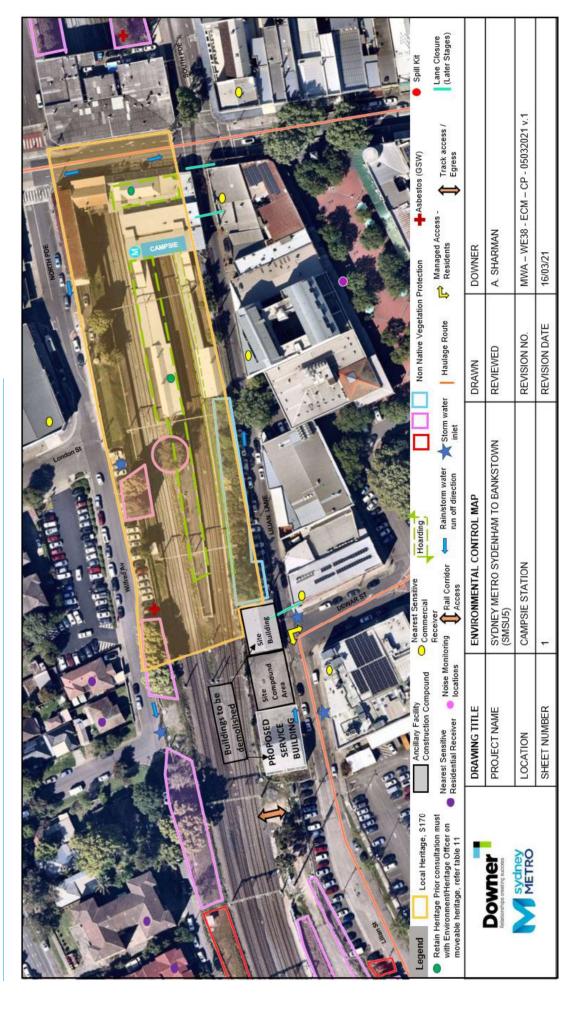
olume 1 June 2018 Jackett Market	2018	Jume 1 June 2018
	2018	el June 2018 Morks
	2018	Morks
	2018	Morks

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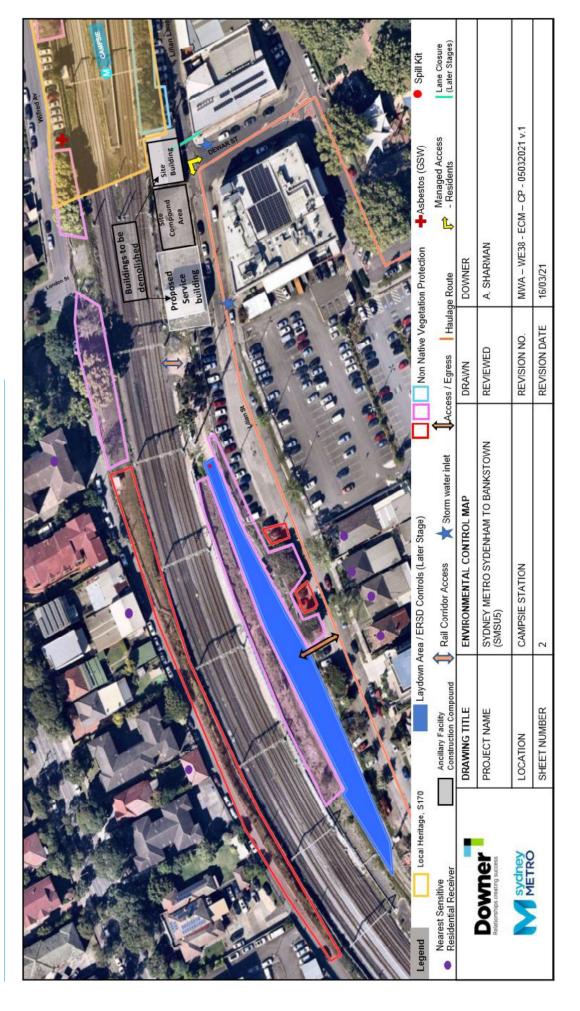
SMSU6: ENVIRONMENTAL CONTROL MAP - HURLSTONE PARK STATION

Entry/Exit		97	Heritage - Booking Office & Platforms 1&2	Location/Feature	Bus stops – overbridge	Kerbside uses	Parking - retained	Parking - new	Bike Parking existing & new
_	wided. Lifts	freplaced. Stairs	50	100		440	Ę		3
The existing entrance would be retained and upgraded.	Two new afts would be provided.	Existing stairs removed and replaced.	The existing heritage listed overhead booking office and heritage buildings on platform 1 and 2 retained and repurposed.	Station Area	Existing bus stops on the overbridge retained	New kerbside facilities would be located on Floss St, on the eastern side on the overbridge adjacent to the station.	Existing accessible parking spaces on Floss ST & Duntzoon St on the northern side of the rail corridor would be retained.	New accessible parking would be provided on Duntroon St on the southern side of the rall corridor.	Existing bike parking on Criman St outside The station entrance would be retained















DRAWING TITLE	ENVIRONMENTAL CONTROL MAP	DRAWN	DOWNER
PROJECT NAME	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU5)	REVIEWED	A. SHARMAN
LOCATION	CAMPSIE STATION	REVISION NO.	MWA - WE38 - ECM - CP - 05032021 v.0
SHEET NUMBER	3	REVISION DATE	TBA

Downer Relationships creating success



Table 11: Cam	psie Station mo	Table 11: Campsie Station moveable heritage							
Registration Number	Category	Description of object	Location within station	Notes/ History	Sydney Trains Significance/ Condition (2019)	Artefact Significance/ Condition (2020)	Likely Impacts	Recommended Action	Image
No item code. Listed on the SHI.1	Operational	Timber trays	Platform building	Timber box located in closed cistern room. Appears to have been part of the early operations of the station	Not assessed by Sydney Trains	Moderate / Good	Station platform building rooms to be heavily modified.	Temporarily remove during works, restore to platform building storage if possible; relocate to overhead booking office if no platform storage available.	
No item code. Listed on the SHI.2	Furnishing	Fitted timber waiting room benches	Platform building	Timber fitted seating within waiting room of station platform building (two seats)	Not assessed by Sydney Trains	Moderate/ Good	Waiting room to be converte d to Sydney Metro equipme nt room	Retain at station to provide public seating	41
	I	DRAWING TITLE	e de la contra	ENVIRONMENTAL CONTROL MAP	MAP	DRAWN	DOWNER	ER	

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Downer Relationships creating success	PROJE
sydney	LOCATI
	SHEET

DRAWING IIILE	ENVIRONMENTAL CONTROL MAP	DIKAWN	DOWNER
PROJECT NAME	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU5)	REVIEWED	A. SHARMAN
LOCATION	CAMPSIE STATION	REVISION NO.	MWA - WE38 - ECM - CP - 05032021 v.0
SHEET NUMBER	4	REVISION DATE TBA	TBA

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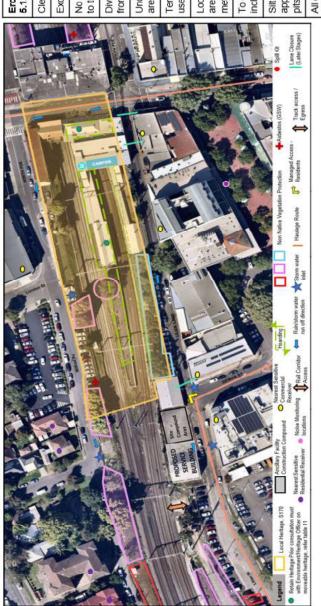
Page 44 of 113



			 _
Image		A REGULAR	
Recommended Action	Conserve in situ	Not considered significant, do not retain.	H.
Likely Impacts	External wall not to be modified	Bathroo m to be converte d into Sydney Metro equipme nt room	DOWNER
Artefact Significance/ Condition (2020)	Moderate / Good	Little / Good	DRAWN
Sydney Trains Significance/ Condition (2019)	Not assessed by Sydney Trains	Not assessed by Sydney Trains	IAP
Notes/ History	Timber box located along the exterior wall of the platform 1 building.	Faded poster from recent station upgrade works. Depicts old and new entrances.	ENVIRONMENTAL CONTROL MAP
Location within station	Platform 1 Building, external wall	Platform 2 building male bathroom	- NAV
Description of object	Timber box adjoined to exterior wall	Campsie station upgrade poster	DRAWING TITLE
Category	Timber box	Art and Prints	
Registration Number	No item code	No item code	

LN	A. SHARMAN	MWA - WE38 - ECM - CP - 05032021 v.0	
DOWNER	A. SHA	MWA-	TBA
NIMANO	REVIEWED	REVISION NO.	REVISION DATE TBA
ENVIRONMENTAL CONTROL MAP	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU5)	CAMPSIE STATION	5
DRAWING IIILE	PROJECT NAME	LOCATION	SHEET NUMBER





Erosion Sediment Control Plan - Hoardings, Surveying, Pot Holing (section 5.1.4 of CEMP)

Clearly delineate access points

Exclusion zones would be designated on construction sites to limit disturbance

No stockpiles of materials or storage of fuels or chemicals would be located adjacent to the existing culverts

Diversion drains/bunds are to be installed on the high side of stockpiles if run—off from upslope lands could impact on the stockpile Undertake progressive stabilisation of ground surfaces as quickly as possible as they are completed rather than at the end of the works program Temporary ground covers such as hydraulic soil stabilisers or geotextile fabric will be used as much as possible to stabilise batters, stockpiles and large surface areas

Locations of nearest existing drainage channels and stormwater inlets to the works are displayed on the ECM (ESCP) map (nearest storm water pits are not within 80 meters of works). To cover the scope of works such as surveying and pot holing install localised controls including sediment bags, silt socks, spill kit and geofab to avoid spillage of sediments.

appropriate and where they will not cause or exacerbate flooding (nearest storm water Silt socks and or coir logs will be installed around stormwater inlet pits where pits are not within 80 meters of works)

All erosion and sediment controls will be inspected by the Environmental Manager (or delegate) at least weekly, before forecast rainfall exceeding 20 mm in 24 hours, after rainfall exceeding 20 mm in 24 hours and before a site closure of two days or more. Maintenance will be carried out as required prior to the next forecast rainfall event Site supervisors will undertake daily erosion and sediment control checks and record any issues within site diaries. Site supervisors will ensure controls are maintained and in working order

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Downe eletionships creating success	Sydr

ENTAL CONTROL MAP DRAWN DOWNER trois, ESCP)	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU5) REVIEWED A. SHARMAN	TATION TATION NO. MWA – WE38 - ECM – CP - 05032021 v.0	REVISION DATE TBA
ENVIRONMENTAL CONTROL MAP (ERSD Controls, ESCP)	SYDNEY METRO SYDENHAM TO BANKS	CAMPSIE STATION	9
DRAWING TITLE	PROJECT NAME	LOCATION	SHEET NUMBER

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SMSU6: ENVIRONMENTAL CONTROL MAP — CAMPSIE STATION

200000000000000000000000000000000000000			
GENERAL		Feb20-Mar20; con	Feb20-Mar20; continual update of this ECM will be undertaken to
Project	Southwest Metro Station Upgrade Works Package 5	suit any specific re mitigation measure	suit any specific requirements for each stages of works, with all mitigation measures approved by SM NER/ER prior to possession.
ECM	This ECM is a supplementary document to the SMSU6 CEMP and prepared in accordance with CoA SSI 8256, SM City &	KEY EWVIRONMENTAL RISKS Heritage Campsi	TALRISKS Campsie is item of local significance listed
	Southwest Sydenham to Bankstown Environmental Impact Statement, SPIR and SR.		on Canterbury LEP 2012 (#140) and AailCorp s170 heritage register fishing #4801101. All works need to be contained within the
Activity	Station Upgrade to Metro Standards		approved work abundary, modern direct, and visual impact to items of heritage
Site	Campsie Station		significance that must be delineated, and all
Planning Approval SSI 8256	551 8256		works to proceed in accordance with
Dotument	0		Moveable Heritage Strategy (Section 5.2.6 of HMP, Table 11) and Heritage Salvage
Site Awareness	The team will be trained on this ECM, general environmental issues, location of sensitive areas and ERSO controls:		Register (N/A for Construction as per Section 5.2.7 of HMP and Unexpected Finds Procedure.
	Works will be subject to inspections and appread by TMSW NRRER and Downer Environmental Team.	Air quaity	Monitor access points to public roads; debris on public roads generated by construction is to be removed/cleared.
	This document will be displayed on site notice board at all times.	Contamination	Medium risk of unexpected contamination finds: Low risk of plant/equipment spills:

	Nome.	Marine has
III	Rame	Competer
SM/THVSW	Tim Solomon	0400034207
Manager (NER)		
Downer Project Director	Kristo Bugarija	0428 161 912
Downer Project Engineer	Peter D'Costa	0478 074 294
Downer Site Supervisor	Nick De Palma	0418 555 130
Downer Environment Sustainability Manager	Gareth O'Brien	0428 194 445
Downer Environment Advisor	Abe Sharman	0420 989 193
Community	Julie Henderson	0415 161 810
Heritage Advisor	Sandra Wallace	02 9518 8411 (Artefact Heritage)
SM Project Info Line	1800 171 386 1800 612 173 (West)	
TfNSW 24-hr Complaint Line	1800.775.465	
EPA/OEH Pollution Hottine	131 555	
Emergency	000	
WIRES	1300 094 73	
ACTIVITY DETAIL		
Jaconstino		

Heritage	Campaie is feen of local significance listed on carteebury LE 2012 fittid) and SaliCorp s370 heritage register listing at 80:101. More approved work boundary. Moderate direct and visual impact to items of heritage significance that must be delineated, and all Moveable Heritage Strategy (Section 5.26 of HMP, Table 11) and Heritage Salvage of HMP, Table 11) and Heritage Salvage Section 5.2.2 of HMP, Table 11) and Heritage Salvage Section 5.2.2 of HMP and Unexpected Fields
Air quality	Maritor access points to public roads, debris on public roads generated by construction is to be removed/cleared.
Contamination	Medium risk of unexpected contamnation finds, Low risk of plant/equipment splin; Low risk of sedimentation runoff; Low risk of sedimentation runoff; Work to cease immediately if suspected contamination is encounteed with area of contamination delineated with signage; Occupational hygienist to attend and provide reportmentations in accordance with say/FINSSW/FEA/Downer guidelines;
Traffic and Transport	Worss located on active train lines with public transport commuters with impacts to current traffic conditions including a mix of perdestrians, cyclists, local paring and road traffic.
Noise	Work compounds situated near sensitive receivers including commercial, ediuational, industrial, residential and place of worship, active and passive recreation areas.

Measures as

	INCIDENT RESPONSE AND REPORTING - Appendix F of CEMP
All incidents would I Environmental Incid (SM-17-00000096).	All Incidents would be reported in accordance with SM Environmental Incident Classification and Reporting Procedure (SM-17-00000095).
WORKING HO	WORKING HOURS - City and Southwest Construction Noise and Vibration Stategy (SM ES-ST-210)
 Section 3.6 CoA 519 - E 	Section 3.6 of CEMP and Section 5 of NVMP
Man - Fri:	07H00 to 18H00
No works on S	Na works on Sundays or public holidays
As per CoAE. working hours Mon – Fri: Sat-	As per COAE24 high noise generating works cluring standard working hours to be completed during the following periods: Mon-Fir: 08/8/00 ts 138/00 cs. 281-081-081-031-091-091-091-091-091-091-091-091-091-09

S S

Also house greature activities have receivers should be carried out in blocks that do not exceed three five sorts, with a one-thour resplice period in between. Out of Hours Works Assessment Proceedure (5M is-PW-330) to be	a one-	Ongoing poise and it or whatakin medicing got limiting to OOHW would be undertaking daring construction at actualitive receivers during critical periods (ig times when noise emissions are expected to be at their highest) to definity and assist in managing high risk noise events.
applied, all works outside standard working frours are considered. Out of Hours Works (DOHW) and require approval prior to commercing. The DOHW application form \$M-17-D0000115.	rior to 200115	Residential grade mufflers are to be fitted on all mobile plant used on Sydney Metro construction projects. Regular inspection and maintenance of all plant and
	ce with	machinery
SM-17-000b596 City & Southwest out of hours work protocol MITIGATION MEASURES	locol.	identifies defective stending equipment on the items of plant by regular compilance checks on the notice
writigation measures are based on COA, REMIN, LEWIS and LEMP	CEMP.	emissions of all plant and machinery used for the Project
General		Would halter than predicted.
Control/Mitigation	Resp	Air brake silencers are correctly installed and fully
All site personnel (including sub-contractors) to have completed the project induction, including: Location and proximity of nearest sensitive	SS/ EA/ PE/	operational for any heavy vehicle. Soil and Water ESCP as per section 5.1.4 of SWMP and Mitigation Measure.
retenens; Heritage present on site; Vegetation to be removed or protected; Access and erress unints:		per:
 Unexpected finds procedure for sensitive aleas not limiting to contamination, heritage. flora & launa. 		Control/Mitigation All themicals and hazardous listeds would be stored
Emergency and Incident response includes incident notification to be undertaken in accordance with the	All	away from drainage lines in a bunded and impervious enclosure.
requirements of CoA A36 and A37 and the Sydney Metro Incident and Non-compliance Réporting Procedure SM- 17-00000096.		Spill kits to be located close to active work areas and near chemical and hazardous liquid storage areas as indicated in the ECM.
Pre-start attendance register, and toolbox attendance register are signed by all site personnel.	я	All staff would be made aware of the location of the spill kits.
No works outside the approved marked boundary.		Vehicles and machinery would be properly maintained
		and routinely inspected to minimise the risk of fuel/oil least.
commencing work. Noise and Vibration - CoA E18-34, SPIR REMM: WVC1 —		In the event of a pollution incident, works would cease in the immediate wornly and Site Supervisor would
NVC16, Section 9 of CEMF Control/Mitigation	Resp	immediately notify the Downer Project Manager who would notify NER/ER and SM Project Director.
Stationary noise sources such as generators will be	S	All spoil to be removed from site would be classified
enclosed or shielded where practicable. No swearing or unnecessary shouting or loud	All	according to the NSW Waste Classification Guidelines and disposed at an appropriate landfill. Material to be
stereos/radios on site. No dropping of materials from height, throwing of metal		reused or stockpiled on site permanently is to be tested for contamination per the NEPM (ASC) criteria for commercial/industrial land use.
Simultaneous operation of noisy plant within discernible		Immediately report incidents where water has been
Plan traffic flow, parking and loading/ unloading areas to	SI	distributes and incremental section of the project
minimise reversing movements within the site.	VI	Application as per Water Discharge and Reuse Procedure (SM ES-2W-309) regulard followed by approprial from
mechanism; must be fitted and used on all construction vehicles and mobile plant regularly used on site and for	ŧ	Environmental Advisor for any reuse or discharge of water. And contaminated mentacial environmental features.
any but or nous work. Loading and unboding of materials/deliveries to occur as: far as possible away from sensitive receivers.	NC.	covered on site and short-term material stockpiles (>5 days not in use) with potential to generate dust will be
Plant used intermittently to be throttled down or shut down.	09	wetted down or covered to prevent fugitive dust emissions or run-off during wet weather. Long-term
As required by OOHW approval, attended noise	/ 55	stockpiles (>30 days) will be stabilised and /or covered in
monitoring to be undertaken at the most impacted	EA/	accordance with "Blue Book" requirements.

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SMSU6: ENVIRONMENTAL CONTROL MAP - CAMPSIE STATION

A dewatering permit is to be in place for all dewatering activities, including the dewatering of any groundwater. At Guslite - Appendix Deminorabili Procedures CEMP	EA/ PE/ SS	Stop all work immediately when heritage are suspected and not Manager and Ervironment Heri Swiften Metro Unwonested Heri
_	Bach	SM-18-00105232 - Appendix
hen not in use to prevent wind	125	non-aboriginal heritage item is The site to be delinered with a
erriston and refresh and refresh and from the construction site and securely fix taligates of road transport tucks prior to loading and immediately after transport trucks prior to loading and immediately after	#	In and tope demission with and heritage advisor will be into consulted for activities. Flora & Fauna - Appendix D: En Cod - Else Es REMM SPREREMIN
Prevent mud and dirt being tracked onto sealed road surfaces. If mud or dirt has been tracked out of site, sweep/remove this material.		Control/Mitigation Unless stated on the ECM or pri Environmental Advisor, no vege
Apply water (with an orisite water cart) on to dampen exposed surfaces (e.g., unpaved roads, stockpiles, hardstand areas and other exposed surfaces).		on site as per section 3.13 Hold Any vegetation not approved for follow the Flow Chart on clearin
Plant and machinery not to be left Idling. All plant and machinery would be fitted with emission rectord devices complying with relevant Australian Standards.		Appendix i (Procedure I Biodix REMM B2 - Pre-clearing surveys endangered and threatened flo would be undertaken by qualifi-
		clearing occurring. The surveys subsequent relocation of specie in accordance with the measure
arth earts, work areas, nautage routes and parking areas. Dust generation would be monitored visually, and where required, dust control measures such as water graphing would be implemented to control the generation of dust.		BENM B3 - Areas of biodiversity project area would be marked or signposted where practicable, to
Access points would be inspected to determine whether seament is being transfered to the surrounding toad network. If required, sediment would be promptly, removed from roads to minimize dust generation. Stabilisation of any exposed surfaces as soon as		disturbance. REMM B4 - Impacts to Native as (Downy Wattle Turpentine - Gre on shale, Degraded Turpentine forest on shale and Broad-leave
practicable.		would be avoided. The location
Objective modern and regular surveillance would be undertaken to identify a sive whiche, plant or equipment that is clusing visible emissions. It amy defective whiches, plants or equipment are identified, operation of this matchinety would <u>results</u> and service/maintenance would be undertaken.	a	communities would be marked and avoided. REMM B5 - Equipment storage restricted to identified compour cleared land. REMM B6 - A trained ecologist?
Stockpiles will be maintained and contained appropriately, which could include covering or regular watering to minimise dust.		the clearing of native vegetation fauna habitat to avoid impacts or salvage habitat resources as far
NAH1 - NAH23		REMAM B7 - Priority weeds woul accordance with the Bioscourty national environmental agrifica managed in accordance with the circultance Masson Management circultance Masson Amazon and Circultance Masson Amazon and Circultance Masson Amazon Amazon Circultance Masson Amazon Amazon Amazon Circultance Masson Amazon Amazon Amazon Circultance Masson Amazon Amazon Amazon Circultance Amazon Amazon Amazon Circultance Amazon Amazon Amazon Circultance Circu
2 3	All All	REMM LV12 - Trees to be retain by establishing Tree Protection commencement of construction
Multiple items of heritage significance to consider (refer the ECM_Section 5.2 Built Heritage Mgt and Table 1.1 in Moveable Heritage Strategy of HMP) includes platforms buildings. All these needs to be yiality delineated to minimise the risk of undertaking disturbance.		pruning to be undertaken guide prepared by a qualified arborist Sydney Metro. Immediately report any damage 2) retained trees or trees that h

eritage Officer.		If animals are encountered, leave them alone and contact Site Supervisor and Environmental Advisor.	₩ ₹
eritage Finds Procedure ix D of HIMP will be unexpected aboriginal or		Protection in go zone; to be place for any inreatened species. Modify the route of trenching to avoid any damage to	8 8
is found on site;		trees and tree roots.	-
n signage as no go zone, mmediately informed and		All stockpites must be located butside of Tree Protection/Drip Zone	8
Environmental Procedures CEMP	4P	Soil with weed material be removed prior to any movement oil site. To reduce the spread of weeds no	S
	Resp	soli in to be transported into the works areas, insure that all machinery, vehicles and equipment are free of	
prior approved by setation is to be removed	/ SS /	weed material before entering and exiting the works areas.	
old Points of CEMP for removal or trimming to	4 4	Vastes and Spoil - Appendix D. Environmental Procedures CEMP CoA - E73 to E76 REMM - WM1 to WM7	CEMP
diversity) of CEMP.		Control/Mitigation	Resp
eys and inspections for filling and latina species illind ecologists prior to any yes and inspections, and any ciers, would be undertaken tures provided an the	25	Waste disposal locations and applicable EPLs are to be whentifled print to disposal and are subject to Downer approval prior to removal from site.—HOLD POWIT. All resylable waste would be recyled where possible. Material or spoil that has the potential to contain assets to other containmant will be tested and will be managed by an aromanism in will be tested and will be managed by an aromanism in whether the state and will be a managed by an aromanism in removed contains.	1001
sty value outside the d on plans, and fenced or	SS / EA	required. All wastes will be removed from site at the completion of	S
t to business of the contract of		the project and will be tracked.	1
and Mon Mathe Vegetation Grey Ironbark open forest ne – Grey Ironbark open	.00	In accordance with Co.A.Edd, the Unexpected Combinationated Land Procedure and Asbestos Finds Procedure (refer Appendix B of CEMP) to be followed in the event of an unexpected find.	₹
wed fronbark – Grey Box) ons of these species and		Any construction waste generated will be stored in bins as appropriate.	S
ed on plans, fenced on site,		Cover stockpiles with geofab or like material and secure	1
ge and stockpiling would be ound sites and already	SI	the base its avoid edision and sediment controls. CoA E73 - Any Items or infrastructure that are subvagable must be identified in the relevant CEMP Sub-	1
st would be present during tion or removal of potential	Œ.	plan (condition Leg., roote: teuse or tents may include signal boxes, indicators, ballast or other rail infrastructure. These items should be offered to Sydney.	
is on resident rauna and to far as is practicable.		Trains or reuse. Cod. E24 - The immortation of waste and the storage.	7.73
ould be managed in rity Act 2015. Weeds of ficance would be the Weeds of National ent Guide.		over ET. The implementation waster all net assistance, treatment, processing, reprocessing or disposal of such waste must comply with the Protection of the Environment Operations Act 1999, under the Protection of the Environment Operations (Waste) Regulation 2014, and oxders or eventpoins make under the regulation.	
ained would be protected on Zone prior to the ion including any tree ided by a tree report ist and upon approval from		CoA F75 - Water must only be exported to a site licensed by the EPA for the stonage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order season under the Americans of the Environment Order season under the Removement	E
age to 1) threatened species t have been trimmed or nd all work to stop	SI	place that can lawfully accept such waste. Cod E76 - All waste must be classified in accordance with	73

appropriate records and disposal dockets retained for	sd for	
Bufft purposes. Spring of or leave by one page	18	N V
would be adopted.		
WM3 - Spoil would be r	Sance	
with the spoil management hierarchy.	1	
REMM WM4 - Target 100 per cent reuse of reusable spoil.		S E
Traffic • CoA (46 – E53, E54 (Visual amenity, Lighting) • Spilkallon • Serving of France		
	R	Resp
Manage traffic in accordance with mitigation measures from Traffic Management Plan.		SS./
Obtain Road Occupancy License as when required		Md
Implement Traffic Controls as per conditions of approval of TCP by the relevant council.	357	SS
All vehicles to enter rail corridor from designated access	4	All
points on site. Plant and machinery not to be left idling.	100	
Pedestrian or cyclist access will be maintained in public	public	
spaces or redirected as appropriate.	ě	
Chemical, ruel Storage and USE	a l	Tour.
Longital No chemicals or fuel required to be stored onsite.		V V
Any required chemicals on site must be verified and	8	WHS
registered in SDS and SDS kept on site.		/ 55
Place spill kits in compound and portable spill kits in	Y.	SS
Refuelling to occur in designated/approved area only	vino	
with spill tray, absorbent pads, socks placed		
plant and machinery to be	-starts)	
to ensure in leaking or , theil or other liquids. Imported Material	i.	
Contro/Mitigation	El .	Resp
All imported material will be sourced from a licensed supplier with onsite storage to only occur with controls in place.	G278	All
No Go Zone		-10
Contro/Mitigation	8	Resp
All construction activities will be restricted to the project		All
boundary. Any activity outside the project boundary must be approved prior by SM /ER	lary	
Overall Scope of Works as per Preferred Project Works Volume 1 June 2018	Works – SPIR	
	Location/Feature	aur
The existing station entrance at Beamish En- St retain and upgraded.	Entry/Exit	
ted platforms re-	Heritage -	
	Platforms	
d repurpose existing heritage	Heritage -	
Station Area Station Area 1 or	Buildings Incation/feature	2
at his stop pear the station	Rus Ston	
	Parking - retained	per
North Parade, Wilfred Avenue and South Parade		
Cal adds.		

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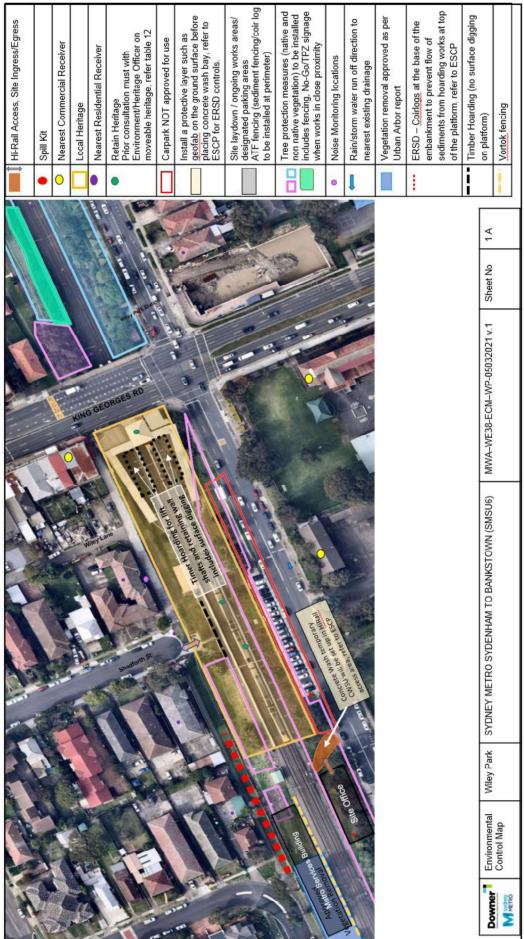
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SMSU6: ENVIRONMENTAL CONTROL MAP - CAMPSIE STATION

Provide new bike parking at North Decada	Bike Parking - new
Retain existing bike parking on Beamish St Bike Parking existing	Bike Parking - existing
Retain existing kiss and ride facility on the South Parade and provide new accessible park.	Kiss & Ride
Retain existing taxi stand on North Parade.	Taxi





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Table 12: Wiley Park Station moveable heritage

Image					
Recommended Action	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	2 A
Likely impacts	Overhead booking office converted to Sydney Metro use	Overhead booking office oonverted to Sydney Metro use	Overhead booking office converted to Sydney Metro use	Overhead booking office converted to Sydney Metro use	v.0 Sheet No
Artefact Significance / Condition (2020)	Little to Moderate / Good	Little / Good	Little / Good	Little / Good	MWA-WE38-ECM-WP-05032021 v.0
Sydney Trains Significance/ Condition (2019)	Little to Moderate / Good	Little / Good	Little / Good	Little / Good	MWA-WE38-E
Notes/ History	Standard 'off the shelf safe used throughout entire rail network for select work practices i.e. cash handling, safety and security of assets. Might contribute to the interpretation of historical ticketing practice in the railways, historical railway furnishings; historical methods of security in the railways etc.	Standard 'off the shelf safe used throughout entire rail network for select work practices i.e. cash handling, safety and security of assets. Might contribute to the interpretation of historical ticketing practice in the railways; historical railway furnishings; historical methods of security in the railways etc.	Timber stationary organiser located in the booking office.	Timber filing drawer located in the overhead booking office	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Location within station	Overhead Booking Office	Overhead Booking Office	Overhead Booking Office	Overhead Booking Office	DNEY METRO S
Description of object	Safe - yellow	Subfloor safe	Stationery Organiser	File drawer	Wiley Park SY
Category	Fumiture	Furniture	Furniture	Furniture	Environmental Control Map
Registration Number	WLY0001	WLY0002	WLY0003	WLY0004	Downer C

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Image	S.M. WILEY PARK	V			
Recommended Action	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Sheet No 2 B
Likely impacts	Overhead booking office converted to Sydney Metro use	Overhead booking office converted to Sydney Metro use	Overhead booking office converted to Sydney Metro use	Overhead Dooking office converted to Sydney Metro use	-05032021 v.0
Artefact Significance / Condition (2020)	Little to Moderate/ Good	High/ Good	Little/ Good	High / Good	MWA-WE38-ECM-WP-05032021 v.0
Sydney Trains Significance/ Condition (2019)	Little to Moderate/ Good	High/ Good	Pending/ Good	High / Good	
Notes/ History	Example of earlier railway timber furniture constructed by railways for railway use, specific ralationship to site and staff with 'SM Wiley Park' lettering.	Half fare ticket clippers were used to take a piece out of a cardboard to take to the condition and the centifier or historic ticketing practices in the railways prior to the introduction of automated ticketing systems now in use loday.	Appears to be non-significant item. Investigate object to confirm.	It was the establishment of a rail network in the mid18.50s that brought about a standard time measure for NSW. The need for accurate time to allow for the timetabling of trains and for passenger movements meant that a common, standard time had to be known at Wiley Park Station. This SRA modern design is representative of a continuation of this railway tradition and relationship of time and the railways.	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Location within station	Overhead Booking Office	Overhead Booking Office	Overhead Booking Office	Overhead Booking Office	SYDNEY METF
Description of object	Timber Step Ladder	Ticket Punch	Metal Box with batteries'	SRA Timatic Wall Clock	Wiley Park
Category	Furniture	Ticketing	Work processe s	Clock	Environmental Control Map
Registration Number	WLY0005	WLY0008	WLY0009	WLY0010	Downer C

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		a a			
Image		WILLY POINT. The working stress 120Ga 1988			
Recommended Action	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Retain and protect during works		
Likely impacts	Overhead booking office converted to Sydney Metro use	Overhead booking office converted to Sydney Metro use	Room to be conserved for waiting room use		Sheet No 2 C
Artefact Significance / Condition (2020)	Little to Moderate/ Good	Little/ Good	Moderate / Good		P-05032021 v.0
Sydney Trains Significance/ Condition (2019)	Little to Moderate/ Good	Not assessed by Sydney Trains	Not assessed by Sydney Trains		MWA-WE38-ECM-WP-05032021 v.0
Notes/ History	Assortment of potential significant and non-significant terms. To be reviewed at periodic audit. Assortment of significant and nonsignificant booking office objects to be reviewed and revised at periodic review.	Modern heritage interpretation panel located along concourse	Original timber benches		SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Location within station	Overhead Booking Office	Overhead Booking Office	Platform 2 Building waiting room		IEY METRO SYD
Description of object	Box of booking office objects	Freestanding heritage information panel	Timber benches	,	Wiley Park SYDN
Category	Work processe s	Signage	Fumiture		Environmental M Control Map
Registration Number	WLY0011	No item code. Listed on the SHI. ²	No item code. Listed on the SHI. ³		Downer Er

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Unit (CWSU), check with Environmental designated concrete washout locations or using a Concrete Waste Separation Manager on discharge for recycling of Concrete washout will be confined to concrete waste

Concrete plant and mobile crane access area, to mitigate ground washout (to be installed prior to disturbance in car park install a protective layer such as geofab before placing plant. Concrete pours, temporarily)



All erosion and sediment controls will be inspected by the Environmental Manager (or delegate) at least weekly, before forecast rainfall exceeding 20 mm in 24 hours, after rainfall exceeding 20 mm Locations of nearest existing drainage channels and stormwater inlets to the works are displayed Site supervisors will undertake daily erosion and sediment control checks and record any issues Silt socks and or coir logs will be installed around stormwater inlet pits where appropriate and in 24 hours and before a site closure of two days or more. Maintenance will be carried out as within site diaries. Site supervisors will ensure controls are maintained and in working order where they will not cause or exacerbate flooding required prior to the next forecast rainfall event on the ESCP map

MWA-WE38-ECM-WP-05032021 v.1 SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)

Sheet No

Hoarding – install sediment socks at the base during installation works

Storm water drain inlet, install geofab protection

Site laydown / ongoing works areas/ designated parking areas ATF fencing (sediment fencing/coir

log to be installed at perimeter)

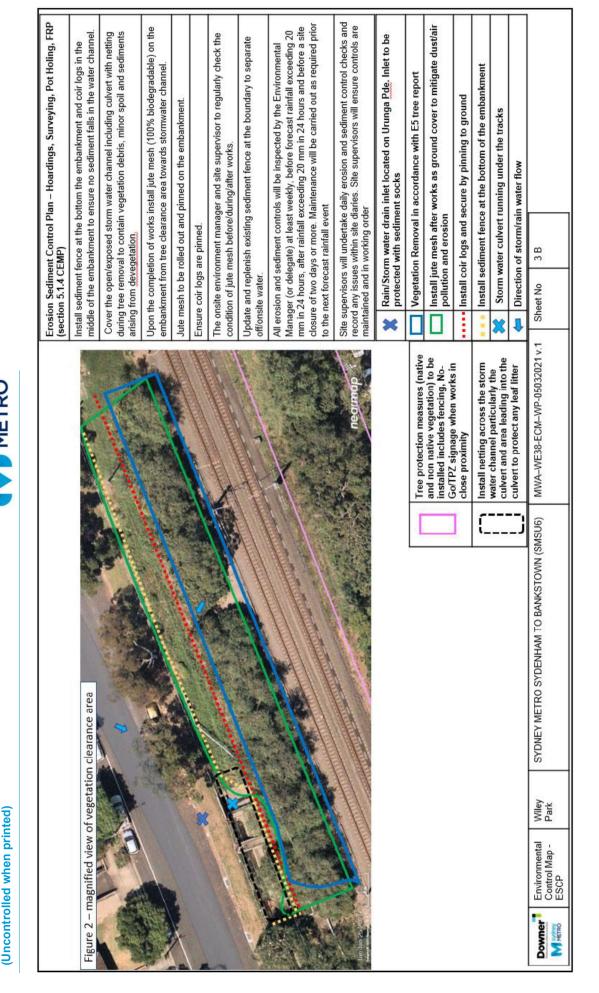
Rain/storm water run off direction to nearest existing drainage channels and inlets

Vegetation Clearance, Install jute mesh after works as ground cover to mitigate dust/air pollution and erosion

Environmental Control Map -ESCP

Downer M METRO

Wiley





SMSU6: ENVIRONMENTAL CONTROL MAP - WILEY PARK STATION

BENERAL		Feb20-W
Project	Southwest Metro-Station Upgrade Works Package 6	suit any mitigatio
ECM	This ECM is a supplementary document to the SMSUB CEMP and prepared in accordance with Cod. SS. 8256, SM. City & Southwest. Sydenham to Branktown Environmental Impact Statement, SPIR and SR.	KEY ENV Heritage
Activity	Station Upgrade to Metro Standards	100
Site	Wiley Park Station	
Planning Approval	551 8256	
Document	0	
Site Awareness	The team will be trained on this ECM, general environmental Stoue, location of setalitive areas and RRSD controls. Works will be subject to inspections and approval by TMSW NRRER and Downer Environmental Team. This document will be displayed on site and a setalities of the setalities of the setalities of the setalities.	

MACSW SM/TfNSW Environment Manager (NER) Downer Project		
SM/TfNSW Environment Manager (NER) Downer Project	Name	Number
Manager (NER) Downer Project	Tim Solomon	0400034207
Downer Project		
Director	Kristo Bugarija	0428 161 912
Downer Project Engineer	Peter D'Costa	0478 074 294
Downer Site Supervisor	Nick De Palma	0418 555 130
Downer Environment Sustainability Manager	Gareth O'Brien	0428 194 445
Downer Environment Advisor	Abe Sharman	0420989193
Community	Julie Henderson	0415 161 810
Heritage Advisor	Sandra Wallace	(Artefact Heritage)
SM Project Info	1800 171 386 1800 612 173 (West)	
TRNSW 24-hr Complaint Line	1800 775 465	
EPA/OEH Pollution Hotline	131 555	
Emergency	000	
WIRES	1300 094 73	
ACTIVITY DETAIL	ı	ı

KEY ENVIRONMENTAL RISKS	KEY ENVIRONMENTAL RISKS
Heritage	Wiley Park is listed on Canterbury LEP 2012 and ABICOP 3170 heritige register H4801246. This station is being fully redeveloped and constituting the loss of inter-Wer relaiving serfacture building and would no longer meet the threshold for local significance and would likely to be delisted. Three footbridges of moderate againflicance would be removed. All works need to be contained within the approved work boundary. Any directivisual impacts to bettinge significance that must be carefully assessed & delineated, and all works to proceed in ascondance with Movebbe feritinge significance that must be carefully assessed & delineated, and all Movebbe feritiges Strategy (Section 5.2 6 of HMP, Table 12) and Heritige Salvage Register (WA for Construction as per Section 5.2.2 of UMGGAQQ Unexpected First
Air quality	Monitor access points to public roads; debris on public roads generated by construction is to be removed/cleared.
Contamination	Medium risk of unexpected contamination finds, tows kill of fairly designment spilit, tow risk of sedimentation runoff. Work to cease immediately if suspected contamination is encounteed with sing occurantiation delineasted with signage; Occupational hygients to ottend and provide recommendations in accordance with signage; Work of the contamination of the contami
Traffic and Transport	Works located on active train lines with public transport commuters with impacts to current traffic conditions including a mix of pedestrians, cyclists, local paring and road traffic.
Noise	Work compounds situated near sensitive receivers including commercial, educational, industrial, residential and place of worship,

active and pass	industrial, residential and place of worship active and passive recreation areas.
INCIDENT RESPONSE AND REPORTING - Appendix F of CEMP	VG - Appendix F of CEMP
All incidents would be reported in accordance with SM	ccordance with SM
Environmental Incident Classification and Reporting Procedure (SM-17-0000096).	n and Reporting Procedure

MORKING HOURS - City and Southwest Construction Noise and

	200	SS/ EA/ PE	SI I	Reson Reson	ES ES	8 2 8	1000	SS/ PE	II SS
any out of hours work.	Loading and unloading of materials/deliveries to occur as far as possible away from sensitive receivers. Plant used intermittently to be throttled down or shut	down. 44 required by ODHW approval, attended noise monitoring to be undertaisen at the most impacted receiver location. Cingoing noise and / or vibration monitoring not limiting to ODHW would be undertaking suring construction at sensitive receivers during critical periods (ig times when doise entitions are discerted to be at three highest) to departify and sweet at managing interview.	Residential grade mufflers are to be fitted on all mobile plant used on Sydney Metro construction projects. Begular inspection and maintenance of all plant and machinery identifies defective silencing equipment on the Items of plant by regular complexine checks on the noise emassions of all plant and machinery used for the Project would indicate whether mose emissions from plant items were higher than predicted.	All bride silencers are conrectly installed and fully operational for any heavy vehicle. Soil and Water SCP as per section 5.1.4 of SWIMP and Mitigation Measures as per . CDAEB, ES, E38-E41 SPIREMAN: SC1 – SCB, FHW1 – FHW10, HR54, SPIREMAN: SC1 – SCB, FHW1 – FHW10, HR54, CONTEMMINITERION.	All chemicals and hazardous liquids would be stored away from drainage lines in a bunded and impervious enclosure. Spill kils to be located close to active work areas and near chemical and hazardous liquid storage areas as	indicated in the ECM. All staff would be made aware of the boaston of the spill sits. Vehicles and machinery would be properly maintained Vehicles and machinery would be properly maintained looks.	In the event of a pollution incident, works would cease in the immediately worldy and Site Supervisor would immediately notify the Downer Project Manager who would notify MR/RF and SM Project Detector.	All sool to be removed from site would be classified according to the NSW Waste Classification Guidelines and Sippode at an appropriate landfill. Material to be reused or stockplied on site permainently is to be texted for contamination per the NEPM (ASC) criteria for commercial/industrial land use.	immediately report incidents where water has been discharged and not wholly contained within the project boundary. Application as per Water Discharge and Reuse Procedure
	Landard	ds: carried a one- o) to be	Modules to pool to po	EA/	₩	ង	Resp	N N	SS IN
Sat: 08H00 to 18H00	No works on Sundays or public holidays. As per COAE24 high noise generating works during standard	working sours to be compered authing the following periods: Mon – Fri: 08h-00 to 13h-00 * High noise generating activities hear receiver, should be carried out in blocks that do not exceed three hours each, with a one- out in blocks that do not exceed three hours each, with a one- out in blocks that do not exceed three hours each, with a one- out of Hours Works Assessment Procedure (SM ES-PW-310) to be Out of Hours Works Assessment Procedure (SM ES-PW-310) to be appead, all work outside standard working hours are considered	Out of Hours Works, (DDHW), and require approval prior to commercing. The OOHW application from SW-12-00000115 (enclosed in Appendix O of WWM) to be used in accordance with SM-12-00005396 City & Southwest out of fluoris work protocol. MITGATION MEASURES. MITGATION MEASURES and based on Cola, REMM, CEMF and CEMP and sub-plants (avaiting approval). General Control/Mitigation Resip	All site personnel (including sub-contractors) to have completed the project induction, including: Location and proximity of nearest sensitive receivers. Heritage present on site, Vegetation to be removed or protected; Access and egress points: Unespected finds procedure for sensitive areas not limiting to contamination, heritage, float & flums.	Emergency and Incident response includes incident notification to be undertaken in accordance with the requirements of CoA 436 and 437 and the Sydney Metro incident and Non-compliance Reporting Procedure SM-17-40000096.	Pre-start attendance register, and toolbox attendance register are signed by a since personner register are signed by a since personner. No work outside the approved market boundary. Ensure all service identification tasks have been completely and service locations are market out prior to commercially work.	Noise and Vibration - CoA E18-34, SPIR REMM: NVCI – NVCIS, SEASON 90 (CEMF Control/Kritgallon Scarcol/Kritgallon Stationary Poses sources such as generators will be:	enclosed or shelded where grastitiable. No swearing or unnecessary shouting or loud steneos/radios on site. No dropping of materials from height, throwing of metal itens and stamning of doors.	range of a sensitive receiver is to be avoided. Plan traffic flow, parking and losding/unloading areas to minimize severing movements within the site. Non-trons reversing beepers (or an equivalent

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SMSU6: ENVIRONMENTAL CONTROL MAP - WILEY PARK STATION

Environmental Advisor for any reuse or discharge of water.	70	All personnel working on sit heritage elements in the wo
Any contaminated material stockpiles (asbestos) will be covered on-site and short-term material stockpiles (>5 days not in use) with potential to renerate dust will be	SS A	Multiple items of heritage s
wetted down or covered to prevent highlore dust emissions or run-off during wet weather. Long-term stockpiles (>30 days) will be stabilised and for covered in the control of the contr		Moveable Heritage Strategy platform buildings, booking overbridges. All these need
accreame with the book requirements A dewatering permit is to be in piece for all dewatering activities, including the dewatering of any groundwater,	EA / PE/	Stop all work immediately w
Air Quality - Appendix E. Environmental Procedures CEMP CoA E2, SPIR REMIM AQ1	a	Sydney Metro Unexpected SM-18-00105232 - Appen
Cover stockpiles when not in use to prevent wind	SS /	implemented in case of any non-aboriginal heritage item. The site to be delineated wi
eronann and eronann and from Cover (odds on trucks transporting material to and from the construction site and securely fit tailgates of road transport tucks prior to loading and immediately after unloading.	ž.	and heritage advisor who consulted for a states. Flora & Fauna - Appendix E. CoA - E3-E5, REMM SPIR RE
Prevent mud and dirt being tracked onto sealed road surfaces. If mud or dirt has been tracked out of site, sweep/remove this material.		Control/Mitigation Unless stated on the ECM of Environmental Advisor, no v
Apply water (with an onsite water cart) on to dampen exposed surfaces (e.g., unpaved roads, stockpiles, hardstand areas and other exposed surfaces).		on site as per section 3.13 h Any vegetation not approve follow the Flow Chart on sie
Plant and machinery not to be left idling.		Appendix E (Procedure 1:8)
All plant and machinery would be litted with emission control devices complying with relevant Australian Standards.		endangered and threatered would be undertaken by au
Machinery and plant that will be kept on site will be		clearing occurring. The surv
serviced as per manufactures specifications. Vehicle movements would be limited to designed entries		in accordance with the mea
and exits, work areas, haulage routes and parking areas. Dust generation would be monitored visually, and where		Biodiversity assessment rep REMIM B3 - Areas of biodive
required, dust control measures such as water spraying would be implemented to control the generation of dust. Access points would be inspected to determine whether		project area would be mark signposted where practicab disturbance.
setiment is being transferred to the surrounding road metwork, if required, sediment would be promptly serviced from society to minimize dust handwarden.		(Bowny Wattle Turpentine on shale Degraded Turpent
Stabilisation of any exposed surfaces as soon as:		forest on shale and Broad-le would be avoided. The local
Daily inspections and regular surveillance would be undertaken to identify any vehicles, plant or equipment	я	communities would be man and avoided.
that is causing visible emissions. I tany defective vehicles, plants or equipment are identified, operation of this machinesy would <u>rease</u> and service/maintenance would be undertaken.		restricted to identified com- cleared land. REMM 86 - A trained ecolog
Stockpiles will be maintained and contained appropriately, which could include covering or regular watering to minimise dust.		the cleaning of native vegets fauna habitat to avoid impa salvage habitat resources as REMM B7 - Priority weeds v
Heritage		accordance with the Biospor

	9	1:	- 1	4	4	VA:	Q1	O1			Á	R	4		01	⋖.	100	200		m o
REMMI VIZ. * Treas to be realished would be protected by establishing Tree Protection Zone prior to the commencement of construction including any tree pruning to be undertaken guided by a tree report.	prepared by a qualified arbords and upon approval from Syditey Metro. Immediately report any demans to 1) threatened conclude.	2) retained trees or trees that have been trimined or removed without approval, and all work to stop immediately.	Call a Project Ecologist/spotter/catcher onsite for adule.	If animals are encountered, leave them alone and contact Site Supervisor and Environmental Advisor.	Protection 'no go zone' to be place for any threatened species	Modify the route of trenching to avoid any damage to	All stocks and the stocks. All stocks are in the stock of the	Frotestonyong zone Soil with weed material be removed prior to any movement off site. To reduce the spread of weeds no	that all machinery, vehicles and equipment are free of	weed material defore entering and exting the works areas.	Waste and Spoil - Appendix E. Environmental Procedures CEN CoA – E73 to E76 REMIM – WM1 to WM7	Control/Mitigation	Waste disposal locations and applicable EPIs are to be adentified prior to deposal and are subject to Downer approval prior to enthowal from slice. —HOLD PONIT All recyclable waste would be recycled where possible Material or spoil that has the potential to contain assessor or other contaminaris will be texted and will be	managed by an appropriately licensed contractor as required.	All wastes will be removed from site at the completion of the broiset and will be tracked.	in accordance with CoA E40, the Unexpected Contaminated Lund Procedure and Asbestos Finds. Procedure (refer Appendix B of CEMP) to be followed in the event of an unexpected find.	Any construction waste generated will be stored in bins as appropriate. Cover stocknies with avoids or like material and secure	the base to avoid erosion and sediment control. CoA E73 - Any items or infrastructure that are salwaged in the property of the sediment that are salwaged in the relevant CRMP Sub-	plan (Condition C3). Note: reuse of items may include signal boxes, indicators; buillast or other rail infrastructure. These litems should be offered to Sydney Train or reuse.	CoA E74 - The importation of waste and the storage, treatment, protesting, reprotesting or disposal of such waste must comply with the Protection of the Environment Operations Act 1997, under the Protection of the Environment Operations (Waste) Regulation 2014,
₩		70,		<i>0</i> 2				MP	/S S	X	EA	FA	3	SS /			Į	я	43	
All personnew working on visit are to be aware of all the heritage elements in the work area and "No go" areas to be clearly communicated. Multiple items of heritage algusfleance to consider (refer	this ECM, Section 5.2 Built Heritage Mgt and Table 12 in Moveable Heritage Strategy of HMP) includes islands, platform hulldings brokens offices footbadde.	overbridges. All these needs to be visibly delineated to minimise the risk of undertaking disturbance. Store all work immediately when items are so or not interested to the risk of undertaking disturbance.	stop at work intributions when terms areas of potential theritage are suspected and notify Downer Project.	Manager and Environment Heritage Officer. Sydney Metro Unexpected Heritage Finds Procedure	SM-18-00105232 - Appendix D of HWP will be implemented in case of any unexpected abortainal or	mon-aborigmal heritage item is found on site; The site to be delineated with canada as inc. and one	and heritage advisor will be immediately informed and	Consulted to marker. Flora & Fauna - Appendix E. Environmental Procedures CEMP COA - E3-E6, REMM SPIR REMIM, CEMF Section 11	Unless stated on the ECM or prior approved by	on site as per section 3.13 Mold Points of CEMP	Any vegetation not approved for removal or trimming to follow the Flow Chart on clearing procedure under Appendix E (Procedure 1: Biodiversity) of CEMP.	REMM B2 - Pre-clearing surveys and inspections for	endangered and threatered flora and fauna species would be underlaken by valifiled exolgists prior to any vouil fee underlaken by valifiled exolgists prior to any subsequent relocation of species, would be undertaken in accordance with the resource provided in the bloddwersity assessment report.	REMM B3 - Areas of biodiversity value butside the project area would be marked on plans, and faced or	signposted where practicable, to prevent unnecessary disturbance.	REMM B4 - Impacts to Native and <u>Non Mattee</u> Vegetation (Downy Wattle Turpentine - Grey Ironbark open forest on shale, Degraded Turpentine – Grey Ironbark open forest on shale and Broad-leaved Ironbark - Grey Box)	would be avoided. The locations of these species and communities would be marked on plans, fenced on site, and avoided.	REMM B5 - Equipment storage and trockpiling would be restricted to identified compound sites and afready cleared land.	REMM B6 - A trained ecologist would be present during the cleaning of native vegetation or renoval of potential faura habitat to avoid inpacts on resident faura and to salvage habitat resources as far as is pacticable.	REMM B7 - Priority weeks would be managed in accordance with the Bisanority Act 2015. Weeks of mational environments ignificance would be managed in accordance with the Weeks of National Significance Week Management Guide.

COA E10-E17
 SPIR REMM: AH1 – AH5, NAH1 – NAH23
 Section 10 of CEMF

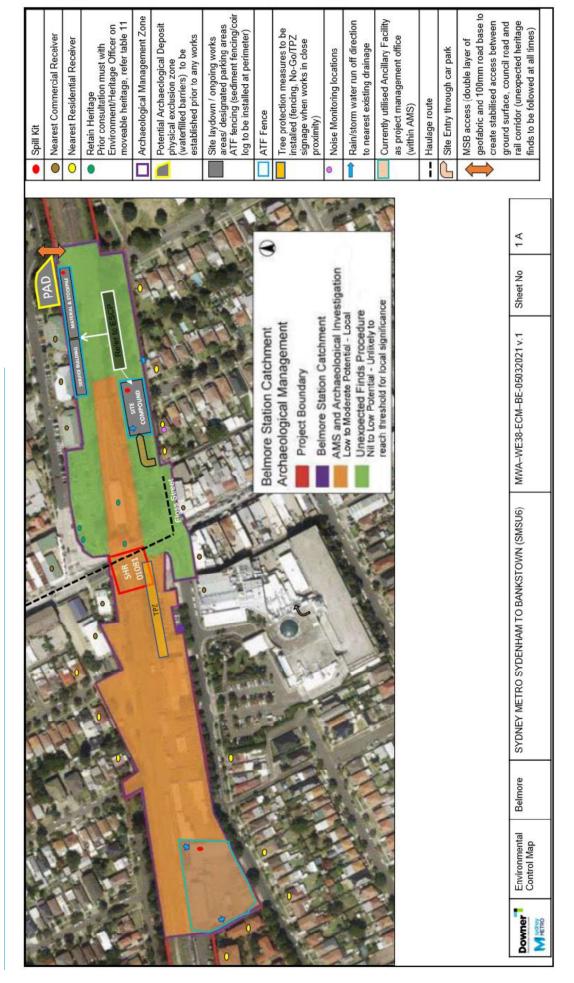
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SMSU6: ENVIRONMENTAL CONTROL MAP - WILEY PARK STATION

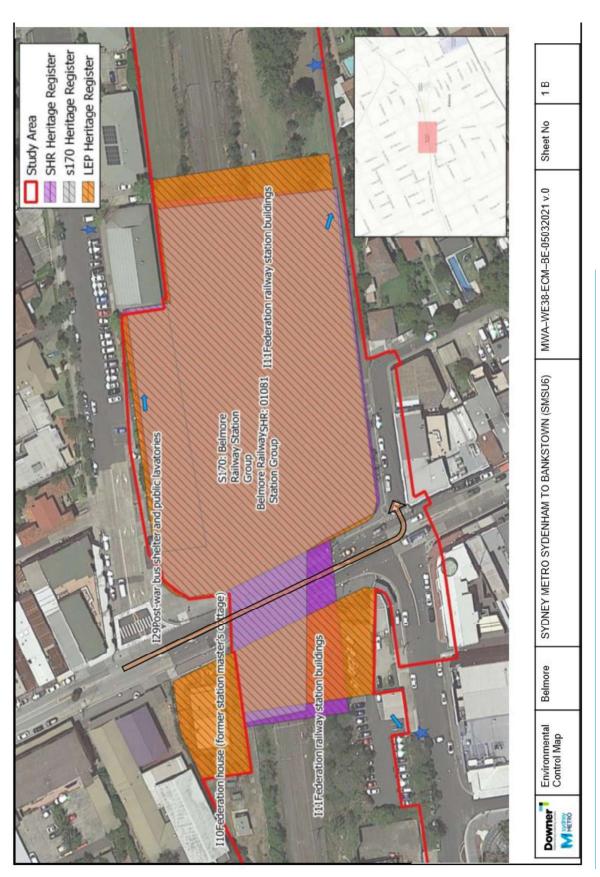
Entry/Exit	Retail shop & disused premises - demolish	Lifts - new	Heritage - platform	Heritage – overhead booking office, concourse and platform buildings	Location/Feature	top	Pedestrian pathway	Bike area - new	Nerbside facilities and parking
Entry	Retai	Lifes	Herit	Herit book and p	Local	dats sng	Pede	Bike	Kerbsid
The existing station entrance would be retained and upgraded,	Existing retail shop and disused premises at station entrance would be demolished.	Two new lifts would be provided.	The existing heritage listed platform would be re-levelled.	The existing heritage listed overhead booking office, concourse and platform buildings would be retained and re-levelled.	Station Area	Existing bus stops retained.	Existing pedestrian pathways surrounding the station would be upgraded.	New bike parking area would be provided on The Boulevarde and at the station entrance.	New kerbside facilities and accessible parking would be provided on The Boulevarde, east of King Gazone Boalevarde,





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Image			
Recommended Action	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room Potential to be scanned for incorporation into the Heritage Interpretation Strategy (Artefact, 2020). Potential to be donated to the ARHS.	Sheet No 2 A
Likely Impacts	Booking office to be converted to Sydney Metro use	Booking office to be converted to Sydney Metro use	-05032021 v.0
Artefact Significance/ Condition (2020)	Little to Moderate / Good	Little / Good	MWA-WE38-ECM-BE-05032021 v.0
Sydney Trains Significance/ Condition (2019)	Moderate / Good	Little / Good	
Notes/ History	Small safe - Pioneer Explosive Proof Safe by M G Dyke and Sons, Melbourne, painted cream. Standard 'off the shelf safe used throughout entire rail network for select work practices i.e. cash handling, assets Might contribute to the interpretation of historical ticketing practice in the railways, historical railway fumishings; historical railway fumishings; security in the railways security in the railways security in the railways security in the railways.	1985 SRA 125 rail centenary historic photo of Belmore Station after it was opened in 1895. "One of a series produced by the State Rail Authority of NSW to commemorate the 125th Anniversary of railways in NSW". Not located at the Australian Railway Historical Society (ARHS).	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Location within station	Overhead Booking Office	Overhead Booking Office	Y METRO SYD
Description of object	White cast iron safe	Historic photo	Belmore SYDNE
Category	Fumiture	Art and prints	Environmental Be Control Map
Registration Number	BMO0001	BMO0002	Downer C

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(Uncontrolled when printed)



Image	The state of the s		T	o 2B
Recommended Action	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	2021 v.0 Sheet No
Likely Impacts	Booking office to be be converted to Sydney Metro use	Booking office to be converted to Sydney Metro use	Booking office to be converted to Sydney Metro use	:CM-BE-0503;
Artefact Significance/ Condition (2020)	Moderate / Good	Little / Good	Little / Good	MWA-WE38-ECM-BE-05032021 v.0
Sydney Trains Significance/ Condition (2019)	Moderate / Good	Little / Good	Little / Good	TOWN (SMSU6)
Notes/ History	Representative example of a typical railway signalling lamps, signalling lamps, signalling work processes and practices. Illustrative of the developmental change in technologies in signalling and safe working functions in the railways. Also illustrates Sydney Trains previous corporate identity and history of Sydney Trains previous Corporate identity and predecessor agencies: Public Trains and predecessor agencies: Public Trains or 1970s-80s.	20th century timber desk organiser.	standard point clip. used to secure points or joints in track to prevent movement. Primarily used by track workers when fixing track or used by shunters when points) SYDENHAM TO BANKSTOWN (SMSU6)
Location within station	Overhead Booking Office	Overhead Booking Office	Overhead Booking Office	SYDNEY METRO SYL
Description of object	Orange hand lamp - signalling	Timber file /shelving	Points clip	Belmore SYI
Category	Operational objects	Fumiture	Signals and communication	Environmental Control Map
Registration	BMO0003	BMO0005	BM00006	Downer Name

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(Uncontrolled when printed)



Image			THE MACHINE THE STATE OF THE ST	HA NORMA THEOREM		2 C
Recommended Action		Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	Sheet No
Likely Impacts		Booking office to be converted to Sydney Metro use	Booking office to be converted to Sydney Metro use	Booking office to be converted to Sydney Metro use	Booking office to be converted to Sydney Metro use	E-05032021 v.C
Artefact Significance/ Condition (2020)		Moderate / Good	Rare / Good	Rare / Good	Little to Moderate/ Good	MWA-WE38-ECM-BE-05032021 v.0
Sydney Trains Significance/ Condition (2019)		Moderate / Good	Rare / Good	Rare / Good	More research required/ unknown	
Notes/ History	are oldworn. Often found in signal boxes due to the communication required between track workers and signallers. Still in use today. Potential to be used as a prop in signal box.	c.1980s plastic-coated Network map with handwritten ticket codes; modified SRA logo used as North arrow	Emergency window repair kit in canvas sleeve. One of two.	Emergency window repair kit in canvas sleeve. Two of two.	Memorabilia. Item related to ongoing broader organisational involvement in safety culture awareness-illustrative of the ongoing 'safety first' movement implemented in 1914 by railways.	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Location within station		Overhead Booking Office	Overhead Booking Office	Overhead Booking Office	Overhead Booking Office	EY METRO SY
Description of object		Network Map with ticket codes	Emergency Window Kits	Emergency Window Kits	Box of booking office objects office objects (Blue and white CityRall staff commendation coffee cup for CSM Bankstown staff)	Belmore SYDNE
Category		Maps	Operational objects	Operational objects	Work	Environmental E
Registration Number		BM00007	BM00008	BM00009	BM00010	Downer E

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Image	A CONTRACTOR OF THE PARTY OF TH		ROSEHILI RACE TRANI DENATS NO.2 PLAT KARM TREO AM. SAT	2 D
Recommended Action	Temporarily remove during works and restore to original room.	Temporarily remove during works and restore to original room.	remove during remove during works and restore to original room.	I v.0 Sheet No
Likely Impacts	Booking office to be converted to Sydney Metro use	Booking office to be converted to Sydney Metro use	Booking office to be be converted to Sydney Metro use	A-BE-0503202
Artefact Significance/ Condition (2020)	Little to Moderate/ Good	Little/ Good	Moderate / Good	MWA-WE38-ECM-BE-05032021 v.0
Sydney Trains Significance/ Condition (2019)	Little to Moderate/ Good	Little/ Good	Moderate / Good	WN (SMSU6)
Notes/ History	Memorabilia. Item related to ongoing broader organisational involvement in safety culture awareness-illustrative of the ongoing 'safety first' movement implemented in 1914 by railways.	Early timber box holding several boards displaying various printed train timetables	Timber noticeboard with timber frame for special train notices for Rosehill Racecourse. Includes writing on the back as well. Old and rare. Likely not original to the station as it refers to Rosehill Racecourse near Parramatta, rather than the nearer Canterbury Racecourse - more research on special race day trains is required. Rare sign illustrating historic tradition of special race day trains is required. Rare sign illustrating historic tradition of special race day train services offered to public.	SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Location within station	Overhead Booking Office	Overhead Booking Office	Overhead Booking Office	NEY METRO S
Description of object	RailCorp Coffee Mug	Timetable Box	Noticeboard for Rosehill racecourse	Belmore SYDI
Category	Memorabila	Furniture	Signage	Environmental Control Map
Registration Number	BM00011	BMO0012	BM00013	Downer N Sydney

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lmage				
Recommended Action	Temporarily remove during works and restore to original room.	Retain in location and protect during works	1	2 E
Likely Impacts	Booking office to be converted to Sydney Metro use	Platform to be regraded		Sheet No
Artefact Significance/ Condition (2020)	High / Good	Moderate/ Good		MWA-WE38-ECM-BE-05032021 v.0
Sydney Trains Significance/ Condition (2019)	High / Good	Not assessed by Sydney Trains		MWA-WE38-EC
Notes/ History	Timber-framed notice with printed information on parcel charges. Titled "Scale of Charges for Carriage of Parcels". "SRA Print 1980" at base of notice. The notice of fees is an important element in the history of parcels and, later, luggage processing on the railways. Typically, the item will have been used by railways staff within a parcels office or possibly the Telegraph Office to calculate fees for transfer of goods.	Reinstated heritage bubblers.		SYDNEY METRO SYDENHAM TO BANKSTOWN (SMSU6)
Location within station	Overhead Booking Office	Platform		RO SYDENHAN
Description of object	Notice of parcel fees	Two cast iron bubblers on platforms		SYDNEY MET
				Belmore
Category	Signage	Operational		Environmental Control Map
Registration Number	BM00014	No item code. Listed on the SHI.		Downer C

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				No item code	шS
Category	Fumiture	Furniture	Safe	Furniture	Environmental Control Map
Description of object	Timber cabinet	Ceramic sink	Cast iron safe	Timber joinery	Belmore SY
_	Station platform building, current cabinet room	Station platform building, current cabinet room	Station platform platform building, current cabinet room	Station platform building, current cabinet room	SYDNEY METRO SYL
Notes/ History	Timber cabinet located within station platform building. Original door furniture.	Original ceramic sink located in station platform building	Original safe located in station platform building	Original timber joinery located in station platform building	YDENHAM TO BANKSTOWN (SMSU6)
Sydney Trains Significance/ Condition (2019)	Not assessed by Sydney Trains	Not assessed by Sydney Trains	Not assessed by Sydney Trains	Not assessed by Sydney Trains	1
Artefact Significance/ Condition (2020)	Moderate / Good	Moderate/ Good	Moderate/ Good	Moderate/ Good	MWA-WE38-ECM-BE-05032021 v.0
Likely Impacts	Room not to be modified	Room not to be modified	Room not to be modified	Room not to be modified	BE-05032021 v
Recommended Action	Retain in existing location and protect during works	Retain in existing location and protect during works	Retain in existing location and protect during works	Retain in existing location and protect during works	.0 Sheet No
Image					2 F

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SMSU6: ENVIRONMENTAL CONTROL MAP – BELMORE

GENERAL		Feb20-Mar2(
Project	Southwest Metro Station Upgrade Works Package 6	suit any spec mitigation m
ECM	This ECM is a supplementary document to the SMSU6 CEMP and prepared in accordance with Cod Sci 8256, SMC IQN 8 Southwest. Sydenhim to Bankstown Environmental Impact Statement, SPIR and SR.	KEY ENVIRON Heritage
Activity	Station Upgrade to Metro Standards	-00
Site	Belmore Station	
Planning Approval	SSI 8256	-0-0
Document Version	0	
Sile Awareness	The team will be trained on this ECM general environmental issues, location of servicing areas and EROs controls; Works will be subject to inspections and environmental by TMCKW, Mill RESPE, and TMCKW, and annexed by TMCKW, Mill RESPE, and TMCKW, and TMCKW, Mill RESPE, and TMCKW, MILL TMCKW, M	
	Environmental Team; This document will be displayed on site	Air quality

PROJECT CONTACT DETAILS	Name	Nichber
-	Name of the last	Marines.
SM/TfNSW Environment Manager (NER)	Tim Solomon	0400034207
Downer Project Director	Kristo Bugar ja	0428 161 912
Downer Project Engineer	Peter D'Costa	0478 074 294
Downer Site Supervisor	Nick De Palma	0418 555 130
Downer Ervironment Sustainability Manager	Gareth O'Brien	0428 194 445
Downer Ervironment Advisor	Abe Sharman	0420 989 193
Community	Julie Henderson	0415 161 810
Heritage Advisor	Sandra Wallace	(Artefact Heritage)
SM Project Info Line	1800 171 386 1800 612 173 (West)	ū
TFNSW 24-hr Complaint Line	1800 775 465	
EPA/OEH Pollution Hotline	131 555	
Emergency	000	
WIRES	1300 094 73	
ACTIVITY DETAIL		ı
Descriptions		Contract for extracts

ROJECT CONTACT DETAILS	DETAILS		9253-	finds, Low-risk of plant/equipment spiles,
ile.	Name	Number		cow risk of sequimentation runors,
M/TfNSW rvironment lanager (NER)	Tim Solomon	0400034207	De 10	Works to cease immediately if suspected contamination is encountered with area of contamination delineated with signage.
owner Project irector	Kristo Bugarija	0428 161 912	D-0	Occupational hygienist to attend and provide recommendations in accordance
owner Project rigineer	Peter D'Costa	0478 074 294	Traffic and	with SM/TINSW/EPA/Downer guidelines. Works located on active train lines with
owner Site opervisor	Nick De Palma	0418555130	Transport	public transport commuters with impacts to current traffic conditions including a mix of
owner	Gareth O'Brien	0428 194 445	200	pedestrians, dyclists, local paring and road traffic.
ustainability Isnager			Noise	Work compounds situated near sensitive receivers including commercial, educational,
owner	Abe Sharman	0420 989 193		industrial, residential and place of worship, active and passive recreation areas.
ormmunity	Julie Henderson	0415 161 810	INCIDENT RESPO	INCIDENT RESPONSE AND REPORTING - Appendix F of CEMP
lanager		- West State Control of the Control	All incidents wor	All incidents would be reported in accordance with SM
eritage Advisor	Sandra Wallace	(Artefact Heritage)	Environmental Incid (SM-17-00000096).	Environmental Incident Classification and Reporting Procedure (SA-17-00000096).
M Project Info	1800 171 386 1800 612 173 (West)	D.	WORKING HOUR	WORKING HOURS - City and Southwest Construction Noise and
NSW 24-hr	1800 775 465		Vibration Strates	Vibration Strategy (SM ES-ST-210)
ompaint tine	136 550		0 Coli E39 - E76	
ollution Hotline	151.555		Mon - Fri:	07H00 to 18H00
тегдепсу	000		Sat	d8h00 to 18h00
MRES	1300 094 73		No works on Sun	No works on Sundays or public holidays.
CTIVITY DETAIL			As per CoAE24	As per CoAE24 high noise generating works during standard
escription			Working Hours to	working nours to be comprehen during the following periods:
rly works, site es	arly works, site establishment, mingr ancillary facilities	ncillary facilities	Man - Fr	USPACETO 1880U

* High noise generating activities near receivers should be carried out in blocks that do not exceed three hours each, with a one-hour respite period in between. 10.20-Mar20; continual update of this ECIM will be undertaken to it any specific requirements for each stages of works, with all tigation measures approved by SM NER/ER prior to po

Ongoing noise and / or vibration monitoring not limiting

Out of Hours Works (DOHW) and require approval prior to commencing. The OOHW application form SW-17-00000115 Out of Hours Works Assessment Procedure (SM ES-PW-310) to be applied, all works outside standard working hours are conside MITIGATION MEASURES

> Belmore is State Heritage listed and works need to be contained within the approved work boundary. Moderate direct/visual impacts to three items of heritage significance that must be delineated, and all works to proceed in accordance with

Witigation measures are based on CoA, REMIM, CEMF and CEN of HMP, Table 11) and Heritage Salvage Register (N/A for Construction as per Section 5:2.7 of HMP and Unexpected Finds Moveable Heritage Strategy (Section 5.2.6

General	
Control/Mitigation	Resp
All site personnel (including sub-contractors) to have	/55
completed the project induction, including:	EA /
 Location and proximity of nearest sensitive 	급

receivers; Heritage present on site;			the second
	receivers."	Heritage present on site;	to his exemption

Register #4801084, Canterbury LEP 2012 and RailCorp s170 heritage register

Monitor access points to public roads.

#4801084

debris on public roads generated by

Note" Belmore Station is State Heritage

rocedure for sensitive area sation, heritage, flora & far response includes inciden	ed finds procedure for sensitive area contamination, heritage, flora & far dincident response includes inciden	 Unexpected finds procedure for sensitive areas not limiting to contamination, heritage, flora & fauna, mergency and lacident response includes incident
sation, he	ed finds procedure contamination, he dincident response	Unexpected finds procedure limiting to contamination, he ergency and incident response
	contamir dincident	Unexpected finds polymers in the property and incident

construction is to be removed/cleared. Medium risk of unexpected contamination

finds; Low risk of plant/equipment spills

The same of the Control of the contr
mergency and incident response includes incident
ofification to be undertaken in accordance with the
equirements of CoA A36 and A37 and the Sydney Metro
scident and Non-compliance Reporting Procedure 5M-
2 Addresses

	3		
17-0d000d96.	rre-start attendance register, and toplbox attendance egister are signed by all site personnel.	works outside the approved marked boundary.	Ensure all service identification tasks have been

register are signed by all site personnel.
No works outside the approved marked boundary.
Ensure all service identification tasks have been
completed and service locations are marked out prior to
commencing work.
Noise and Vibration - CoA E18-34, SPIR REMM: NVC1 -

	04	201
NVC16, Section 9 of CEMF	Control/Mitigation	Stationary noise sources such as generators will be

Stationary flode sources such as generators will be	A
enclosed or shielded where practicable.	
No swearing or unnecessary shouting or foud	Ψ
stereos/radios on site.	
No dropping of materials from height, throwing of metal	
items and slamming of doors.	
Simultaneous operation of noisy plant within discernible	
range of a sensitive receiver is to be avoided.	
Plan traffic flow, parking and loading/ unloading areas to	SS
minimize reporting movements within the city	

Plan traffic flow, parking and loading/ unloading areas to minimise reversing movements within the site.	Ø
Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work.	ii d
Loading and unloading of materials/deliveries to occur as far as possible away from sensitive receivers.	
Plant used intermittently to be throttled down or shut down.	
As required by OOHW approval, attended noise	S
monitoring to be undertaken at the most impacted receiver location.	절품

on at when () to	obile SS			ns or	Tifems	8	9	Measures as		Resp		SS		3	ned SS	_	ease in All	1000	ibe PE	ested	n All	oject	cedure SS	F 76	200	(>5 EA	£
to OOHW would be undertaking during construction at sensitive receiver during critical periods (ig times when moles emissions are expected to be stuffle fightest) to indeed and and social an amonate him eight indeed and social an amonate him eight indeed and accide an amonate him eight indeed and accident accident and accident accident and accident ac	Residential grade mufflers are to be fitted on all mobile	plant used on Sydney Metro construction projects. Regular inspection and maintenance of all plant and	machinery	plant by regular compilance checks on the noise aministry of all plant by regular compilance checks on the noise aministry of all plant and machinest used for the Bosteria	would indicate whether noise emissions from plant items	were higher than predicted,	operational for any heavy vehicle	Soil and Water ESCP as per section 5.1.4 of SWMP and Mitigation Measures as	per: - Cod E8, E9, E18-E41 - SPIR REMAN: SC1 – SC8, FHW1 – FHW10, HRS4, - Section 15 of CEMF	Control/Mitigation	All chemicals and hazardous liquids would be stored away from drainage lines in a bunded and impervious	enclosure. Spill kits to be located close to active work areas and	near chemical and hazardous liquid storage areas as indicated in the ECM.	All staff would be made aware of the location of the spill ker.	Vehicles, and machinery would be properly maintained and routinely inspected to minimise the risk of fuel/oil	Reaks.	In the evert of a poliution incident, works would cease in the immediate vicinity and Site Supervisor would immediately notify the Downer Project Manager who would notify NR-RR and SM Project Diector.	All spoil to be removed from site would be classified	according to the NSW Waste Classification Guidelines and disposed at an appropriate landfill. Material to be	reused or stockpiled on site permanently is to be tested for contamination per the NEPM (ASC) criteria for	commercial/industrial land use: Immediately report incidents where water has been	discharged and not wholly contained within the project boundary.	Application as per Water Discharge and Reuse Procedure	(switzerwasse) required tollowed by approva from Environmental Advisor for any reuse or discharge of water.	Any contaminated material stockpiles (asbestos) will be	covered on-site and short-term material stockpiles (>5 days not in use) with potential to generate dust will be wetted down or covered to prevent fusitive dust.	emissions or run-off during wet weather, Long-term

002 - WE38+ Rev2 CLEAN

accordance with "Blue Book" requirements



appropriate records, and disposal dockets retained for audit purposes.

SMSU6: ENVIRONMENTAL CONTROL MAP - BELMORE

A dewatering permit is to be in place for all dewatering activities, including the dewatering of any groundwater.	EA / Stop all work immediately when Henrs, areas of got PE, heritage are suspected and notify Downer Project Manager and Environment Heritage Officer.	ns/ areas of pob owner Project Officer.
Air Quality - Appendix E: Environmental Procedures CEMP CoA E2, SPIR REMM AQ1	Sydney Metro Unexpected Heritage Finds Procedure [SM-18-001d5232] - Appendix D of HMP will be	Finds Procedure HMP will be
Cover stockoles when not in use to prevent wind:	Resp implemented in case of any unexpected aboriginal or non-aboriginal heritage item is found on site:	cted aboriginal o d on site:
erosion and dust.		ge as 'no' go' zo
Cover loads on trucks transporting material to and from the construction site and securely fix taligates of road transport trucks prior to loading and immediately after unloading.	and heritage advisor will be immediately informed a consulted for places. For the former of Flora & Faura - Appendix E. Environmental Procedu CoA - E3-E5, REMM SPIR REMM, CEMI Settion 11	ately informed a mental Procedu MF Section 11
Prevent mud and dirt being tracked onto sealed road surfaces. If mud or dirt has been tracked out of site, owenofermore this material.	Control/Mrigation Unless stated on the ECM or ptior approved by Environmental Advisor no weekston is to be remore	pproved by
Apply tonoce that materials and to dampen exposed surfaces le.g., unpaved roads, stockpiles, exposed surfaces le.g., unpaved roads, stockpiles, that distants are as and other exposed surfaces).	on site as per section 3.13 Hold Points of CEMP Any vegetation not approved for removal or trimmir follow the Flow Chart on clearing procedure under	nts of CEMP noval or trimmir ocedure under
Plant and machinery not to be left idling.	Appendix E (Procedure 1: Biodiversity) of CEMP	ty) of CEMP.
All plant and machinery would be litted with emission control devices complying with relevant Australian Standards	NEWM B.L. Pre-cleaning surveys and inspections for endangered and threatened flora and fauna species would be undertaken by qualified ecologists and to	d fauna species cologists prior to
Machinery and plant that will be kept on site will be serviced as per manufactures specifications.	clearing occurring. The surveys and inspections, and subsequent relocation of species, would be underta	inspections, and ould be underta
Vehicle movements would be limited to designed entries	in accordance with the measures provided in the	ovided in the
and exits, work areas, natidate fourth and parking areas. Dust generation would be monitored visually, and where	REMM B3 - Areas of biodiversity value outside the	ue outside the
required, dust control measures such as water spraying would be implemented to control the generation of dust.	project area would be marked on plans, and renced signoated where practicable, to prevent unnecessaries in the area.	ans, and fenced event unnecessa
access goins would be trapected to determine whether sediment is being transferred to the surrounding road methods of transitive endinement would be recovered.	Accompanies to Native and Mon Matthe Veget (Downy Wattle Turnentine - Grey Ironbark open for	on Mathe Vegel
removed from coads to minimise dust generation.	on shale, Degraded Turpentine – Grey Ironbark oper forest on shale and Broad-leaved Ironbark – Grey Bo	ey Ironbark ope onbark – Grev Bo
practicable.	would be avoided. The locations of these species an	these species an
Daily inspections and regular surveillance would be undertaken to identify any vehicles, plant or equipment	communities would be marked on plans, fenced on and avoided.	ilans, fenced on
that is causing visible emissions. If any defective vehicles, plants or equipment are identified, operation of this machinery would <u>cease</u> and service/maintenance would	NEVMA IS - Equipment storage and stockpiling woul restricted to identified compound sites and already cleared land.	stockpiling woul
be undertaken. Stockpilles will be maintained and contained appropriately, which could include covering or regular	MENNIN BO - A trained ecologist would be present out the cleaning of native vegetation or removal of pote fauna habitat to avoid impacts on resident fauna and solvane habitat requires as the assist conficultion.	to be present our removal of pote sident fauna an
Matering to minimise dual. - CoA E10-E17 - SPIR REMM: AH1 – AH5, MAH1 – MAH23	REMM B7 - Prority weeds would be managed in accordance with the Biosecurity Act 2015. Weeds of national environmental significance would be national environmental significance would be	managed in 2015. Weeds of would be
Control/Militation	Resp Significance Weed Management Guide.	ide.
ing on site are to be aware of all the on the work area and "No go" areas to icated.	12	would be protect priot to the luding any tree
Multiple Items of heritage significance to consider (refer this ECM, Section 5.2 Bullt Heritage Mgt and Table 11 in Moveable Heritage Strategy of HMP) includes islands,	pruning to be undertaken guided by a tree report prepared by a qualified arborist and upon approva! Sydney Metro.	a tree report upon approval
platform buildings, booking offices, footbridge, overbridges. All these needs to be visibly delineated to minimise the risk of undertaking distributes.	Immediately report any damage to 1) threatened sp 2) retained trees or trees that have been trimmed or removed without approval, and all work to stop	 Ihreatened sp been trimmed o work to stop
	investorial and	

All	γVII	SS	SS	SS		dWS	Resp	All			1	a	Αll		SS				EA/	S					
If animals are encountered, leave them alone and contact Site Supervisor and Environmental Advisor.	Protection in age some the place for any threatened somewise.	Modify the route of trenching to avoid any damage to trees and tree roots.	All stockpiles must be located outside of Tree Protection/Drip Zone	Soil with weed material be removed prior to any	movement off site. To reduce the spread of weeds no soil in to be transported into the works areas. Ensure that all machinery, vehicles and equipment are free of	weed material before entering and exiting the works. areas. Waste and Codil - Appendix D. Engineers and Proportions CEMD	TOTAL END TO THE TOTAL END TO THE TOTAL END TO THE TOTAL END	Waste disposal locations and applicable EPLs are to be identified more to disposal and are subject to Bowner	approval prior to removal from site. – HOLD POINT All netyclable waste would be recycled where possible.	Material or spoil that has the potential to contain assestor or other contaminants will be lested and will be managed by an antimortalistic interpret contraction as	required	All wastes will be removed from site at the completion of the project and will be tracked.	In accordance with CoA £40, the Unexpected Contaminated Land Procedure and Asbestos Finds	Procedure (refer Appendix B of CEMP) to be followed in the event of an unexpected find.	Any construction waste generated will be stored in bins: as appropriate.	Cover stockpiles with geofab or like material and secure the base to avoid ecosion and sediment controls.	CoA E73 - Any Items or infrastructure that are salvageable must be identified in the relevant CEMP Sub-	plan (Condition C3). Note: reuse of stems may include signal boxes, indicators, ballast or other rail infrastructure. These items should be offered to Sydney	CoA E74 - The importation of waste and the storage,	treatment, processing, reprocessing or disposal of such waste must comply with the Protection of the	environment Operations Act 1997, under the Protection of the Environment Operations (Waste) Regulation 2014, and orders or exemptions made under the regulation.	CoA E75-Waste must only be exported to a site licensed	by the LPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in	accordance with a Resource Recovery Exemption of Order issued under the Protection of the Environment	Operations (waste) Regulation 2014, or to any other place that can lawfully accept such waste. Cod FTG - All waste must be classified in accordance with
					Resp	SS /	EA	EA		7	/55	ď					SS	EA							SS
T T T T T T T T T T T T T T T T T T T	ure	alor	zone, d and		dures CEMP	paved	ming to	for les	r to amy and any	rtaken	4	ssary	getation	forest pen	Box)	on site,	ould be dy	during otential		jos	hal	ected	9	alfron	species

REMIN WM2 - A recycling target of at least 90 per cent	ast 90 per cent	۱
would be adopted.	o secondania	
with the spoil management hierarchy.		
REMIN WM4 - Target 100 per cent reuse of reusable spoil	e af reusable	55/
Traffic		
	Jehting)	
Settion S of CEMIF Control/Mitigation		Resp
Manage traffic in accordance with mitigation measures	ation measures	125
from Traffic Management Plan.		PM
Obtain Road Occupancy License as when required. Implement Traffic Controls as per conditions of approval	n required. bons of approval	S PR
of TCF by the relevant council. All vehicles to enter rail corridor from designated access	esignated access	Ψ
points on site.		
Pedestrian or cyclist access will be maintained in public	fained in public	
spaces or redirected as appropriate.		
Chemical, Fuel Storage and USE		Bach
No chemicals or fuel required to be stored onsite	red onsite.	ΑII
Any required chemicals on site must be verified and	verified and	WHS
registered in SDS and SDS kept on site.		/88
Place spill kits in compound and portable spill kits in vehicles	e spill kits in	25
Refueling to occur in designated/approved area only with spill tray, absorbent pads, socks placed	wed area only aced	
All plant and machinery to be daily checked (pre-starts)	ked (pre-starts)	
to ensure it reaxibly on, rule occurrer liquids. Imported Material	IIDS:	
Contrel/Mitigation	200	Resp
All imported material will be sourced from a licensed	om a licensed	ηď
supplier with ansite storage to only accur with controls in place.	ur with controls	
No Ga Zone		9
Control/Mingation	100000000000000000000000000000000000000	Resp
An construction activities will be restricted to the project boundary. Any activity outside the project boundary must be approved prior by SM /ER	ect boundary	1
		9
Overal scope of Works as per Preferred Project. Volume 1 June 2018	Works	N N
Station Works	Location/Feature	
The existing entrance would be retained and upgraded	Entry/Exit	
Existing heritage listed platforms re- levelled.	Heritage - Platforms	· w
Retain the existing heritage building	Heritage - Car Park	-
within car park to the north of the station.	pullqing	
The existing heritage listed platform.	Heritage - Booking	500
building retained and repurposed.	Office & Platforms	



SMSU6: ENVIRONMENTAL CONTROL MAP - BELMORE

Station Area	Location/Feature
Existing bus stops in vicinity retained.	Bus stop
New taxis and kiss and ride facilities would be provided on Jobutk . Avenue	New facilities – taxis, kiss ride
New accessible parking spaces would be provided in the Jobutk . Avenue car park.	Parking - New
Retain existing parking along Redman Parade.	Parking – existing
New bike area provided within Joburk, Avenue car park	Bike area - new
Retain existing bike parking on Burwood road to the north of the station entrance.	Bike area - existing

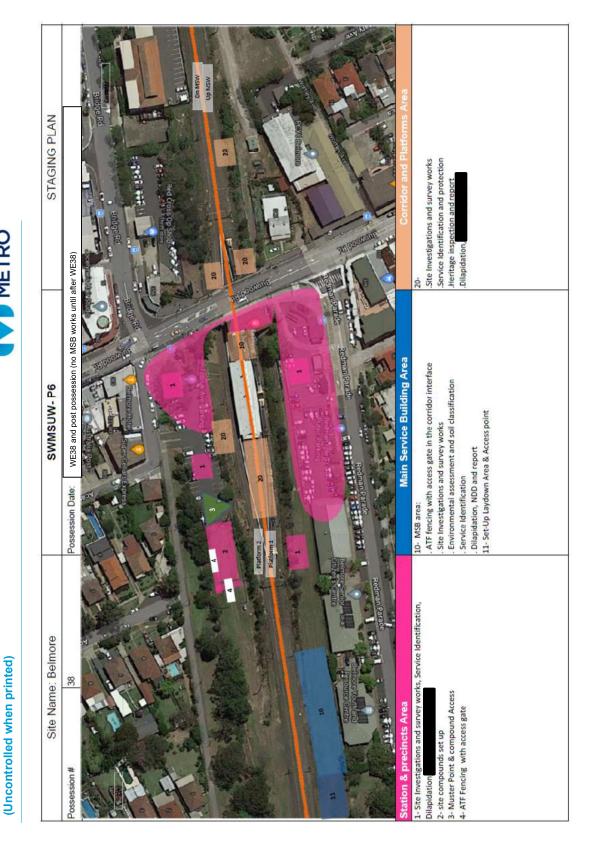
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Appendix 1.1: Station staging diagrams







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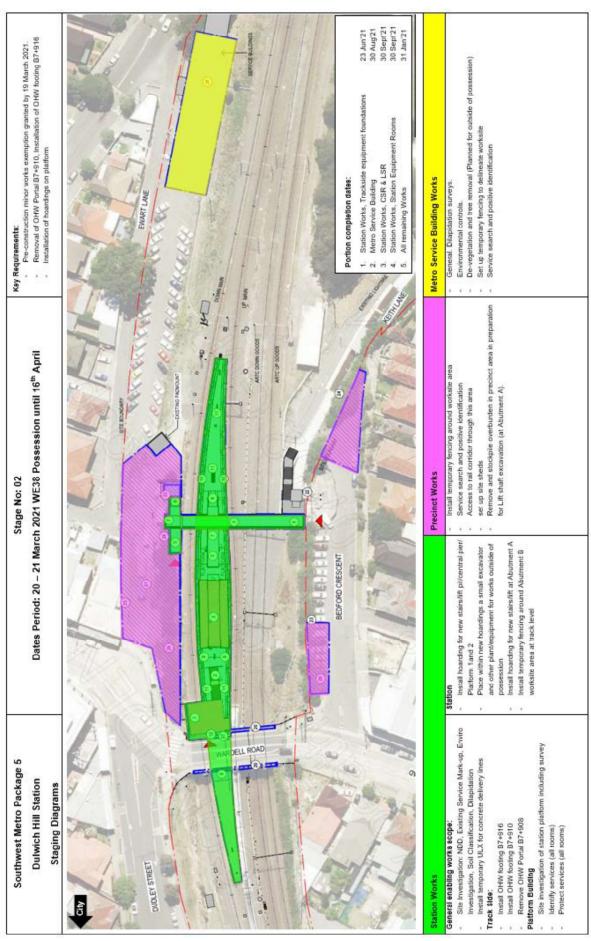
(Uncontrolled when printed)



BOUNDARY UP 23 Jun 21 30 Sept 21 30 Sept 21 30 Oct 21 31 Jan 21 Compound Area Pre-construction minor works exemption granted by 19 March 2021, Demo of existing buildings under MSB footprint (post WE38) Station Works, Station Equipment Rooms Install environmental controls (rail side) Station Works, Trackside equipi Station Works, CSR & LSR MSB building site hoarding on rail side Sydney Trains T-16 Possession Planning Planning Approval Conditions Contract requirements General Weekend Possession Scope: Metro Service Building Works (MSB) MSB Portion Completion Dates: Metro Service Building All remaining Works Key Requirements: Dates Period: 20 - 21 March 2021 WE38 Possession until 16th TO SHORM Stage No: 02 April Precinct Works 000 1000 Station Platform Building Works: Install temporary works for Identify & Protect Services LUANIANE Trackside Equipment's Install hoarding Southwest Metro Package 5 protection Staging Diagrams Campsie Station TERMSH SIMABE Site Investigation - Dilapidation Site Investigation - Soil classification Site Investigation - Heritage / Enviro Site Investigation - Survey works Site Investigation - NDD works Service Identification (all areas) Concourse Building Works: - Erect temporary hoarding to commence Demolition investigation tation Works SOUTH PARADE NORTH PARADE General







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Hurlstone Park Station Dates Period: 20 – 21 March 2021 WE38 Possession until 16th April











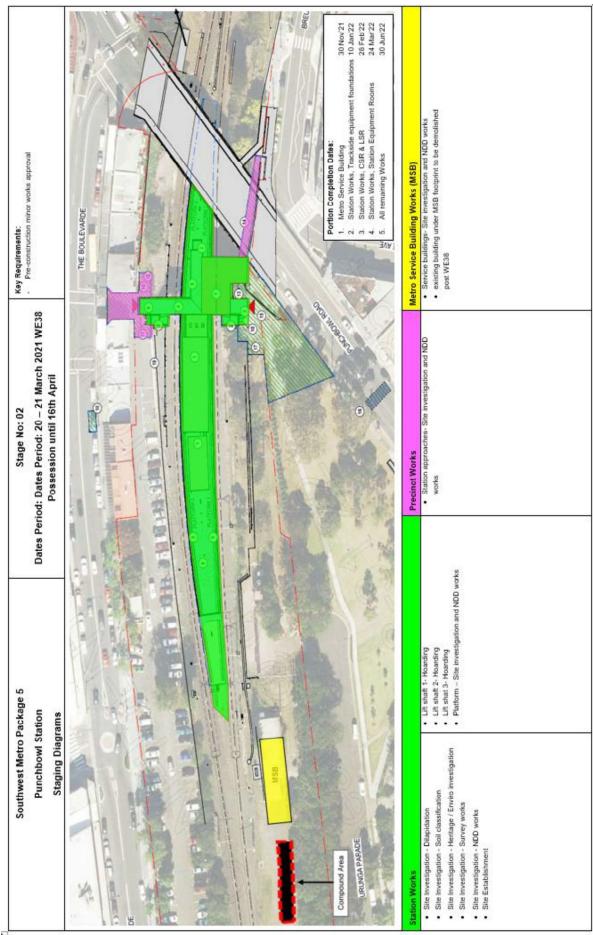
Dilapidation & Condition Surveys (Track/Platforms & Bridge)

6 Piling pad post grubbing (post WE38) Temporary access road (post WE38)

3 Vegetation & Tree Removal (WE38), grubbing (post WE38) 2 Potholing to identify location of existing services & utilities

4 Installation of Timber hoardings and/or ATF







Appendix 1.2: Environmental risk assessment

This appendix includes a risk assessment for the Project. All relevant environmental issues have been assessed in accordance with the table

Risk Assessment Rankings:

- >31 Very High;
- 22 to 30 High;
- 11 to 21 Medium; and
- 1 to 10 Low.

Issues or activities that represent a Very High risk after the application of control measures are not to be undertaken.

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Formating the project planning approval and statutory documentation for requirements relevant to the Project. Works delayed, works delayed, requirements relevant to the Project. Identify and implement approval prosecution, poor community relations and PRAPs Community relations and repulsional community relations and repulsional loss. Establish a register of approvals, incenses and permits. Establish are obe implemented from the Community in relation to upcoming activities that may result in the community in relation to upcoming activities that may result in concern. Militation measures as per the CNVIS and NWMP are to be implement the COMPS and NWMP are to be implement the COMPS. Establish a register of approvals, incenses and permits. Militation measures as per the CNVIS and NWMP are to be implement the COMPS. White the complaints in accordance with Sydney Metro requirements and implement the COMPS. Consult with the community in relation to upcoming activities that may result in concern. Provide periods of respite for high noise generaling activities that may result in concern. Provide periods of respite for high noise generaling activities mitigation measures during entire project. Noise efficient equipment to be used on site. Noise efficient equipment to be used on site. Noise efficient equipment noise mitigation strategies for L2 in mplement noise mitigation strategies for L11 in provide periods of respite to the provide periods of the provide periods of the provide mitigation strategies for L11 in provide periods of the provide mitigation strategies for L11 in provide periods of the period of the periods of the period		Potential	Initial Rating	ating	ä		Res	Residual Rating	-	
Works delayed, infingaments, prosecution, poor and statutory decumentation for requirements relevant to the Project, infingaments, prosecution, poor and statutory and implement approval plans and ERAPs. Subplans and implement requirements from the CeMP, subplans and implement requirements from the Community relations and implement requirements from the Comfract. Establish a register of approvals, licenses and permits. Bisturbance to Respond to community enquires and complaints in accordance with Sydney Metror requirements and implement the Consult with the community in relation to regidents or neighbouring activities that may result in concern. Potential for Consult with the community in relation to presidents or complaints. Potential for Project, Identify and implement approach to concern. Bisturbance to Respond to community in relation to regidents or regidents or complaints. Potential for concern. Provide periods of respite for high noise generating advities. Apply noise mitigation measures during entitie project. Disturbance to Respond to community in relation to residents or site. Potential for Consult with the community in relation to regidents or respite for high noise generating advities. Apply noise mitigation strategies for Lin Insidential control or the used on site.	Aspect	Impact	L×	O	KISK	COLLICO Medsures	L×	ပ	Y SY	Management of Residual Risk
Works delayed, infinigements. Works delayed, infinigements. For and statutory documentation for requirements with the Project. Identify and implement approval requirements within the CEMP, sub-plans and ERAPs and requirements from the CEMP, sub-plans and implement requirements from the Community relations and implement requirements from the Contract. Establish a register of approvals. Establish a register of approvals. Icenses and permits. Consult with the community in relation to protein a concern. Disturbance to register of approvals. Consult with the community in relation to upcoming advirties that may result in concern. Monitor noise for compliances at the works progress at receiver locations. Potential for companing advirties. Provide periods of respite for high noise generaling advirties. Apply noise mitigation measures during entire project. Noise efficient equipment to be used on site. Disturbance to service and community in relation to respect to thigh noise generaling advirties. Apply noise mitigation strategies for 11 in protein content.	Approvals and Licensing									
Disturbance to residents or omplaints. Disturbance to regime to be implemented Respond to community enquiries and complaints in accordance with Sydney Metro requirements and implement the OCCS. Consult with the community in relation to upcoming activities that may result in concern. Potential for concern. Potential for works progress at receiver locations. Provide periods of respite for high noise generating activities. Provide periods of respite for high noise generating activities. Apply noise mitigation measures during entire project. Noise efficient equipment to be used on site. Implement noise mitigation strategies for 11 in project.	Not identifying approvals, licenses or permits required and proceeding without them	Works delayed, infringements, prosecution, poor community relations and reputational loss.	F4	Ë	17	Review the project planning approval and statutory documentation for requirements relevant to the Project. Identify and implement approval requirements within the CEMP, subplans and ERAPs Check contract documentation. Identify and implement requirements from the Contract. Establish a register of approvals, licenses and permits.	L5	ឌ	د	Maintain Compliance Risk Matrix Undertake environmental audits as per Section 3.9 of the CEMP
Disturbance to residents or complaints. Disturbance to complaints and implement noise mitigation strategies for complaints. Disturbance to complaints. Disturbance to complaints. Disturbance to complaints. Disturbance to complaints and implement noise mitigation strategies for complaints. C5 12 12 12 12 12 12 12 13 12 13 12 13 13 13 13 13 13 13 13 13 13 13 13 13	Noise		-					•		
S Disturbance to L2 C5 18 Implement noise mitigation strategies for L3 C4 11 COHW.	Noise from general construction activities resulting in impact to residents	Disturbance to residents or neighbouring businesses. Potential for complaints.	2		6	Mitigation measures as per the CNVIS and NVMP are to be implemented Respond to community enquiries and complaints in accordance with Sydney Metro requirements and implement the OCCS. Consult with the community in relation to upcoming activities that may result in concern. Monitor noise for compliance as the works progress at receiver locations. Provide periods of respite for high noise generating activities. Apply noise mitigation measures during entire project. Noise efficient equipment to be used on site.	ឡ	C2	12	Noise performance will be continually monitored as per the requirements of the NVMP. The Sydney Metro Construction Noise and Vibration Strategy is to be implemented
neignbouring	Noise during works required to be undertaken out of	Disturbance to residents or neighbouring	77		18	Implement noise mitigation strategies for OOHW.	L3	22	-	Noise performance will be continually monitored as per the requirements of the NVMP.

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Aspect	Potential Environmental	Initial Rating	ating	Risk	Control Measures	Res	Residual Rating	Risk	Management of Residual Risk
	Impact	L×	O			L×	ပ		
standard construction hours	businesses with potential for complaints.				Monitor noise for compliance to project goals. Control Measures as per the NVMP are to be implemented.				The Sydney Metro Construction Noise and Vibration Strategy (CNVS) is to be implemented
Vibration									
Vibration intensive activities undertaken on the site such as hammering, vibratory rolling, etc (noted not occurring but monitoring to be conducted)	Disruption, annoyance and nuisance to residents. Potential damage to adjacent residential and commercial residences and structures. Disruption to businesses as a result of vibration nuisance	F3	C5	2	Mitigation measures as per the NVMP are to be implemented. Determine vibration limits and structure/receiver offset distances. Consult with potentially affected parties prior to commencement of works on their upcoming activities that may be impacted by construction vibration. Ongoing vibration monitoring during vibration intensive works.	41	S	۲	Standard and additional mitigation measures for sensitive receptors around the Project works will be applied as per the CNVS, NVMP and the CNVIS.
Water Quality, Erosion and Sedimentation	nd Sedimentation								
Sediment laden runoff from construction works leaving site	Degradation of local watercourses. Increased turbidity in local water ways resulting in impact on aquatic life. Fines for sediment escaping site.	L 4	2		Mitigation Measures as per SWMP and any ESCP to be implemented (appendix 1) Install erosion and sediment controls within the project area. Ensure measures are inspected and maintained as the works progress and also prior to and post rainfall events. Provide training and awareness on the need to prevent pollution. Relevant people to undertake Erosion and Sediment Control training.	ऽ	2	ω	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Stockpiling of vegetation and topsoil	Wind and water erosion causing	L4	ຮ	17	Develop Environmental Control Maps to show stockpile areas.	L5	2	ω	Implement stockpile controls prior to the work commencing. Undertake regular inspections

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	Potential	Initial Rating	2			Res	Residual		
Aspect	Environmental Impact	L×		Risk	Control Measures	Ra L x	Rating c	Risk	Management of Residual Risk
	weed/seed dispersion offsite. Location of stockpiling next to waterways causing weeds/seeds to disperse from construction site.				Utilise appropriate locations for stockpiling (away from waterways, watercourses, drains where feasible and reasonable). Designated vegetation stockpiling areas. Minimise stockpiling / Use temporary stockpiling Cover stockpiles if left for extended periods				of work areas pre, during and after works to ensure controls are in good condition.
Non-compliant water from construction works discharged from site	Non-compliant water entering stormwater system waterways (i.e. polluting - not compliant with discharge criteria).	24 O	22	_	Environmental Manager to approve all water discharges from site. Induction and toolbox talks Toolbox training on site procedures for water discharge Educate site staff on requirements and consequences of prosecution	L5	2	ω	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Waste disposal during site establishment / early works	Incorrect disposal of waste, further costs incurred for classifications and disposal, fines may be issued.	۳ ت	C5 12	OI.	Implement the controls within Appendix E - Procedure 4: Waste and Spoil of the CEMP (noted as in draft for package 5) Provide facilities on site for source separation and recycling. Ensure accurate waste records are retained. Removal of wastes from the site would only be undertaken by a licensed contractor as required by the POEO Act and with appropriate approvals, if required, for contaminated materials, etc. All material to be recovered off-site to be appropriately classified in accordance with the Resource Recovery	7	S	~	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Monitor and ensure reporting of all movements of waste form the worksite.

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Sydney

Aspect	Potential Environmental	Initial Rating	Risk	Control Measures	Res	Residual Rating	Risk	Management of Residual Risk
	Impact	L×			Lx	ပ		
				All material that requires off-site disposal to be appropriately tested and classified against the Waste Classification Guidelines (NSW EPA, 2014)				
Earthworks spoil disposal	Incorrect classification of waste (spoil) resulting in incorrect / illegal disposal/reuse.	C3 C5	2	Inductions, toolbox talks and training on recycling facilities and waste segregation practices. Separation of waste on site. Tracking of disposal processes. All contamination hotspots would be clearly marked in the field (where possible). Hotspots will be shown within contamination mapping and will be included in the Permit to Disturb process.	47	C5	۲	Regular inspections of work areas Monitor and ensure reporting of all movements of waste from the worksite
Washout of concrete in undesignated areas.	Sediment laden/alkaline water polluting surrounding stormwater system /watercourses.	22	9	Concrete washout areas clearly marked on Environmental Control Maps and delineated. Inductions on designated concrete washout areas. Subcontractor's agreements to include project compliant waste management principles.	L5	2	ω	Regular inspections of concrete washout areas and controls
Contamination		-						
Management of contaminated or untreated materials	Non-compliant material and contaminated water entering surrounding waterways. Decrease in health of nearby ecosystems.	E1 22	6	Implement contamination management procedures from within SWMP (noted as in draft). Identify any contamination hotspots and incorporate procedures for these locations into construction documentation. Apply the unexpected finds procedure within the SWMMP.	7	2	7	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Monitor and ensure reporting of all movements of waste from the worksite.

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Aspect	Potential Environmental	Initial Rating	Risk	Control Measures	Res	Residual Rating	Risk	Management of Residual Risk
	Impact	L× C			L×	ပ		
				Induct personnel on unexpected finds procedure.				
Potential for discovery of unexpected contaminated spoil during site establishment .	Health effects resulting from airborne contamination, e.g. asbestos. Complaints received from odours released during excavations. Classification of spoil is changed and disposal options altered, costs incurred associated with disposal of higher classification of waste.	44 20	=	If contaminated soil is encountered, all works are to stop in the vicinity of the find and investigations commence. Unexpected finds procedure within the SWMP to be implemented. Induct personnel on location, type, nature, concentration of contaminants on site if found.	L5	2	∞	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Complete regular toolbox talks on how to manage unexpected finds.
Encountering asbestos / contaminated material on site	Transfer of material into previously uncontaminated area (outside work site) causing new contamination.	L3 C4	9	Inspections of excavated and filled surfaces would be made during Construction to determine the presence of visible asbestos. Conduct further site investigations to determine the presence and extent of contamination prior to Construction works commencing. Contaminated soils would not be stockpiled on the structural fill layer or formation layers to avoid cross contamination.	4	2	-	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Complete regular toolbox talks on how to manage unexpected finds.
Hazardous Materials								
Storage of hazardous substances, leaking plant and equipment and spillage from refuelling.	Localised ground contamination / pollution of stormwater and requiring clean-up and/or receiving	£1 24	16	Induction, toolbox talks and training on appropriate handling and storage of liquids. All storm water drains should be identified prior to works and protection installed.	L5	2	ω	Regular inspections of storage areas

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Management of Residual Risk			Regular inspections of works site to ensure all controls are in good condition and working.
- Xi	20		
			
Residual Rating			2
	L×		7
Control Measures		Storage areas to be away from sensitive areas and appropriately bunded. SDS approved prior to bringing hazardous substances on site including risk assessment. Environmental Control Maps show storage locations and associated controls e.g. spill kits, etc. Training in use of spill kits. Contingency plans would be developed to deal with any spills which might occur during Construction. Clearly label containers. Regular auditing and inspection of storage areas and materials. Make storage areas restricted access areas. Reduce/eliminate need for hazardous substances. Ensure all work sites are secure before leaving the site. All liquids i.e. paint etc. are to be securely locked away at the end of each day	All storm water drains should be identified prior to works and controls implemented. Appropriate bunding/storage of substances. Toolbox on site procedures for sediment controls and chemical storage. Educate site staff on requirements and consequences of prosecution.
S. S	NO.		16
ating	ပ		75
Initial Rating	L×		13
Potential Environmental	Impact	fines. Risk of igniting volatile substances. Unauthorised access to site / potential vandalism/damage leading to pollution.	Fuel contaminated runoff entering stormwater or waterways (i.e. polluting – not compliant with discharge criteria).
Annect	100 CC		Fuel contaminated runoff from construction works leaving site





	Management of Residual KISK	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Provide frequent toolbox talks on Unexpected Heritage Finds Procedure	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Provide frequent toolbox talks on managing change.
i	X SX	=	7-
Residual	ပ	2	ឌ
Re	L×	4	4
	Control Measures	Implement the mitigation measures within the HMP. General inductions toolbox training on heritage management protocols. Label any known heritage items on Environmental Control Maps. If suspected heritage item encountered. Works to stop immediately and implement the Sydney Metro Unexpected Heritage Finds Procedure (refer to HMP) and appendix 2 of this document. Clearly highlight no-go zones on the ECM and communicate requirements to construction personnel during pre-start briefs, inductions and tool-box talks.	Implement the mitigation measures within the HMP. General inductions toolbox training on heritage management protocols. Label any known heritage items on Environmental Control Maps. No subsurface impact of removal of asphalt without prior heritage and environmental approval (Belmore). Work within the safe working distances nominated in the NVMP. Undertake vibration compliance monitoring as per the NVMP. Clearly highlight no-go zones on the ECM and communicate requirements to construction personnel during pre-start briefs, inductions and tool-box talks. Demarcation of worksites and communicate it clearly with all construction personnel.
i	XISK SK	6	42
Rating	O	2	ឌ
Initial Rating	L×	F3	្ជ
Potential	Environmental Impact	Work delays, additional studies, approvals required, damage to heritage item.	Damage to heritage fabric of heritage items by Project works
	Aspect	Unexpected heritage items encountered.	Impact to Heritage Items



Aspect	Potential Environmental	Initial Rating	ating	Risk	Control Measures	Residual Rating	la C	Risk	Management of Residual Risk
	Impact	L×	ပ			L×	ပ		
					The method for the demolition of existing elements at the Project sites would be developed to minimise direct and indirect impacts to adjacent and / or adjoining heritage items. Note: demolition extends as far removal of minor volumes of asphalt for hoarding posts. No impacts to any movable heritage considered as part of the scope of this application				
Biodiversity						-			
Loss, damage or injury to endangered or threatened species or localised trees within compounds.	Removal, death, damage or injury to endangered or threatened species by plant and equipment	L	ొ	17	Implement the controls within Appendix E – Procedure 1: Biodiversity of the CEMP (noted as in draft) All personnel attending site will be advised of controls and management during the onsite induction. Toolbox talks will be carried out prior to ground disturbance /site clearing works to ensure onsite personnel are made aware of potential loss of endangered species. If vegetation, other than grass and weeds, needs to be trimmed or removed, further assessment would be undertaken in accordance with the CEMF and CoA. If trees require trimming or removal, the requirements of CoA E5 would be implemented. If threatened flora or fauna species are identified on site, work in the vicinity of these species would stop immediately. (for the purposes of this application this specifically relates to the identified presence of the lbis and potential habitat trees) spotter/catcher/botanist/ ecologist to be present during fauna removal works in	C3		6	Implement Vegetation Removal Permit System. Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. All works at Hurlstone Park and Wiley Park must be conducted in accordance with Ecologist and Arborist advice as obtained for CoA E5 and REMM B2 and B6





	Management of Residual Risk									Undertake regular inspections of work areas	controls are in good condition.							Implement Vegetation Removal Permit System.
ä	X X									7	=							5
Residual Rating	ပ									5	5							ొ
A A	L×									_	5							L5
	COURTOI Measures	accordance with ecologist advice and mitigation measures.	Implement the controls within Appendix E – Procedure 1: Biodiversity	Implement the mitigation measures within the SWMP.	Inductions and toolbox training on erosion and sediment controls.	Where possible works to be staged so environmental controls can be implemented effect cleanance works	יייי אייייי אייייייי איייייייייייייייי	If vegetation, other than grass and weeds, needs to be trimmed or	removed, further assessment would be	CEMF and CoA.	If trees require trimming or removal, the requirements of CoA E5 would be implemented.	A Tree Report is to be prepared for trees to be removed or pruned.	Approved Erosion and Sediment Control Plans in place prior to starting works.	Where applicable, mature trees and other native vegetation to be retained	would be clearly delineated, with all Construction activities excluded from	these areas.	Pre clearing checklist to be completed before any clearing of vegetation.	Implement the controls within Appendix E – Procedure 1: Biodiversity
ä	ASIN									4	2							17
tating	ပ									5	5							C3
Initial Rating	L×									~	3							L4
Potential	Impact						Erosion of soils,	uncontrolled runoff, sediment deposited	into surrounding	vegetated areas and water courses, and	invasion of weeds. Wrong vegetation	Potential for injury to native fauna.						Removal, death, damage or injury to endangered or
	Aspect									Clearing and grubbing	work site.							Loss, damage or injury to endangered or threatened species.

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Aspect	Potential Environmental	Initial Rating	Risk	Control Measures	Residual Rating		Risk	Management of Residual Risk
	Impact	Lx C			L×	ပ		,
	threatened species by plant and equipment			All personnel attending site will be advised of controls and management during the onsite induction.			2 11 0	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
				Toolbox talks will be carried out prior to ground disturbance /site clearing works to ensure onsite personnel are made aware of potential loss of endancered				
				species. If vegetation, other than grass and				
				weeds, needs to be trimmed or removed, further assessment would be undertaken in accordance with the CEMF and CoA.				
				If trees require trimming or removal, the requirements of CoA E5 would be implemented.				
				If threatened flora or fauna species are identified on site, work in the vicinity of these species would stop immediately.				
				spotter/catcher/botanist would be engaged to survey the				
Air Quality								
				Implement the controls within Appendix E – Procedure 3: Air Quality from the CEMP (noted as in draft)				
General Construction	Dust activity in close proximity to			Toolbox training on dust and air quality Management.				Undertake regular inspections of work areas
works; site establishment	residential and commercial premises, complaints received	L3 C5	7	Provide dust mitigation measures through water sprays/misting as required.	L4 C5			pre, during and after works to ensure controls are in good condition.
				Cover stockpiles when not in use. Erosion and Sediment Control Plans approved before works commence.				





111 5 7 6 6 7 7 9 7	Emissions resulting in air pollution. Loss of parking availability to adjacent residential and commercial properties could result in community complaints.	L3 C5 L3 C5	CS CS	25 ST	Control Measures Inductions and toolbox training on dust and air quality management. Well maintained plant/ equipment and prestart checks and servicing. Non-compliant vehicles removed from site / repaired. Community notifications via monthly notifications and WMS boards / signage and consultation with adjacent businesses (localised cafes for example) in accordance with the OCCS. Additional consultation required with CCBC for the use of the Floss Street Carpark to satisfy REMM TC4, TC5 and CoA C51 – NO USE UNTIL. CONSULTATION COMPLETE Site vehicles shall be parked within the rail corridor and not affect public parking area where possible. Develop and implement CTMP (draft) / Traffic control procedures TCP's	Resignation 1	Residual X C C C C C C C C C C C C C C C C C C	Risk 7	Management of Residual Risk Review plant check list prior to operating on site. Undertake verification checks as required. Complete relevant consultation with respect to Hurlstone Park. Complete regular toolbox talks on how to minimise impacts in relation to traffic. Undertake regular inspections of worksite and adjacent streets. Supervisor and traffic controller to enforce traffic management requirements
Disturbance to lo residents resultin complaints being made, limited access, potential delays at local ro access points resulting in complaints.	Disturbance to local residents resulting in complaints being made, limited access, potential for delays at local road access points resulting in complaints.	ៗ	C5	27	undertaken outside of peak periods where possible. Site vehicles shall be parked within the rail corridor and not affect public parking areas. Scheduled road movements shall be minimised where possible. Oversized deliveries would be undertaken in accordance with the requirements of NSW Police or Roads and Maritime Services.	4	C5	۷	Complete regular toolbox talks on how to minimise impacts in relation to traffic. Undertake regular inspections of worksite and adjacent streets.

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	Potential	Saito Loitial			Residual	dual		
Aspect	Environmental	Rati	Risk	Control Measures	Rating	ing	Risk	Management of Residual Risk
	Impact	C ×			Ľ	ပ		
				Approved Traffic Management Plans / TCP's in consultation with relevant authorities.				
				Detour routes to be advertised/ notified. Approved access routes, detailed Traffic Control Plans to be implemented as required.				
				Clear notifications / detour and directional signage				
				Deliveries of plant and materials shall be undertaken outside of peak periods where possible.				
				Site vehicles shall be parked within the rail corridor and not affect public parking areas.				
Management of heavy	Complaints from sensitive receivers			Scheduled road movements shall be minimised where possible.				Complete regular toolbox talks on how to
vehicles / access routes.	due to increased level and frequency of noise.	L3 C5	75	Oversized deliveries would be undertaken in accordance with the requirements of NSW Police or Roads and Maritime Services.	4	C5	2	minimise impacts in relation to traffic. Permits from local council and/or RMS
				Designated access routes.				
				Approved Crivir. Community Notifications.				
				Pedestrian management with traffic controller in place where required.				
	Un-approved deliveries resulting			Personnel training of noise awareness to community included in induction and toolboxes.				Delivery drivers provided with haulage routes
Truck deliveries out of normal working hours	in non-conformance with project	L3 C5	12	Induction on Construction Hours for deliveries.	L4	C5	7	Complete regular toolbox talks on how to
	requirements.			Communication of delivery times to suppliers.				minimise impacts in relation to traffic.

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Undertake regular inspections of work areas Undertake regular inspections of work areas Management of Residual Risk pre, during and after works to ensure controls are in good condition. pre, during and after works to ensure controls are in good condition. Service searching Permit to Disturb Risk / ω ∞ Residual Rating S_2 2 2 × 7 2 2 The work area shall be maintained in an Any ancillary facility not identified in the project Planning Approval, must comply (noted as in draft) and Sub-plans, CoA, shall be directed towards the work area environmental impacts are adequately Code of conduct / selection criteria in approved hours as much as practical. Use of site compounds would comply Develop and implement the Utilities Management Strategy in accordance -ighting required during night works Out of hours works approval where Community Notifications on project with the requirements of the CEMP and away from adjacent sensitive Planning and staging of works in with the relevant CoA (A16-A18). Approved traffic/access routes. **Control Measures** REMM and CEMF to ensure activities occurring locally. place for subcontractors. orderly manner managed. receivers required. Risk 7 7 9 Initial Rating ပ C_2 2 2 × Г3 7 Γ 3 -ighting towers used residential receivers potential complaints. aesthetic temporary during out of hours works may spill on and environmental **Environmental** nearby residents Noise impact to Service strike leading to altered during assessment of business and community / Surrounding construction surrounding Potential for Inadequate impacts to complaints. receptors. Appropriate selection and management of Plant and equipment the ancillary facilities Utility Management construction sheds **Building Materials** Ancillary facilities Aspect Visual Amenity and storage Temporary Stockpiles containers movement Lighting Utilities

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Residual Rating Risk Management of Residual Risk L x C		Detailed Site Survey management	ager f	nth 1	and			nity	>.:	Źu			by	
Control Measures		with the Utilities Management Framework	Engage a Utilities Coordination Manager (UCM) to oversee the coordination of	utility works across the project and with third part service providers. The UCM	will collaborate with the Community and Stakeholder Manager the Place	Manager and, where required, the	Community Complaint Mediator to	mitigate impacts to the local community	during utility works and to resolve any	community complaints relating to utility works.	Implement a Permit to Disturb	Induction and toolbox talks	Detailed Site Survey to be managed by	an appropriately qualified surveyor.
Risk														
Initial Rating	Lx C													
Potential Environmental	Impact	environmental degradation												
Aspect														

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Sydney Metro Consequence Criteria

			ENTERPISE RISK	RISK CONSEQUENCES		
	C6 Insignificant	C5 Minor	C4 Moderate	C3 Major	C2 Severe	C1 Catastrophic
Environment	No appreciable changes to environment and/or highly localised event.	Change from normal conditions within environmental regulatory limits & environmental effects are within site boundaries.	Short-term and/or well- contained environmental effects. Minor remedial actions probably required.	Impacts external ecosystem & considerable remediation is required.	Long-term environmental impairment in neighbouring or valued ecosystems. Extensive remediation required.	Irreversible large-scale environmental impact with loss of valued ecosystems.

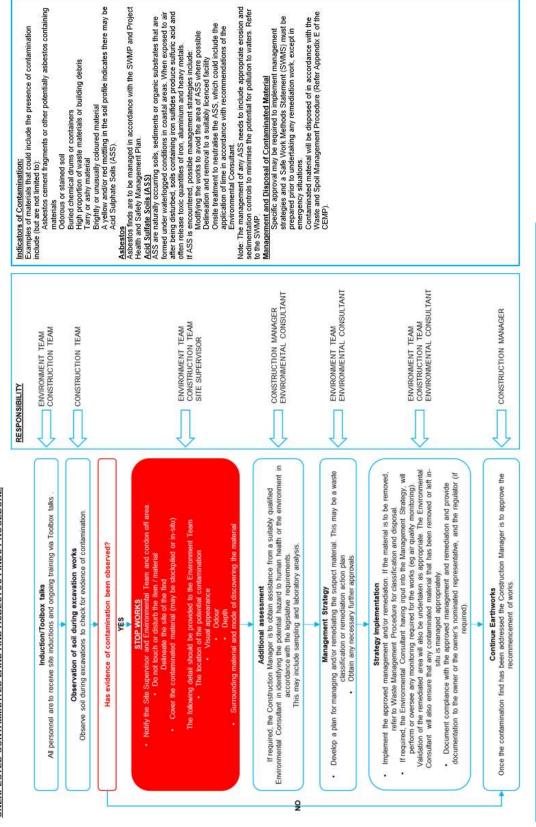
Sydney Metro Likelihood Criteria and Risk Matrix

		-						
	Cd	Catastrophic Transformational for opportunities	88	38	33	30	26	21
Consequences	C2	Severe	25	5	27	25	19	15
	ເລ	Major	32	28	24	11	13	5
Conse	55	Moderate	29	23	16	ž.	ω.	ro.
	CS	Minor	22	18	12	1	4	2
	95	Insignificant	20	41	თ	φ	en:	-
			5	2	ឌ	7	5	97
			Almost certain	Very Likely	Likely	Unlikely	Very Unlikely	Almost Unprecedented
	Repeated	How often?	10 times or more every year	1-10 times every year	Once each year	Once every 1 to 10 years	Once every 10 to 100 years	Less than once every 100 years
				Æ	oneupen=			
	One off event	How likely?	Expected to occur frequently during time of activity or project. Greater than a 90% chance of occurring.	Expected to occur occasionally during time of activity or project. A 75-90% chance of occurring.	More likely to occur than not occur during time of activity or project A 50-75% chance of occurring.	More likely not to occur than occur during time of activity or project. A 25-50% chance of occurring.	Not expected to occur during the time of activity or project. A 10-25% chance of occurring.	Not expected to ever occur during time of activity or project. Less than 10% chance of occurring.
				, A	Illidadorq			



Appendix 2: Unexpected finds procedure (contamination/ asbestos)

UNEXPECTED CONTAMINATED LAND AND ASBESTOS FINDS PROCEDURE





Appendix 2.1: Unexpected finds procedure (heritage / archaeological)



Sydney Metro Unexpected Heritage Finds Procedure

[SM-18-00105232]

Sydney Metro Integrated Management System (IMS)

Applicable to:	Sydney Metro
Document Owner:	Author/Document owner
System Owner:	IMS element owner (generally a member of the Executive)
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1. Purpose

This procedure is applicable to the Sydney Metro program of works including major projects delivered under Critical State Significant Infrastructure Planning Approvals (CSSI), early CSSI minor and enabling works and works that are subject to the NSW Heritage Act (1977) including s57/139 and s60/140 exemptions and permit approvals.

This procedure has been prepared for Sydney Metro programs to provide a method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during preconstruction (pre-Construction Heritage Manage Plan approval), construction phases (post Construction Heritage Manage Plan approval) and for works subject to the NSW Heritage Act (1977).

An 'unexpected heritage find' can be defined as any unanticipated archaeological discovery, that has not been previously assessed or is not covered by an existing approval under the Heritage Act 1977 (Heritage Act) or National Parks and Wildlife Act 1974 (NPW Act).

In NSW, there are strict laws to protect and manage heritage objects and relics. As a result, appropriate heritage management measures need to be implemented to minimise impacts on heritage values; ensure compliance with relevant heritage notification and other obligations; and to minimise the risk of penalties to individuals, Sydney Metro and its contractors. This procedure includes Sydney Metro's heritage notification obligations under the Heritage Act, NPW Act and the Coroner's Act 2009 and the requirements of the conditions of approval(CoA) issued by NSW Department of Planning and Environment.

Note that a Contractor must not amend the Sydney Metro Unexpected Finds Procedure without the prior approval of Sydney Metro.

It should be noted that this procedure must be read in conjunction with the relevant CCSI conditionals of approval (if applicable), the contract documents and other plans including the Sydney Metro Exhumation Management Plan and procedures developed by the contractor during the delivery of the Sydney Metro works.

1.1. Legislation that does not apply

The following authorisations are not required for Sydney Metro approved Critical State Significant Infrastructure (and accordingly the provisions of any Act that prohibits an activity without such an authority do not apply):

- Division 8 of Part 6 of the Heritage Act 1977 does not apply to prevent or interfere with the carrying out of approved State significant infrastructure.
- An approval under Part 4, or an excavation permit under section 139, of the Heritage Act 1977,
- An Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974.

This document provides relevant background information in Section 4, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices 1-6.



2. Scope

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

This procedure applies to:

 the discovery of any unexpected heritage item, relic or object, where the find is not anticipated in an approved Archaeological Assessment Design Report (AARD) or Archaeological Method Statements (AMS) that are prepared as part of the planning approval for that project.

This procedure must be followed by all Sydney Metro staff, contractors, subcontractors or any person undertaking works for Sydney Metro. It includes references to some of the relevant legislative and regulatory requirements, but is not intended to replace them. This procedure **does not apply** to:

- The discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with the Office of Environment and Heritage's (OEH) Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW 2010¹; an Aboriginal Heritage Impact Permit (AHIP) issued under the NPW Act; or a permit approval issued under the Heritage Act.
- the discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP; or an approval issued under the Heritage Act or CSSI /CSSD planning approval;

3. Definitions

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

	Definitions
AHIP	Aboriginal Heritage Impact Permit
Aboriginal object	An Aboriginal object is any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains. An Aboriginal object may include a shell midden, stone tools, bones, rock art, Aboriginal-built fences and stockyards, scarred trees and the remains of fringe camps.
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
CSSD	Critical State Significant Development
CSSI	Critical State Significant Infrastructure
EP&A Act	NSW Environmental Planning and Assessment Act 1979
Excavation	A person that complies with the Heritage Council of NSW's Criteria for Assessment of

¹ An act carried out in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* as published by the Department in the Gazette on 24 September 2010 is excluded from the definition of *harm* an object or place in section 5 (1) of the NPW Act.





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Director	Excavation Directors (July 2011) to oversee and advise on matters associated with historic archaeology. Note this applies to a specific project/program and requires consultation and/or approval by OEH.
Heritage Act	NSW Heritage Act 1977
NPW Act	NSW National Parks and Wildlife Act 1974
OEH	Office of Environment and Heritage
SM	Sydney Metro
Relic (non- Aboriginal heritage)	A relic means any deposit, artefact, object or material evidence that: a) relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and b) is of State or local significance. A relic may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse.
TfNSW	Transport for New South Wales
Work (non- Aboriginal heritage)	Archaeological features such as historic utilities or buried infrastructure that provide evidence of prior occupations such as former rail or tram tracks, timber sleepers, kerbing, historic road pavement, fences, culverts, historic pavement, buried retaining walls, cisterns, conduits, sheds or building foundations, but are also subject to assessment by the Excavation Director to determine its classification

4. Types of unexpected heritage items and corresponding statutory protections

The roles of project, field and environmental personnel (including construction contractors) are critical to the early identification and protection of unexpected heritage items.

Appendix 1 illustrates the wide range of heritage discoveries found on Sydney Metro projects and provides a useful photographic guide. Subsequent to confirmation of a heritage discovery it must then be identified and assessed by Excavation Director. An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Sydney Metro does not have approval to disturb² and/or have an existing management process in place.

These discoveries are categorised as either:

- (a) Aboriginal objects
- (b) Historic (non-Aboriginal) heritage items
- (c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below and is also addressed in the Sydney Metro Exhumation Management Plan).

4.1. Aboriginal objects

The NPW Act protects Aboriginal objects which are defined as:

² Disturbance is considered to be any physical interference with the item that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).

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

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

IMPORTANT!

<u>All</u> Aboriginal objects, regardless of significance, are protected under law.

If any impact is expected to an Aboriginal object, an AHIP is usually required from OEH Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location⁴. Assistance on how to do this is provided in Section 7 (Step 5).

4.2. Historic heritage items

Historic (non-Aboriginal) heritage items may include:

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

4.2.1. Archaeological relics

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

"any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance" 5.

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

IMPORTANT!

All relics are subject to statutory controls and protections.

If a relic is likely to be disturbed, a heritage approval is usually required from the NSW Heritage Council⁶. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location⁷.

4.2.2. Other historic items

Some historic heritage items are not considered to be 'relics', but are instead referred to as works, buildings, structures or movable objects. Examples of these items that may be encountered include culverts, historic pavements, retaining walls, tramlines, rail tracks, timber sleepers, cisterns, fences, sheds, buildings and conduits. Although an approval under the Heritage Act may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

³ Section 5(1) NPW Act.

⁴ This is required under section 89(A) of the NPW Act and applies to all Sydney Metro projects.

⁵ Section 4(1) Heritage Act.

⁷ This is required under section 146 of the Heritage Act and applies to all Sydney Metro projects.

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

4.3. Human skeletal remains

Also refer to Sydney Metro Exhumation Management Plan for a more detailed explanation of the approval processes.

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more. Depending on ancestry and context, different legislation applies.

As a simple example, a pre-European settlement archaeological Aboriginal burial would be protected under the NPW Act, while a historic (non-Aboriginal) archaeological burial within a cemetery would be protected under the Heritage Act. For a non-Aboriginal archaeological burial, the relevant heritage approval and notification requirement described in Section 3.1 would apply. In addition to the NPW Act, finding Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under section 20(1) of the Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth).

IMPORTANT!

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

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

However, where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the Coroners Act 2009 (NSW). Such a case would be considered a 'reportable death' and under legal notification obligations set out in section 35(2); a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old8 regardless of ancestry (i.e. both Aboriginal and non-Aboriginal remains). Public health controls may also apply.

Guidance on what to do when suspected human remains are found is provided in Appendix 5.

5. Legislative Requirements

Table 1 identifies some of the relevant legislation/regulations for the protection of heritage and the management of unexpected heritage finds in NSW. It should be noted that significant

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⁸ Under section 19 of the *Coroners Act 2009*, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

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penalties exist for breaches of the listed legislation as a result of actions that relate to unauthorised impacts on heritage items. Further, it is noted that heritage that has been assessed and is being managed in accordance with relevant statutory approvals(s) is exempt from these offences.

To avoid breaches of legislation, it is important that Sydney Metro and its contractors are aware of their statutory obligations under relevant legislation and that appropriate control measures are in place to ensure that unexpected heritage items are appropriately managed during construction. Contractors/Alliances will need to ensure that they undertake their own due diligence to identify any other legislative requirements that may apply for a given project.

Table 1 Legislation and guidelines for management of unexpected heritage finds

Relevant Requirement	Objectives and offences
Environmental Planning and Assessment Act 1979 (EP&A Act)	Section 115ZB Giving of approval by Minister to carry out a project.
Environmental Planning and Assessment Act 1979 (EP&A	Requires heritage to be considered within the environmental impact assessment of projects.
Act)	This guideline is based on the premise that an appropriate level of Aboriginal and non-Aboriginal cultural heritage assessment and investigations and mitigation have already been undertaken under the relevant legislation, including the EP&A Act, during the assessment and determination process. It also assumes that appropriate mitigation measures have been included in the conditions of any approval.
Heritage Act 1977 (Heritage Act)	The Heritage Act provides for the care, protection and management of heritage items in NSW.
	Under section 139, it is an offence to disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed, unless the disturbance or excavation is carried out in accordance with an excavation permit issued by the Heritage Division of the OEH.
	Under the Act, a relic is defined as: 'any deposit, artefact, object or material evidence that: (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b) is of State or local heritage significance.'
	A person must notify the Heritage Division of OEH, if a person is aware or believes that they have discovered or located a relic (section 146). Penalties for offences under the Heritage Act can include six months imprisonment and/or a fine of up to \$1.1million.

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Relevant Requirement	Objectives and offences
National Parks and Wildlife Act 1974 (NPW Act)	The NPW Act provides the basis for the care, protection and management of Aboriginal objects and places in NSW. An Aboriginal object is defined as: 'any deposit, object or material
	evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains'.
	An 'Aboriginal place' is an area declared by the Minister administering the Act to be of special significance with respect to Aboriginal culture. An Aboriginal place does not have to contain physical evidence of occupation (such as Aboriginal objects).
	Under section 87 of the Act, it is an offence to harm or desecrate an Aboriginal object or place. There are strict liability offences. An offence cannot be upheld where the harm or desecration was authorised by an AHIP and the permit's conditions were not contravened. Defences and exemptions to the offence of harming an Aboriginal object or Aboriginal place are provided in section 87, 87A and 87B of the Act.
	A person must notify OEH if a person is aware of the location of an Aboriginal object.
	Penalties for some of the offences can include two years imprisonment and/or up to \$550,000 (for individuals), and a maximum penalty of \$1.1 million (for corporations).

6. Unexpected heritage finds protocol

6.1. What is an unexpected heritage find?

An 'unexpected heritage find' can be defined as any unanticipated archaeological discovery that has not been identified during a previous assessment or is not covered by an existing permit under the Heritage Act. The find may have potential cultural heritage value, which may require some type of statutory cultural heritage permit or notification if any interference of the heritage item is proposed or anticipated.

The range of potential archaeological discoveries can include but are not limited to:

- remains of rail infrastructure including buildings, footings, stations, signal boxes, rail lines, bridges and culverts
- remains of other infrastructure including sandstone or brick buildings, wells, cisterns, drainage services, conduits, old kerbing and pavement, former road surfaces, timber and stone culverts, bridge footings and retaining walls
- artefact scatters including clustering of broken and complete bottles, glass, ceramics, animal bones and clay pipes
- Archaeological human skeletal remains.



6.2. Managing unexpected heritage finds

In the event that an unexpected heritage find (the find) is encountered on a Sydney Metro site, the flowchart in Figure 1 must be followed. There are eight steps in the procedure. These steps are summarised in Figure 1 and explained in detail in Table 2.

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

IMPORTANT!

Sydney Metro may have approval to impact on certain heritage items during construction. If you think that you may have discovered a heritage item and you are unsure whether an approval is in place or not, **STOP** works and follow this procedure.

Table 2 Specific tasks to be implemented following the discovery of an unexpected heritage item

Step	Task	Responsibility	Guidance and tools
1	Stop work, protect item and inform the Excavation Director		
1.1	Stop all work in the immediate area of the item and notify the Project Manager	Contractor/ Supervisor	Appendix 1 (Identifying Unexpected Heritage items)
1.2	Establish a 'no-go zone' around the item. Use high visibility fencing, where practical. No work is to be undertaken within this zone until further investigations are completed and, if required, appropriate approvals are obtained. Inform all site personnel about the no-go zone.	Project Manager/ Contractor/ Supervisor	
1.3	Inspect, document and photograph the item.	Archaeologist and or Excavation Director	Appendix 2 (Unexpected Heritage Item Recording Form) Appendix 3 (Photographing Unexpected Heritage items)
1.4	Is the item likely to be bone? If yes , follow the steps in Appendix 4 – 'Uncovering bones'. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site. Also refer to the Sydney Metro Exhumation Management Plan If no , proceed to next step.	Excavation Director	Appendix 4 (Uncovering Bones)

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Step	Task	Responsibility	Guidance and tools
1.5	Inform the Excavation Director of the item and provide as much information as possible, including photos and completed form (Appendix 2). Where the project has a Sydney Metro Environmental Manager, the Environmental Manager should be involved in the tasks/process.	Contractors Project Manager	
1.6	Can the works avoid further disturbance to the item? Project Manager to confirm with Sydney Metros Environment Manager. Complete the remaining tasks in Step 1.	Contractors Project Manager	
1.7	Excavation Director and Sydney Metro Environmental Manager to advise the Project Manager whether Sydney Metro has approval to impact on the 'item'. Does Sydney Metro have an approval or permit to impact on the item? If yes, work may recommence in accordance with that approval or permit. There is no further requirement to follow this procedure. If no, continue to next step.	Contractors Project Manager	
1.8	Has the 'find' been damaged or harmed? If yes , record the incident in the Incident Management System Implement any additional reporting requirements related to the planning approval and CEMP, where relevant.	Contractors Project Manager, Excavation Director	
2	Contact and engage an archaeologist and/or an Aboriginal heritage consultant		
2.1	If an archaeologist and/or Aboriginal heritage consultant has been previously appointed for the project, contact them to discuss the location and extent of the item and arrange a site inspection, if required. The project CEMP may contain contact details of the archaeologist/Aboriginal heritage consultant. Where there is no project archaeologist engaged for the works engage a suitably qualified consultant to assess the find: if the find is a non-Aboriginal deposit, engage a suitably qualified and experienced archaeological consultant if the find is likely to be an Aboriginal object,	Contractors Project Manager, Excavation Director	
	engage an Aboriginal heritage consultant to assess the find.		
2.2	If requested, provide photographs of the item taken during Step 1.3 to the archaeologist or Aboriginal heritage consultant.	Contractors Project Manager, Excavation Director	Appendix 3 (Photographing Unexpected Heritage items)

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Step	Task	Responsibility	Guidance and tools
3	Preliminary assessment and recording of the find		
3.1	In a minority of cases, the archaeologist/Aboriginal heritage consultant may determine from the photographs that no site inspection is required because no heritage constraint exists for the project (e.g. the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'). Any such advice should be provided in writing (e.g. via email or letter with the consultant's name and company details clearly identifiable) to the Sydney Metro Project Manager.	Archaeologist/ Aboriginal heritage consultant/ , Excavation Director	Proceed to Step 8
3.2	Arrange site access for the archaeologist/Aboriginal heritage consultant to inspect the item as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment.	Contractors Project Manager, Excavation Director	
3.3	Subject to the archaeologist/Aboriginal heritage consultant's assessment, work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which may have not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to reflect the extent of the newly assessed protective area. No works are to take place within this area once established.	Archaeologist/ Aboriginal heritage consultant Contractors Project Manager, Excavation Director	
3.4	The archaeologist/Aboriginal heritage consultant may provide advice after the site inspection and preliminary assessment that no heritage constraint exists for the project (e.g. the item is not a 'relic' or a 'heritage item' or an 'aboriginal item'. Any such advice should be provided in writing (e.g. via email or letter with the consultant's name and company details clearly identifiable) to the Metro Project Manager. Note that: a relic is evidence of past human activity which has	Archaeologist/ Aboriginal heritage consultant/ Contractors Project Manager, Excavation Director	Proceed to Step 8 Refer to Appendix 1 (Identifying heritage items)
	local or State heritage significance. It may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse		
	an Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree		
	a "work", building or standing structure may include tram or train tracks, kerbing, historic road pavement, fences, sheds or building foundations.		

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Step	Task	Responsibility	Guidance and tools
3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). The archaeologist/Aboriginal heritage consultant can provide contacts for such specialist consultants.	Excavation Director Archaeologist	
3.6	Where the item has been identified as a 'relic' or 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item.	Archaeologist/ Aboriginal heritage consultant	
3.7	OEH (Heritage Division for non-Aboriginal relics and Planning and Aboriginal Heritage Section for Aboriginal objects) can be notified informally by telephone at this stage by the Sydney Metro Environmental Manager Any verbal conversations with regulators must be noted on the project file for future reference.	Contractors Project Manager, Excavation Director	
4	Section 4 not used		
5	Notify the regulator, if required.		
5.1	Based on the findings of the archaeological or heritage management plan and corresponding legislative requirements, is the find required to be notified to OEH and the Secretary? If no, proceed directly to Step 6	Sydney Metro Environmental Manager Excavation Director	
5.2	If yes, proceed to next step.	Cydnay Matra	Annondiv 6
5.2	If notification is required, complete the template notification letter, including the archaeological/heritage management plan and other relevant supporting information and forward to the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) for signature.	Sydney Metro Environmental Manager Excavation Director	Appendix 6 (Template Notification Letter)
5.3	Forward the signed notification letter to OEH and the Secretary. Informal notification (via a phone call or email) to OEH prior to sending the letter is appropriate. The archaeological or heritage management plan and the completed site recording form (Appendix 2) must be submitted with the notification letter (for both Aboriginal objects and non-Aboriginal relics). For Part 5.1 projects, the Department of Planning and Environment must also be notified.		

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Step	Task	Responsibility	Guidance and tools
5.4	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form is to be kept on file and a copy sent to the Sydney Metro Project Manager.	Contractors Project Manager, Excavation Director	
6	Implement archaeological or heritage management plan		
6.1	Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with OEH.	Contractors Project Manager, Excavation Director	
6.2	Implement the archaeological or heritage management plan. Where impact is expected, this may include a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with Registered Aboriginal Parties, obtaining heritage approvals etc., if required.	Contractors Project Manager, Excavation Director	
6.3	Where heritage approval is required contact the Sydney Metro Environment Manager for further advice and support material. Please note there are time constraints associated with heritage approval preparation and processing.	Contractors Project Manager, Excavation Director	
6.4	Assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment.	, Excavation Director/Sydney Metro Environmental Manager	
6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	Contractors Project Manager, Excavation Director	
6.6	Where statutory approval is not required but where recording is recommended by the archaeologist/Aboriginal heritage consultant, sufficient time must be allowed for this to occur.	Contractors Project Manager, Excavation Director	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material removed from site, where required. Interested third parties (e.g. museums, local Aboriginal land councils, or local councils) should be consulted on this issue. Contact the archaeologist or Aboriginal heritage consultant for advice on this matter, if required.	Contractors Project Manager, Excavation Director	
7	Section 7 Not Used		

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Step	Task	Responsibility	Guidance and tools
8	Resume work		
8.1	Seek written clearance to resume project work from the project Excavation Director/Archaeologist/Aboriginal heritage consultant. Clearance would only be given once all archaeological excavation and/or heritage recommendations and approvals (where required) are complete. Resumption of project work must be in accordance with the all relevant project/heritage approvals/determinations.	Contractors Project Manager, Excavation Director	
8.2	If required, ensure archaeological excavation/heritage reporting and other heritage approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.	Contractors Project Manager, Excavation Director	
8.3	Deleted		
8.4	If additional unexpected items are discovered this procedure must begin again from Step 1.	All	

7. Responsibilities

Table 3 Roles and Responsibilities

Role	Responsibility or role under this guideline		
Contractor / Supervisor	Stop work immediately when an unexpected heritage find is encountered. Cordon off area until Environmental Manager /Excavation Director advises that work can recommence.		
Contractor or Environment Manager	Manage the process of identifying, protecting and mitigating impacts on the 'find'. Liaise with Sydney Metro Project Manager and Environment Manager and assist the archaeologist/Aboriginal heritage consultant with mitigation and regulatory requirements. Complete Incident Report and review CEMP for any changes required. Propose amendments to the CEMP if any changes are		
	required.		
Contractor's or Project Heritage Advisor or Consultant	Provide expert advice to the Sydney Metro Environment Manager on 'find' identification, significance, mitigation, legislative procedures and regulatory requirements.		
Environmental Representative	Independent environmental advisor engaged by Sydney Metro Ensures compliance with relevant approvals (new and existing).		
Heritage Division of OEH	Regulate the care, protection and management of relics (non-Aboriginal heritage). Delegated authority for Heritage Council Issue excavation permits.		



Role	Responsibility or role under this guideline	
Registered Aboriginal Parties (RAPs)	Aboriginal people who have registered with Sydney Metro to be consulted about a proposed project or activity in accordance with the OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.	
Sydney Metro Environment Manager	Notify the Sydney Metro Principal Manager, Environmental Management of 'find' and manage Incident Reporting once completed by Environmental Manager.	
Contractors Project Manager	Ensures all aspects of this procedure are implemented. Advise Contractor / Supervisor to recommence work if all applicable requirements have been satisfied and the Excavation Director /Project Archaeologist has approved recommend of work.	

8. Seeking Advice

Advice on this procedure should be sought from the Sydney Metro Environment a Manager in the first instance. Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure.

Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from a suitably qualified and experienced archaeologist/Aboriginal heritage consultant.

9. Related documents and references

- Environmental Incident Classification and Reporting 9TP-PR-105
- Guide to Environmental Control Map 3TP-SD-015
- NSW Heritage Office (1998), Skeletal remains: guidelines for the management of human skeletal remains.
- Roads and Maritime Services (2015), Standard Management Procedure Unexpected Heritage Items.
- Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal remains.*
- Sydney Metro Exhumation Management Plan

10. List of appendices

The following appendices are included to support this procedure:

Appendix 1: Examples of finds encountered during construction works

Appendix 2: Unexpected Heritage Item Recording Form Appendix 3: Photographing Unexpected Heritage Items

Appendix 4: Uncovering Bones

Appendix 5: Archaeological Advice Checklist Appendix 6: Template Notification Letter

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11. Document history

Version	Date of approval	Notes
1.1		Incorporates ER comments 21/06/17
1.2		Amends p13 step 8 reference to s146 added
1.3		Incorporates Planning Mods 1-4 including amended CoA E20
1.4		Incorporates ER comments 21/03/18
2.0		Removes SSI 15-7400 COA reference



Appendix 1: Examples of finds encountered during construction works



Photo 1 - Aboriginal artefacts found at the Wickham Transport Interchange, 2015



Photo 2 – Aboriginal artefacts (shell material) found at the Wickham Transport Interchange, 2015







Photo 3 1840s seawall and 1880s retaining wall uncovered at Balmain East, 2016



Photo 4 Sandstone pavers uncovered at Balmain East, 2016







Photo 5 - Platform structure at Hamilton Railway Station classified as a 'work' by the project archaeologist - Wickham Transport Interchange project, 2015





Photo 7 - Sandstone flagging and cesspit - Wynyard Walk project, 2014







Photo 8 - Chinese Ming Dynasty pottery and English porcelain/pottery dating back to early 19th century -Wynyard Walk project, 2014



Photo 9 - Pottery made by convict potter Thomas Ball during the early settlement - Wynyard Walk project, 2014



The following images, obtained from the Roads and Maritime Services' *Standard Management Procedure for Unexpected Heritage items 2015*, can be used to assist in the preliminary identification of potential unexpected items during construction and maintenance works.



Photo 10 - Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area) (RMS, 2015).



















Photo 11 - Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area) (RMS, 2015).



Appendix 2 - Unexpected heritage item recording form

Example of unexpected heritage item recording form:

This form is to be completed Excavation Director on the discovery of an archaeological heritage item during construction or maintenance works

Date:	Recorded by:	
	(include name and position)	
Project name:		
Description of works being undertaken:		
Description of exact location of item		
Description of item found		
(What type of item is it likely to be? Tick the relevant boxes).		
A. A relic	A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottle, utensils, plates, cups, household items, tools, implements, and similar items	
B. A 'work', building or structure'	A 'work' can generally be defined as a form infrastructure such as track or rail tracks, timber sleepers, a culvert, road base, a bridge pier, kerbing, and similar items	
C. An Aboriginal object	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones	
D. Bone	Bones can either be human or animal remains. Remember that you must contact the local police immediately by telephone if you are certain that the bone(s) are human remains.	
E. Other		
Provide a short description of the item (E.g. metal rail tracks running parallel to the rail corridor. Good condition. Tracks set in concrete, approximately 10 cm below the current ground surface).		

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Sketch (Provide a sketch of the item's general location in relation to other road features so its approximate location can be mapped without having to reexcavate it. In addition, please include details of the		
location and direction of any photographs of the item taken)		
Action taken (Tick either A or B)		
A. Unexpected item would not be further impacts on by the works	Describe how works would avoid impact on the item. (E.g. the rail tracks would be left in situ and recovered with paving).	
B. Unexpected item would be further impacted by the works	Describe how works would impact on the item. (E.g. milling is required to be continued to a depth of 200 mm depth to ensure the pavement requirements are met. Rail tracks would need to be removed.)	
Excavation Director	Signature	
LASAVALION DIFFEREN	- Oignature	
	Signature	

Important

It is a statutory offence to disturb Aboriginal objects and historic relics (including human remains) without an approval. All works affecting objects and relics must cease until an approval is sought.

Approvals may also be required to impact on certain works.

Appendix 3 - Photographing unexpected heritage items

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

Context and detailed photographs

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

Removal of the item from its context (e.g. excavating from the ground) for photographic purposes is not permitted.

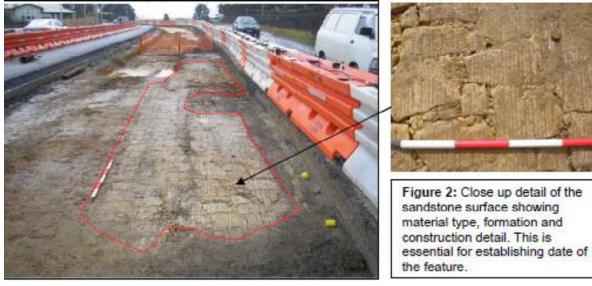


Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008 (RMS, 2015).

Photographing distinguishing features

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



Figure 3: Ceramic bottle artefact with stamp.



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

Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, the police must be contacted immediately (see Appendix 6 for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. The project archaeologist can confirm if bones are human or non-human if provided with appropriate photographs.

Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed.

Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.



Figure 5: Bone concealed by foliage.



Figure 6: Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily



be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.



Figure 7: Photograph showing complete bone.



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



Appendix 4 - Uncovering bones

This appendix provides advice regarding:

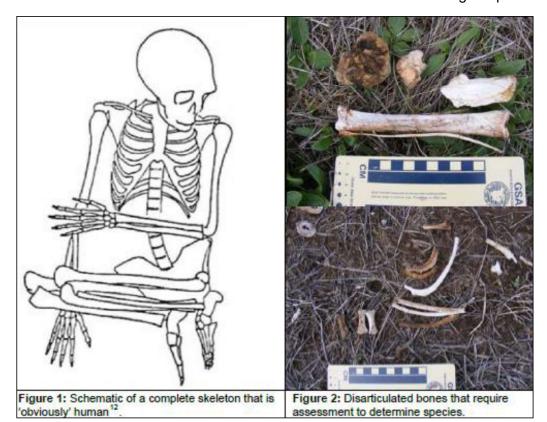
- what to do on first discovering bones
- the range of human skeletal notification pathways
- additional considerations and requirements when managing the discovery of human remains.

1. First uncovering bones

Refer to the Sydney Metro Exhumation Management Plan

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. The bones must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist.

On the very rare occasion where it is immediately obvious from the remains that they are human, the Project Manager (or a delegate) should <u>inform the police by telephone</u> prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1⁹. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and/or clothing are present.



⁹ After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains:* 17



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

Where it is not immediately obvious that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix 3. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur.

Preliminary telephone or verbal notification by the archaeologist to the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) is appropriate. This must be followed up later by a formal letter notification to the relevant regulator when a management plan has been developed and agreed to by the relevant parties.

2. Range of human skeletal notification pathways

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

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

Action

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

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

Action

The OEH (Planning and Aboriginal Heritage Section) must be notified immediately. The Aboriginal Cultural Heritage Advisor must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site.

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

Action

The OEH (Heritage Division) must be notified immediately

Figure 3 summarises the notification pathways on finding bones.



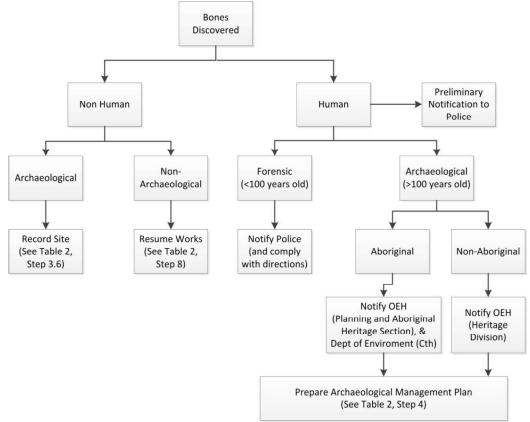


Figure 3 Overview of steps to be undertaken on the discovery of bones

After the appropriate verbal notifications (as described in 2B and 2C above), the Project Manager must proceed through the *Unexpected Heritage Items Exhumation Management Plan* (Step 4). It is noted that no *Exhumation Management Plan* is required for forensic cases (2A), as all future management is a police matter. Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to record the find as per Step 3.6.

3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Project Managers may need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains.

Project Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 1991* (NSW). Specifically, Sydney Metro may be required to apply to the Director General of NSW

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Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health (Disposal of Bodies) Regulation 2002* (NSW)¹⁰.

Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at the NSW Department of Health website.

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

¹⁰ This requirement is in addition to heritage approvals under the *Heritage Act 1977*.



Appendix 5 - Archaeological/heritage advice checklist

The archaeologist/Aboriginal heritage consultant must advise the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) of an appropriate archaeological or heritage management plan as soon as possible after an inspection of the site has been completed (see Step 4). An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance.

In discussions with the archaeologist/Aboriginal heritage consultant the following checklist can be used as a prompt to ensure all relevant heritage issues are considered when developing this plan. This will allow the project team to receive clear and full advice to move forward quickly. Archaeological and/or heritage advice on how to proceed can be received in a letter or email outlining all relevant archaeological and/or heritage issues.

	Required	Outcome/notes
Assessment and investigation		
Assessment of significance	Yes/No	
Assessment of heritage impact	Yes/No	
Archaeological excavation	Yes/No	
Archival photographic recording	Yes/No	
Heritage approvals and notifications		
AHIP, section 140, section 139 exceptions etc.	Yes/No	
Regulator relics/objects notification	Yes/No	
 Notification to Sydney Trains for s170 heritage conservation register 	Yes/No	
 Compliance with CEMP or other project heritage approvals 	Yes/No	
Stakeholder consultation		
Aboriginal stakeholder consultation	Yes/No	
Artefact/heritage item management		
 Retention or conservation strategy (e.g. items may be subject to long conservation and interpretation) 	Yes/No	
Disposal strategy	Yes/No	
 Short term and permanent storage locations (interested third parties should be consulted on this issue). 	Yes/No	
Control Agreement for Aboriginal objects	Yes/No	



Appendix 6 - Template notification letter

Insert on TfNSW letterhead Select and type date] [Select and type reference number]

XXX

Manager, Conservation Heritage Division, Office of Environment and Heritage Locked Bag 5020 Parramatta NSW 2124

[Select and type salutation and name],

Re: Unexpected heritage item discovered during Sydney Metro activities.

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Sydney Infrastructure and Services construction works at [insert location] on [insert date] in accordance with the notification requirement under select: section 146 of the *Heritage Act 1977* (NSW). [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

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

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

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

Based on the preliminary findings, Sydney Metro [or contractor] is proposing [provide a summary of the proposed archaeological/heritage approach (e.g. develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

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

Should you have any feedback on the proposed approach, or if you require any further information, please do not hesitate to contact [Environment and Planning Project Manager] on (02) XXXX XXXX.

Yours sincerely

[Sender name]

Sydney Metro Principal Manager Sustainability Environment and Planning (Program) [Attach the archaeological/heritage management plan and site recording form]



Appendix 2.2: DG-ZH-FM071.3 Land or Vegetation Disturbance Permit



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Œ.	slationships creating success	Land of Vegetation Disturbance Permit
Z	NSTRUCTIONS	
	Use this permit for activities which lead to t imited to, broad scale cleaning, access tra	Dee this permit for activities which lead to the disturbance of land or any tree, shub, grass or other plant, including but not limited to, broad scale clearing, access track construction, isolated free removal, grubbing, roos cutting, and stockpling or

placement of c	placement of objects over vegetated areas.			20 Maria 20 2020 20 2020 10
 This requirement e customer approval 	ent excludes routine maintenance roval.	of park	cs and re	This requirement excludes routine maintenance of parks and reserves (e.g. mowing) or pruning / trimming activities with customer approval.
 For further infe 	ormation on vegetation disturbance	oe, refer	10 DG-2	For further information on vegetation disturbance, refer to DG-ZH-ST071.2 Flora and Fauna Management Standard.
If you have an	If you have any queries seek advice from your local Environment/ Zero Harm Advisor.	local En	vironme	nt Zero Harm Advisor.
Delete all instr	Delete all instances of the blue instructional text after completing this form	t after o	ompletin	g this form.
SECTION 1 - WO	RK DETAILS & PERMIT VALIDI	TY - W	ORK SU	SECTION 1 - WORK DETAILS & PERMIT VALIDITY - WORK SUPERVISOR OR SITE ENGINEER
Date Requested:	0	Name:	_	
Project Name:				Map Attached?
Company:	0			
Permission is requested to disturb the following area:				
Purpose of disturbance?	<u></u>			
SECTION 2 - PER	SECTION 2 - PERMISSIBILITY - ENVIRONMENT ADVISOR OR APPROVED PERSON	ADVIS	OR OR	APPROVED PERSON
Consideration		Yes	No	Comment/Requirement
Has the area to be	Has the area to be disturbed been inspected?			-
is the disturbance authorisation (e.g.	is the disturbance compliant with the regulatory authorisation (e.g. permit) or consent conditions?			0
SECTION 3 - ENV	TRONMENTAL ASSESSMENT	& CONT	ROLS-	SECTION 3 - ENVIRONMENTAL A SSESSMENT & CONTROLS - ENVIRONMENT ADVISOR OR APPROVED PERSON
Consideration		Yes	No	Comment' Requirement
Is an ecological pri per planning appro	is an ecological pre-clearance survey required as per planning approvals and/ or permits?			
Are there any spec notification proced	Are there any specific community/ stakeholder notification procedures that need to be followed?			
Are there any additional or crown land owners?	Are there any additional requirements from private or crown land owners?			
is there a requirem control within the d ZH-ST071 Blosec	is there a requirement for biosecurity/ weed control within the disturbance area? Refer to DG-ZH-ST071 Blosecurity Management Standard.			
Has an erosion and sedi advisory sheet) been pre Refer to DG-ZH-ST084 b Management Standard	Has an erosion and sediment control plan (site advisory sheet) been prepared for the activity? Refer to DG-ZH-ST084 Waraer Discharge Management Standard.			
Are there any avoidemarcating? (e.g. sites, or threatened ST076 Heritage M	Are there any avoidance areas that require demarcating? (e.g. habbat trees, cultura hertiage sizes, or threatened species)? Refer to DG-ZH-ST076 Hertiage Management Standard.	亘		

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Land or Vegetation Disturbance Permit

Are any other environmental control environmental close? SECTION 4 – PERMIT AUTHORISA MORT SUBERVIERE WORT SUBERVIERE WORT SUBERVIERE SECTION 5 STE ENGINEER WORT SUBERVIERE SECTION 5 STE ENGINEER WORT SUBERVIERE SECTION 5 WOOR EVENT STEPPER AND STE ENGINEER ENVIRONMENTAL CONTROL (SectION 5 WOOR EVENT STEPPER ASSESSMENT & CONTROL (SECTION 5 WOOR EVENT STEPPER ASSESSMENT & CONTROL (SECTION 5 WOOR EVENT STEPPER IN ENVIRONMENT STEPPER IN ENGINEERING STE		<u>.</u>	0,			
SECTION 4 – PERM OR SITE ENGINEE Work Supervivories that Jahan Vakdity (Jahan Vakdity (Jahan Vakdity (Jahan Vakdity (Jahan Vakdity (Jahan Vakdity (Are any other environmental controls required to mitigate or guard against associated ervironmental risks?			-		
Wort Supervisor or site Engineer 1 declare that I have reviewed and u permit validity (Section 1 Work Validity) environmental controls (Section Assessment & Controls); and irequirements of DG-2N-ST071. If an agement Standard.	MIT AUTHORISATION – ENVIR	ONMENT A	DVISOF	SECTION 4 - PERMIT AUTHORISATION - ENVIRONMENT ADVISOR OR APPROVED PERSON & WORK SUPERVISOR OR SITE ENGINEER.	K SUPER	RVISOR
i deciare that I have permit validity ('Validity) environmental of Assessment & (nequirements of ill anagement s	or Site Engineer	Em	vironme	Environment Advisor/ Approved Person		
Assessmental of Assessment & (Inquirements of Managements)	I declare that I have reviewed and understand the: permit validity (Section 1 Work Details & Permit Validity)	342	reviewed Engineer	I declare that I have: reviewed the scope of work with the Work Supervisor! Site Engineer	upervisor	Sign
requirements of	environmental controls (Section 3 Environmental Assessment & Controls); and	76	completed an	completed an assessment of permissibility (Section 2 Permissibility)	Section 2	
	requirements of DG-2H-ST071.2 Flora and Fauna Management Standard.		am sati docume Control	am salisified that appropriate environmental controls are documented (Section 3 Environmental Assessment & Controls); and	controls a	2
		•	STOT1.	reviewed and understand the requirements of DG-ZH- ST071.2 Flora and Fauna Management Standard.	of DG-ZH randard.	3
Name:		Na	Name:	-		
Signature:		Sig	Signature:			
Date:		Date	92	0		
SECTION 5 - PRE-	SECTION 5 - PRE-START CHECKLIST - WORK SUPERVISOR OR SITE ENGINEER	SUPERVISC	S NO NO	ITE ENGINEER	3	
					Yes	N/A
Where required in S been inspected, is in clearly visible.	Where required in Section 3 Environmental Assessment & Controls, boundary pegging and flagging has been inspected, is in accordance with DG-2H-57071.2 Flora and Fauria Management Standard, and Codemy visible.	nent & Cont	rols, bou	in Section 3 Entitronmental Assessment & Controls, boundary pegging and flagging has its in accordance with DG-2H-ST071.2 Flore and fauna Management Standard, and is its in accordance with DG-2H-ST071.2 Flore and fauna Management Standard, and is		
Where required in S demarcated.	Where required in Section 3 Environmental Assessment & Controls, all avoidance areas (if any) are demarcated.	nent & Cont	rols, all a	avoidance areas (if any) are		
A physical walk arou spotter, if required).	A physical wask around of the disturbance area has been conducted with each operatori worker (and sporter, if required).	been candu	cted with	seach operator/ worker (and		
A pre-start meeting signed the relevant	A pre-start meeting has been completed with all personnel involved in the signed the relevant SWMS that adequately addresses environmental risks	sonnel invol	ved in the	A pre-start meeting has been completed with all personnel involved in the activity, and all personnel have signed the relevant SWMS that adequately addresses environmental risks.		
All personnel super- erivironmentally sen	All personnel supervising the works have a copy of this permit, and the relevant site map(s) indicating environmentally sensitive areas, at all times.	his permit, a	and the r	elevant site map(s) indicating		
Where required in Se has been carried out	Where required in Section 3 Environmental Assessment & Controls, an ecological pre-clearance survey has been carried out.	nent & Cont	nols, an	ecological pre-clearance survey	豆	
SECTION 6 - AUTH	HORISATION TO COMMENCE	WORK - W	ORK SU	- AUTHORISATION TO COMMENCE WORK - WORK SUPERVISOR OR SITE ENGINEER		
Name:						
Signature:				Date:		

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Appendix 3: Community Notification.



City & Southwest

Notification - Southwest Metro

Punchbowl to Bankstown - March 2021

Sydney Metro is Australia's biggest public transport project.

Services started in May 2019 in the city's North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024, There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro platforms at Central. In 2024, Sydney will have 31 metro railway stations and a 65 km standalone metro railway system - the biggest urban rali project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre. The upgrade of the T3 Bankstown Line to metro standards between Sydenham and Bankstown received planning approval on 19 December 2018.

and site conditions permitting). Access to the rail corridor will be via existing corridor/pedestrian access gates. Day work In March, early work will continue along the T3 Bankstown Line between Punchbowl and Bankstown stations (weather will be undertaken during project standard construction hours Monday to Friday 7am-6pm and Saturday 8am-6pm



Out-of-hours work

Date / time

Due to the nature of scene activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with Transport for NSW requirements for the movement of oversized vehicles.

During the		Non intrusive survey of fencing along the railway comidor
scheduled rail	*	Surveys at Bankshown Station consisting of test pits and boreholes at the pilatform and track
shuldown		level, and non intrusive drainage surveys
weekend	*	Installation of new cable routes
Determine 6th Wanter	٠	Non intrusive inspections and surveys at Punchbowl station and surrounds
Friday 68 March to Tam		Installation of hoarding at Punchbowl station (subject to approval)
Monday 22 March 2021		Potholing and geotechnical investigations including non deshruche digging, soil testing and surveys inside the rail contidor.

Equipment used for all the above work will include excavators, jack hammers, vacuum trucks, tipper, motorised saws. concrete trucks, delivery vehicles, borehole driller, rollers, generators, whacker packer, dump trucks, plate compactor mulcher, grass cutters, telehander, piling rig, crane trucks, drilling rig, lifting machinery, elevated work platform, bobcats concrete pumps, cable pulling equipment, lighting towers, forkiff, water cart, hand and power tools

Access to buildings and driveways will be maintained at all lines. Some of this work may be notey, however we will take every possible step to minimise noise such as switching off equipment when not in use and using non tonal reversing beepeis. Where temporary footpath changes, car parking removal or lane closures are required for works, traffic pedestrian detours and signage will be in place to assist the community



Keeping you informed

Properties close to the rail comidor will receive notifications when construction work is scheduled to occur. You can contact us on 1800 (71 386 (24 hour community information line). If you have questions about the substations please ask for Grace or email LinewideMetro@transport.nsw.gov.au. For all other works piease ask for Andie or email <u>Stransport new gov au.</u> Thank you for your cooperation while we complete this essential work.

- If you need an interpreter, contact TIS National on 131 450 and ask them to cal 1800 171 386 1800 171 386 Community information line open 24 hours
 southwestmetro@transport.nsw.gov.au
 Sydney Matro City & Southwest, PO Box K659, Haymarket NSW 1240
 If you need an interpreter, contact TIS National on 131 450 and ask thee





Notification - Southwest Metro

Duhwich Hill - March 2021

Sydney Metro is Australia's biggest public transport project.

Services started in May 2019 in the city's North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangano and new metro platforms at Central. In 2024. Sydney will have 31 metro railway stations and a 66 km standatione metro railway system - the biggest urban rall project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre. The upgrade of the T3 Bankstown Line to metro standards between Sydenham and Bankstown received planning approval on 19 December 2018. In March, work will continue along the T3 Bankstown Line at Dulwich Hill, weather and site conditions permitting. Access to the rail corridor will be via existing corridor/pedestrian access gates. Day work will be during project standard construction hours Monday to Friday 7am-6pm and Saturday 8am-6pm.

Location	Pets	Detail of day work
Dutwich Hill	Activ	Activities will include:
(at the station		Topographic scanning and drainage surveys in the rail comdor, at stations and in nearby public areas
and along the		Non-intrusive survey of fencing along the railway comidor
rail corridor)	*	Geotechnical investigations, utilities surveys, thee and soil assessments inside the rail contidor and in
		nearty public areas
		Installation and removal of haul roads and temporary fencing throughout the rail comidor
		Devegetation and clearing throughout the rail conidor where required
	٠	Site compound establishment including installation of site sheds, subject to approval
	*	installation of temporary fencing, new cable routes, cabling and galvanised street toughing (GST)
		Transportation of earthworks material via the rail access gate near Ewart Street, Dutwich Hill
	*	Visual inspections of station buildings and roads adjacent to the rail alignment
	*	Locating underground services including non-desthuctive digging close to and inside the rail comfor-
	*	installation of signal equipment and cabling
Substation site	Activ	Activities at the substittion wite will include:
(off Handlett	٠	Installation of pole for temporary power connection
Street behind		Installation of tree protection on Randall Street
Albermane	٠	Temporary water and sewer connection for the work site
Street.	*	Installation of water filled barriers, site sheds and temporary fencing
Marricholie	*	Increasing the height of cables on Randall Street
	•	Excession works polision installation of alactrical conduits

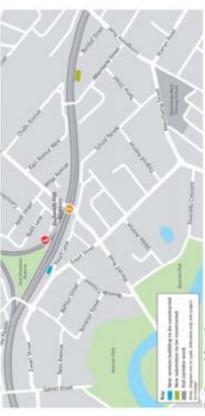
Out-of-hours work

Due to the nature of some activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with Transport for NSW requirements for the movement of oversized vehicles



concrete trucks, delivery vehicles, borehole driller, rollers, generators, whacker packer, dump trucks, wood chipper mulcher, grass cutters, telehandler, piling rig, crane brucks, drilling rig, lifting machinery, elevated work platform, bobcats Equipment used for all the above work will include excavators, jack hammers, vacuum trucks, slasher, motorised saws concrete pumps, cable pulling equipment, compactors, lighting howers, forkitit, water cart, hand and power tools.

Access to buildings and driveways will be maintained at all times. Some of this work may be noisy, however we will take every possible step to minimise noise such as switching off equipment when not in use and using non-lonal reversing beopers. Where temporary footpath changes, car parking removal or lane closures are required for works, traffic control, pedestrian detours and signage will be in place to assist the community



ceeping you informed

Properties close to the rail corridor will receive notifications when construction work is scheduled to occur. You can contact us on 1800 171 386 (24 hour community information line). If you have questions about the substations please ask for Grace or email LinewideMetro@transport.nsw.gov.au, For all other works please ask for Klia or email SouthwestMoto@transport.nsw.gov.au. Thank you for your cooperation while we complete this essential work.

- (5) 1800 171 386 Community information line open 24 hours
- southwestmetro@transport.nsw.gov.au
- Sydney Metro City & Southwest, PO Box K659, Haymarket NSW 1240
- If you need an interpreter, contact TIS National on 131 450 and ask them to call 1800 171 386 **600**

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Equipment used for all the above work will include excavators, jack hammers, vacuum trucks, tipper, motorised saws. concrete trucks, delivery vehicles, borehole driller, rollers, generators, whacker packer, dump trucks, plate compactor mulcher, grass cutters, Nelehandler, piling rig, crane trucks, drilling rig, lifting machinery, elevated work platform, bobcats

Access to buildings and driveways will be maintained at all times. Some of this work may be noisy, however we will take every possible step to minimise noise such as switching off equipment when not in use and using non tonal reversing beepers. Where temporary footpath changes, car parking removal or lane closures are required for works, traffic

control, pedestrian detours and signage will be in place to assist the community.

concrete pumps, cable pulling equipment, lighting towers, forkiff, water cart, hand and power tools.

Notification - Southwest Metro

Wiley Park - March 2021

Sydney Metro is Australia's biggest public transport project.

Services started in May 2019 in the city's North West with a train every four minutes in the peak. Meto rail will be extended into the CBD and beyond to Bankstown in 2024, There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro piatforms at Central. In 2024, Sydney will have 31 metro railway stations and a 66 km standatione metro railway system – the biggest urban rali project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre. The upgrade of the T3 Bankstown Line to metro standards between Sydersham and Bankstown received planning approval on 19 December 2018.

In February 2021, a contract was awarded to Downer EDI Works to upgrade Huristone Park, Beimore and Wiley Park stations to metro rail standards. You will notice work taking place around the station in the coming months In March, early work will continue along the T3 Bankstown Line at Wiley Park (weather and site conditions permitting) Access to the rail corridor will be via existing corridor/pedestrian access gates. Day work will be undertaken during **project** standard construction hours Monday to Friday 7am-6pm and Saturday 8am-6pm.

Detail of day work

Activities will include: (at the station Wiley Park

and along the

rail corridor)

- Geotechnical, utilities and site investigations, tree assessments and surveys inside the rail corridor and in nearby public areas
- Devegelation, tree trimming and removal throughout the rail comdor where required Site compound establishment including installation of site sheds, subject to approval
- Installation of fencing, cabling and galvanised street troughing (GST)
- Locating underground services, potholing and non destructive digging close to and inside the rail corridor
- Visual impections and surveys of Wiley Park station buildings and surrounding locations, including roads adjacent to the rail alignment
- Topographic scanning and drainage surveys in the rail comidor, at stations and in nearby public areas

us on 1800 171 386 (24 hour community information line). If you have questions about the substations please ask for

SouthwestMetro@transport.nsw.gov.au. Thank you for your cooperation while we complete this essential work.

Properties close to the rail comdor will receive notifications when construction work is scheduled to occur. You can contact Grace or email LinewideMetro@transport.nsw.gov.au. For all other works please ask for Andie or email

Keeping you informed

Stay

These services building to be of the control of the control

Non infrusive survey of fencing along the railway corridor

Out-of-hours work

Due to the nature of some activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with Transport for NSW requirements for the movement of oversized vehicles

Detail of work Date / time

During the scheduled

Between 10:30pm Friday 19 March to 2am Monday 22

Marrch 2021

- Non intrusive survey of fencing along the railway corridor
- Potholing and geotochnical investigations including non destructive digging, soil testing

Subject to approval, work over the weekend to support the station upgrade will include:

- Non intrusive inspections and surveys at the station and sur-Minor tree trimming and vegetation clearing where required

- Sydney Metro City & Southwest, PO Box K659, Haymarket NSW 1240 (S) 1900 171 386 Community information line open 24 hours (S) southwestmetro@transport.nsw.gov.au (S) sydney Metro City & Southwest, PO Box K659, Haymanke (S) If you need an interpreter, contact TIS National on 131 456
- If you need an interpreter, contact TIS National on 131 450 and ask them to call 1800 171 386

all shutdown weekend:

Installing support structures for new electrical conduits and surveys inside the rail corridor





Notification - Southwest Metro

Huristone Park - March 2021

Sydney Metro is Australia's biggest public transport project.

into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Services started in May 2019 in the city's North West with a train every four minutes in the peak. Metro rall will be extended Place, Pitt Street and Barangaroo and new metro platforms at Central In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system - the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre. The upgrade of the T3 Bankstown Line to metro standards between Sydenham and Bankstown received planning approval on 19 December 2018. In February 2021, a contract was awarded to Downer EDI Works to upgrade Hurtstone Park, Belmore and Wiley Park stations to metro rail standards. You will notice work taking place around the station in the coming months.

undertaken during project standard construction hours Monday to Friday 7am-6pm and Saturday &am-6pm. The In March, work will continue along the rail corridor and at Huristone Park Station (weather and site conditions permitting). Access to the rail corridor will be via existing rail corridor/pedestrian access gates. Day work will be map on page 2 shows location details

Location	ā	Delail of day work
Huristone Park (at the		Activities will include:
station and along the	*	Topographic scanning and drainage surveys in the rail corridor, at stations and in nearby public
rail corridor)		SPRAS.
		Investigations and non-intrusive pipe inspections on station platforms.
		Geotechnical investigations, utilities surveys, the and soil assessments inside the rail corridor
		and in nearby public areas
	*	Installation and removal of hauf roads and temporary fencing throughout the rail corridor
	*	Devegetation and clearing throughout the rail corridor where required
	*	Installation of fencing, cable service routes and galvanised street troughing (GST)
	*	Transportation of earthworks material via the rail access gate near Hutton Street, Hurlatone Park
		Site compound establishment including installation of site sheds, subject to approval
		Maintenance of permanent security fencing including GST install near the Church Street
		footbridge, Canterbury (south side)
	*	Removal of redundant services adjacent to Hutton Street
		Non intrusive survey of fencing along the railway comidor
		Locating underground services including non-destructive digging close to and inside the rail compon
		Surveys and visual inspections of station buildings and roads in proximity to the rail alignment
	*	Installation of signal equipment and cabling
Carderbury substation		Installing a private pole for temporary power connection
Okution Streets	*	Tree trimming and removal where required
		Installing site sheds, water filled barriers and temporary fending
	*	Temporary water connection for the work site, this includes some road work on Hulton Street
		Excavation and installing in-ground electrical conduits

Out-of-hours work

Due to the nature of some activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with Transport for NSW requirements for the movement of oversized vehicles



bobcats, concrete pumps, cable pulling equipment, compactors, lighting towers, forkiffs, water carts, vibrating plates, and concrete trucks, sucker trucks, delivery vehicles, borehole drillers, rollers, generators, whacker packers, dump trucks, wood chippers, mulchers, grass cutters, telehandlers, crane trucks, drilling rigs, ill'ing machinery, elevated work platforms, Equipment used for all the above work will include excavators, jack havmers, vacuum trucks, stashers, motorised saws hand and power tools.

Access to buildings and driveways will be maintained at all times. Some of this work may be noisy, however we will take every possible step to minimise noise such as switching off equipment when not in use and using non-tonal reversing beepen. Where temporary footpath changes, car parking removal or lane closures are required for works, traffic control, pedestrian detours and signage will be in place to assist the community



Keeping you informed

Properties close to the rail contidor will receive notifications when construction work is scheduled to occur. You can contact us on 1800 171 386 (24 hour community information line). If you have questions about the substations please ask for Grace or email LinewideMetro@transport.rsw.gov.au. For all other works please ask for Killa or email ensport new gov au. Thank you for your cooperation while we complete this essential work.

- Sydney Metro City & Southwest, PO Box K659, Haymarket NSW 1240
- If you need an interpreter, contact TIS National on 131 450 and ask them to call 1800 171 386 (3) 1800 171 386 Community information line open 24 hours (3) southwestnetro@transport.nsw.gov.au (3) Sydney Metro City & Southwest PO Box K669, Haymarke (9) If you need an interpreter, contact TIS National on 131 466



sydney



City & Southwest

Notification - Southwest Metro

Belmore - March 2021

Sydney Metro is Australia's biggest public transport project.

Services started in May 2019 in the city's North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro platforms at Central. In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system – the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre. The upgrade of the T3 Bankstown Line to metro standards between Sydenham and Bankstown received planning approval on 19 December 2018. in February 2021, a contract was awarded to Downer EDI Works to upgrade Huristone Park, Belmore and Wiley Park stations to metro rail standards. You will notice work taking place around the station in the coming months In March, work will continue along the nal conridor and at Belmore Station (weather and site conditions permitting). Access to the rail corridor will be via existing rail coeridor/pedestrian access gates. Day work will be undertaken during project standard construction hours Monday to Friday 7am-8pm and Saturday Sam-6pm. The map on page 2 shows location

Location	Detail of day work
Belmore (at the station and along the rail corridor)	Activities will include: Investigations and non-intrusive pipe and fencing surveys on station platforms and along the rail corridor Geobactinical/side investigations, thee assessments and surveys inside the rail corridor and surrounding areas Devegebation, the timmining and clearing throughout the rail corridor where negated installation of fencing, cabling and galvanised street troughing (GST) Site compound establishment including installation of site sheds, subject to approval tocating underground services and non-destructive digging close to and inside the rail corridor Visual inspections and surveys of station buildings and roads adjacent to the rail corridor Toographic scanning and drainage surveys in the rail corridor, at stations and in nearby public areas
Bridge Road, Belmore	Activities at the site compound on Bridge Road near intersection with Peel Street will confinus Sites and offices will be set up inside the existing Sydney Trains facility (near the intersection with Marie Lane) to support Southwest Metro station upgrades.
Lakemba substation	Activities at the substation site (north of The Boulevarde, west of Taylor Street) will include: Non-destructive excavation and soil classification sampling Installing a pole for temporary power connection

Out-of-hours work

Due to the nature of some activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with Transport for NSW requirements for the movement of oversized vehicles.

Date / time	Detail of work
During the	 Geotechnical investigations, including non-destructive digging, soil testing
scheduled rail	surveying inside and along the rail corridor

shuddown veekend:

and a

havepray menor and signal equipment inside the rail corridor installing conduits, pits and signal equipment inside the rail corridor

Subject to approval, work over the weekend to support the station upgrade will include: Non-intrusive inspections and surveys at the station and surrounds

Installation of hoarding

Friday 19 March to 2am Monday 22 March 2021

Between 10:30pm

concrete trucks, sucker trucks, delivery vehicles, borehole drillers, rollers, generators, whacker packers, dump trucks, Equipment used for all the above work will include excavators, jack hammers, vacuum trucks, stashers, motorised saws wood chippers, grass cutters, telehandlers, crane trucks, drilling rigs, lifting machinery, elevated work platforms, bobcats concrete pumps, cable pulling equipment, compactors, lighting towers, forkiths, water carts, and hand and power tools

Access to buildings and driveways will be maintained at all times. Some of this work may be notsy, however we will take every possible step to minimise noise such as switching off equipment when not in use and using non-tonal reversing beepers. Where temporary footpath changes, car parking removal or lane closures are required for works, traffic



Ceeping you informed

us on 1800 171 386 (24 hour community information line). If you have questions about the substations please ask for Properties close to the rail conflor will receive notifications when construction work is scheduled to occur. You can contact Grace or email LinewideMetro@transport.nsw.gov.au. For all other works please ask for Kila or email ansport new gov au. Thank you for your cooperation while we complete this essential work.

- 1900 171 386 Community information line open 24 hours
- southwestmetro@transport.nsw.gov.au **2008**
- Sydney Metro City & Southwest, PO Box KB59, Haymarket NSW 1240
- If you need an interpreter, contact TIS National on 131 450 and ask them to call 1800 171 386





Notification - Southwest Metro

Campsie - March 2021

Sydney Metro is Australia's biggest public transport project.

Services started in May 2019 in the city's North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro platforms at Central. In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system - the biggest urban rali project in Australian history. There will be uttimate capacity for a metro train every two minutes in each direction under the Sydney city centre. The upgrade of the T3 Bankstown Line to metro standards between Sydenham and Bankstown received planning approval on 19 December 2018. In March, work along the T3 Bankstown Line in the rail corridor will continue at Campsie (weather and site conditions permitting). Access to the rail corridor will be via existing rail corridor/pedestrian access gates. Day work will be undertaken during project standard construction hours Monday to Friday 7am-6pm and Saturday Bam-6pm.

Location	Detail of day work.
Campsie (along	Activities will include:
the rail corridor)	 Geotechnical and site trivestigations inside the rail contidor and in nearby public areas, including localing underground services, non-destructive digging, soil assessments, utilities assessments innovement experience of services.
	Devegetation and cleaning throughout the rail contdor where required
	Transportation of material
	 Installing fencing, cabling and galvanised street troughing (GST) Retaining well installation works, landscaping concepts office and earthworks
	Site compound establishment including installation of site sheds, subject to approval
	 Visual inspections of roads adjacent to the rail alignment
	 Installing high voltage cabling near the western end of Campsie Station
	 Non intrusive survey of fencing along the railway comidor
South Parade hetween Duke	 Installation of GST and fence reinstalement works in the rail corridor adjacent to this location
Street and	To enable works to proceed safely, several car spaces on South Parade will be
Beamish Lane	Remporantly out of use throughout the duration of work. Signage will be in place to advise the community.
Substation site	Excavation and installing in-ground electrical conduits
(north of The	 Installing a pole for temporary power connection
Boulevarde, west	 Installing site sheds, hemporary femoing and water filled barriers Tone trieveling and tone seasonal without provised
france makes on	Temporary water connection, lectuding some road work on Lilian Street.

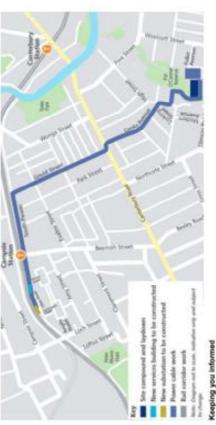
Out-of-hours work

Due to the nature of some activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with Transport for NSW requirements for the movement of oversized vehicles



Equipment used for all the above work will include excavators, jack hammers, vacuum trucks, stasher, motorised saws concrete trucks, delivery vehicles, borehole driller, rollers, generators, whacker packer, dump trucks, wood chipper mulcher, grass cutters, telehandler, piling rig, crane trucks, drilling rig. Ilfling machinery, elevated work platform, bolicats concrete pumps, cable pulling equipment, compactors, lighting towers, forkift, water cart, hand and power tools.

Access to buildings and driveways will be maintained at all times. Some of this work may be noisy, however we will take every possible step to minimise noise such as switching off equipment when not in use and using non-tonal reversing beepers. Where temporary footpath changes, car parking removal or tane closures are required for works, traffic control, pedestrian detours and signage will be in place to assist the community



Properties close to the rail corridor will receive notifications when construction work is scheduled to occur. You can contact us on 1800 171 356 (24 hour community information line). If you have questions about the substations please ask for Grace or email LinewideMetro@transport.nsw.gov.au. For all other works please ask for Kila or email transport new cov au. Thank you for your cooperation while we complete this essential work...

- 1800 171 386 Community information line open 24 hours
 southwestmetro@transport.nsw.gov.au
 Sydney Metro City & Southwest, PO Box K659, Haymaniet NSW 1240
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 If you need an interpreter, contact TIS National on 131 459 and ask them to call 1806 171 386

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Appendix 4: Environmental Representative Supporting Letter.



Appendix 5: Artefact Evidence Response for Belmore



Fri 12/03/2021 5:55 PIV

← Reply All → Forward ···

[External Email] This email was sent from outside

Following review of the proposed activities please see the revised advice below

the conditions state that consultation with DEH (now Heritage NSW, DDC) will be required where low impact activities would 'affect' heritage hears listed below, the conditions state heritage NSW, DDC) will be required where low impact activities would set with includes believe that consultation with DEH (now Heritage NSW, DDC) will be required where low impact activities would vessil the set of the set o

Based on this the following low impact activities should be ok to proceed without consultation with Heritage NSW, DPC as they would not result in any impacts to fabric, setting or potential archaeological remains

- **Building condition reports**
- Dilapidation reports
- Road condition reports Ecological and arborist reports
- *Tree trimming but not the removal of trees or stumps

These works would be limited to non-invasive surveys and inspections which would not require the modification of any significant fabric, installation or removal of elements which would result in visual impact potential archaeological remains. Note that tree to make trimining of the station. Minor trimming of branches would not detract from the setting and therefore would result in a neutral visual impact, however, removing trees would result in a visual impact and therefore would result in a visual impact. consultation.

n addition, the following activities should also be ok to proceed without consultation with Heritage NSW, DPC:

- Installing ATF and undertaking ground investigations near the proposed Metro Service Building (MSB) footprint The MSB footprint is located outside of the SHR curliage of Behavior and therefore no significant fabric would be impacted. Considering the fencing would be boated with the Behavior State of the SHR contain significant archaeological Research Design (ARD) that this area is unlikely to contain significant archaeology and it is identified as being part of Archaeological Research Design (ARD) that this area is unlikely to contain significant archaeology and it is identified as being part of Archaeological Research Design (ARD) that this area is unlikely to contain significant archaeology and it is identified as read of spectral archaeological potential. However, it is identified in the Archaeological Research Design (ARD) that this area is unlikely to contain significant archaeology and it is identified as the State of State of
- through the access gate, as a result, no impacts to 22 B ADD1 would occur. However, care would need to be taken if the layer of protective georabrics is placed. This would prevent any impacts resulting from the removal of the road base in the future
 - New compound a Beliance Station if the new compound is established outside of the SFR curtilage the non significant fabric would be impacted and nonew elements would be installed within the SFR curtilage. Any visual impact to Beliance Station would be negligible because the compound would be largely screened from view by the vegetation along the railway corridor and by the terrain

Delinesting the location of 528 P.DD2 at a Punchbow/ Station – The use of flagging tape or other protective barriers to delineate the boundary of 528 PAD02 would not result in any subsurface impacts and therefore would not cause impacts to the expected area of archaeological potential if you have any questions regarding the above advice please let us know

Jayden van Beek Senior Heritage Consultant

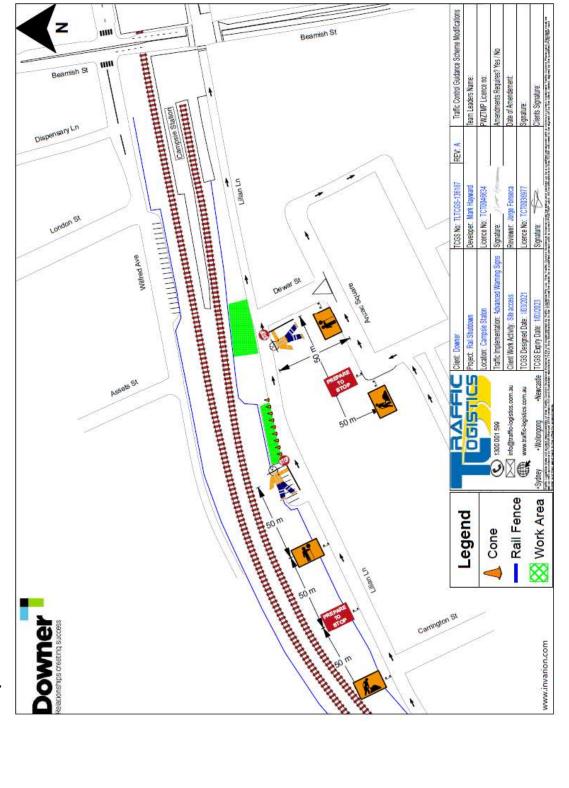
ARTEFACT

ratephones 61.2 9518 8411 Nobiles 0488 041.326 Adddess: Sults 56, Janes Bay Wharf, 26-34 Pirrams Rd, Pyrmont MSW 2009 Webs www.artefect.net.au



Appendix 6: Traffic Control Plans

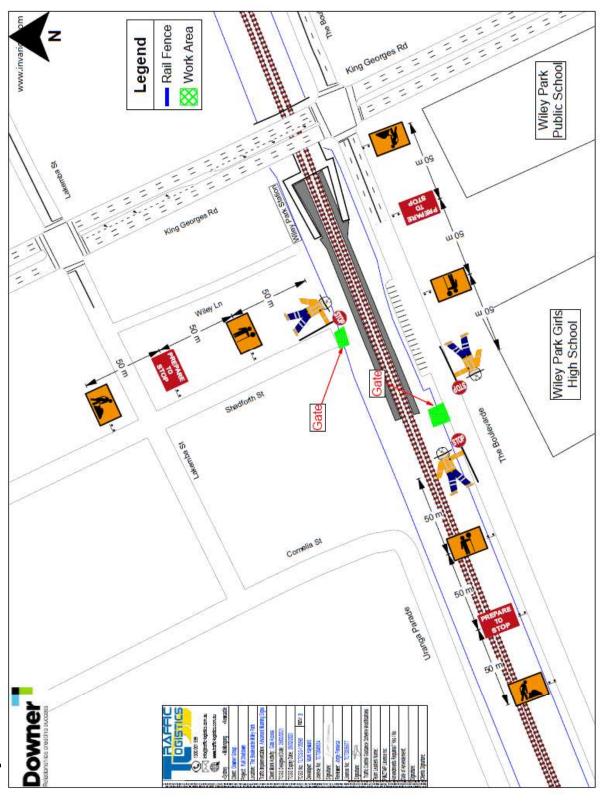
Campsie Station



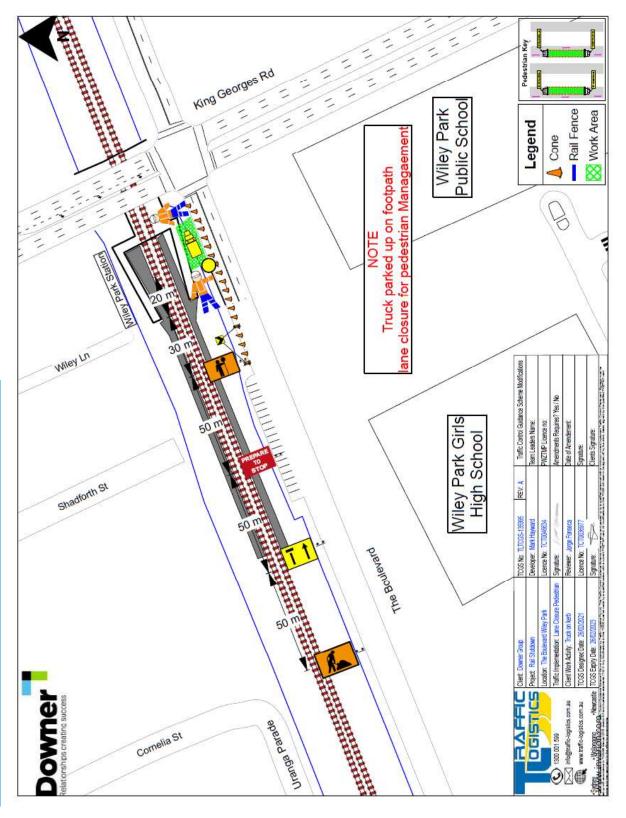
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Wiley Park Station

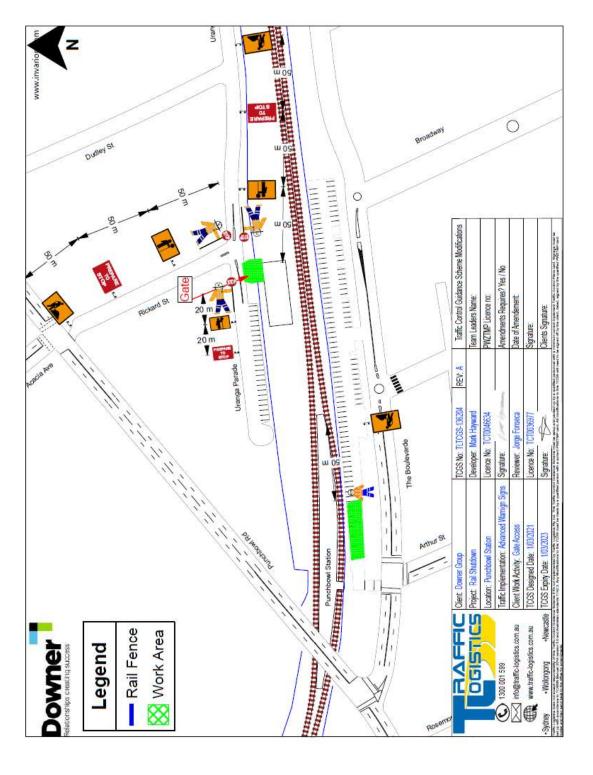






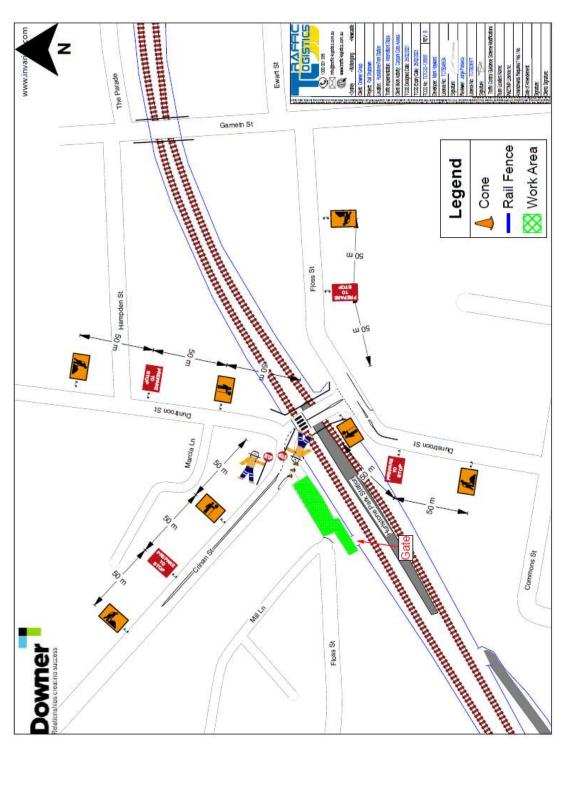
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Punchbowl Station



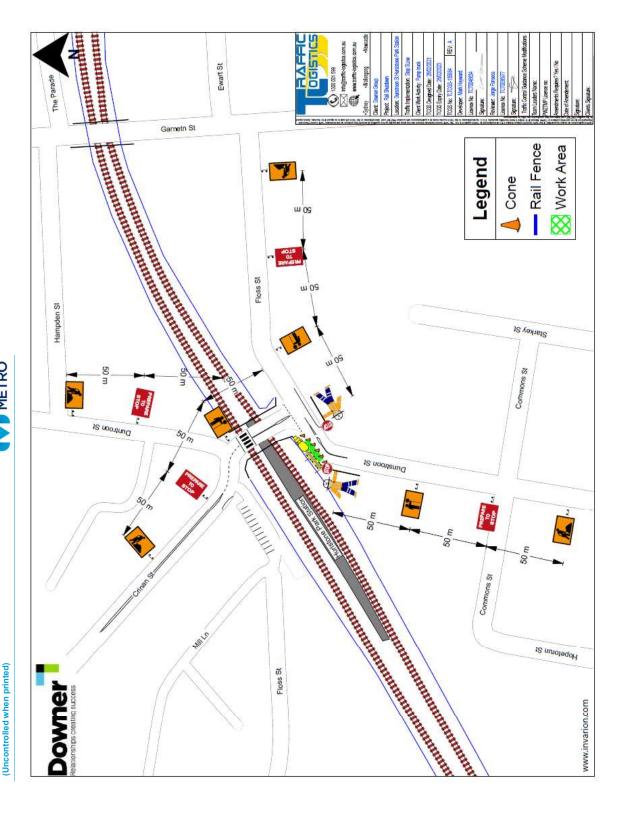


Hurlstone Park Station



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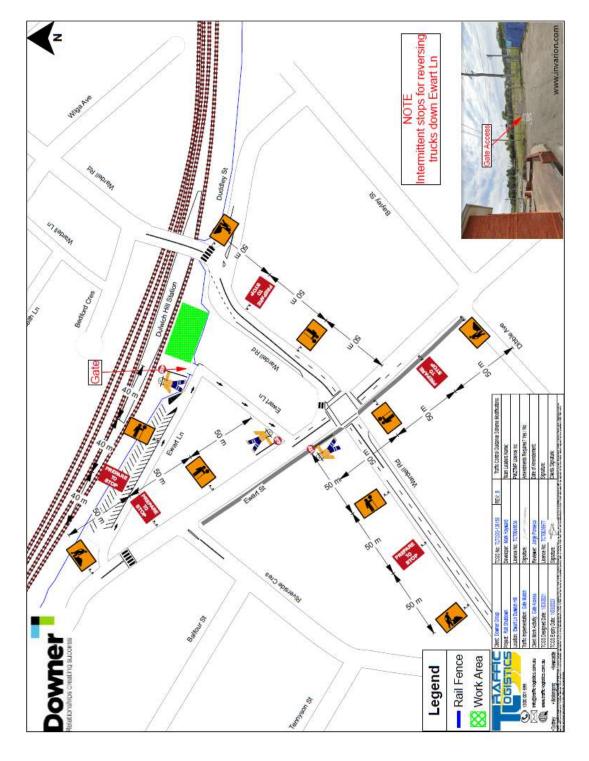




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Dulwich Hill Station

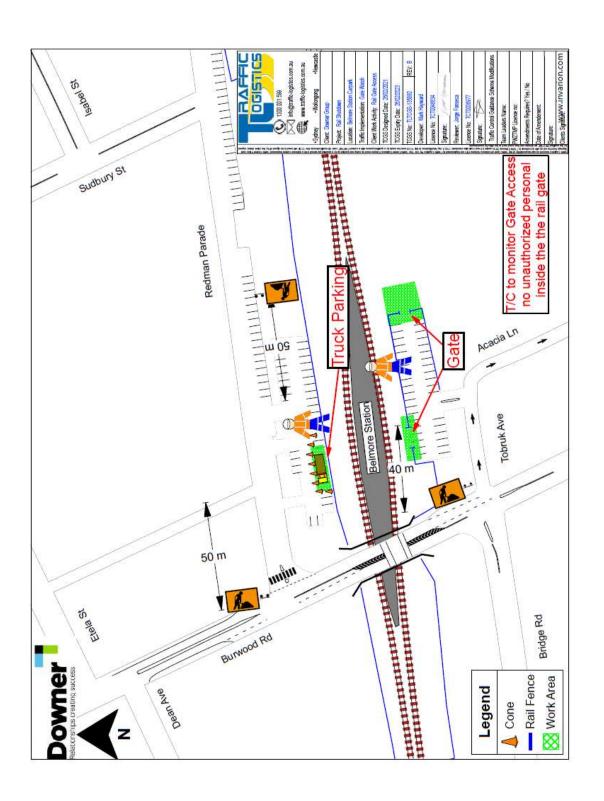


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Belmore Station





Page 111 of 113

(Uncontrolled when printed)



Appendix 7: Wiley Park ecologist Pre-clearance survey



17 March 2021

Jesse Novley Downer Group Pty Ltd T3 Triniti Business Campus 39 Delhi Road North Ryde NSW 2113

Pre-clearance Assessment: Southwest Metro Stations Upgrade – Wiley Park Station

Dear Jesse,

Cumberland Ecology was commissioned by Downer Group Pty Ltd to undertake a preclearance assessment of vegetation that is proposed to be removed (the 'proposed works') at Wiley Park Station for the Southwest Metro Stations Upgrade (the 'project'). The location of the proposed works is referred to as the 'subject site'. The pre-clearance assessment was conducted by an ecologist on 4 March 2021.

The purpose of this pre-clearance report is to assess the impacts of the proposed works on the biodiversity values of the subject site. Specifically, potential impacts on threatened species, populations and/or ecological communities listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Our key findings are that the proposed works will require the removal of 80 trees (~ 564 m² of vegetation), including 11 native and 69 exotic trees, as well as the removal of weeds and exotic-dominated groundcover. One of the trees, *Eucalyptus scoparia* (Wallangarra White Gum) is listed as Endangered under the BC Act and Vulnerable under the EPBC Act. However, this individual has been planted and occurs outside of its naturally occurring range.

The subject site provides suitable foraging habitat primarily for commonly occurring urban adapted native fauna in the form of flowering plants. Roosting habitat in the form of hollows, and Australian White Ibis (*Threskiornis moluccus*) nests have also been found within the subject site.

The results of the pre-clearance assessment are provided in **Appendix A**. Site photographs are included in **Appendix B** and a supporting figure is provided at the end of this letter. Should you have any queries, please do not hesitate to contact me on (02) 9868 1933.

Cumberland Ecology
PO Box 2474
Carlingford Court 2118
NSW Australia
Telephone (02) 9868 1933
ABN 14 106 144 647
Web: www.cumberlandecology.com.au



Yours sincerely,

Sally Dupont

Project Manager / Ecologist

sally.dupont@cumberlandecology.com.au

> duyl



APPENDIX A:

Pre-clearance Assessment: Wiley Park Station



A.1. Introduction

Cumberland Ecology was commissioned by Downer Group Pty Ltd (Downer) to undertake a pre-clearance assessment of vegetation that is proposed to be removed (the 'proposed works') at Wiley Park Station for the Southwest Metro Stations Upgrade (the 'project'). The proposed works occur within the rail corridor around Wiley Park Station, and are required in order install infrastructure required to facilitate the project. The location of the proposed works is identified in **Figure 1** and referred to hereafter as the 'subject site'.

A.2. Purpose

The purpose of the pre-clearance assessment was to survey the subject site in search for the occurrences of:

- Habitat features suitable for native fauna that will require supervision during clearance/removal works;
- Weeds of National Significance (WoNS) listed under the Australian Weeds Strategy and/or Priority Weeds listed under the NSW Biosecurity Act 2015 (Biosecurity Act); and
- Presence of Threatened Ecological Communities (TECs) and threatened flora and fauna listed under the NSW Biodiversity Conservation Act 2016 (BC Act) and/or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

None of the vegetation to be impacted was previously mapped by the Office of Environment and Heritage (OEH) as part of the Native Vegetation of the Sydney Metropolitan Area project (OEH 2013). The site inspection undertaken by Cumberland Ecology determined that the subject site is comprised entirely of planted Urban Native/Exotic vegetation.

A.3. Methodology

A site inspection was undertaken by an ecologist on 4 March 2021 in the company of Downer staff. The inspection involved traversing the subject site on foot and visually inspecting the areas where vegetation disturbance is proposed.

Field notes regarding the general condition and composition of the vegetation within the subject site were made. This included documenting the species and location of all vegetation to be disturbed with particular attention to native shrubs and trees, threatened species, and any habitat features such as hollows, nests and decorticating bark that could be utilised by native fauna. Photographs were taken at various locations of proposed disturbance to document the general condition and composition of the vegetation within the subject site.

A discussion on-site was carried out as required to ascertain the level of clearing (overstorey, understorey, groundcover), the nature of clearing (trimming, removal etc) and the extent of clearing within the subject site where disturbance works are to be located.



A.4. Key Findings

A.4.1. Planted Native/Exotic Vegetation

The subject site consists entirely of planted Urban Native/Exotic Vegetation comprised of a canopy of planted native species including *Eucalyptus scoparia* (Wallangarra White Gum) and the exotic species *Schinus molle* (Peppercorn) (**Photograph 1**). The midstorey includes planted native and locally indigenous small trees including *Pittosporum undulatum* (Sweet Pittosporum) as well as the exotic *Ligustrum lucidum* (Broad-leaved Privet), *Cestrum parqui* (Green Cestrum), *Phoenix canariensis* (Canary Island Date Palm) and the climbing *Anredera cordifolia* (Madeira Vine) (**Photograph 2-3**). The ground layer has previously been cleared and is dominated by weeds such as *Bidens pilosa* (Cobbler's Legs), *Cirsium vulgare* (Spear Thistle), *Onopordum acanthium* (Scotch Thistle), *Asparagus aethiopicus* (Asparagus Fern) and *Tradescantia fluminensis* (Wandering Jew) (**Photograph 4**).

One individual *Eucalyptus scoparia* (Wallangarra White Gum) has been planted at Wiley park Station, which is listed as Endangered under the BC Act and Vulnerable under the EPBC Act. This individual has been planted and occurs outside of its naturally occurring range, which is restricted to three known locations near Tenterfield (DPIE 2019)

The total area of planted Urban Native/Exotic Vegetation to be impacted within the subject site is approximately 564 m² and the removal of 11 native and 69 exotic trees/shrubs, as well as the removal of weeds and exotic-dominated groundcover.

Phoenix canariensis (Canary Island Date Palm), Ligustrum lucidum (Broad-leaved Privet), Onopordum acanthium (Scotch Thistle), Asparagus aethiopicus (Asparagus Fern), Anredera cordifolia (Madeira Vine), Cestrum parqui (Green Cestrum) and Tradescantia fluminensis (Wandering Jew) are listed under the Greater Sydney Regional Strategic Weed Management Plan 2017-2022 (2017).

The details of the vegetation proposed to be impacted are provided in **Table 1** below and shown in **Figure 1**.



Table 1 Details of vegetation proposed to be impacted

Tree ID	Scientific Name	Common Name	Proposed Works	No. of Individuals	(cm)	Height (m)	Canopy/Area to be impacted (m²)	Native/Exotic Habitat	Habitat
-	Ligustrum lucidum	Broad-leaved Privet	Removal	к	10	9	25	Exotic	1
2	Schinus molle	Peppercorn	Removal	_	35	8	15	Exotic	ı
3	Schinus molle	Peppercorn	Removal	_	35	10	20	Exotic	1
4	Phoenix canariensis	Canary Island Date Palm	Removal	2	40	2.5	6	Exotic	ı
5	Schinus molle	Peppercorn	Removal	-	20	10	12	Exotic	3 medium hollows, 1 ibis nest (1 egg)
9	Ligustrum lucidum	Broad-leaved Privet	Removal	8	10	8	15	Exotic	1 ibis nest (empty)
7	Ligustrum lucidum	Broad-leaved Privet	Removal	8	2	9	30	Exotic	ı
8	Pittosporum undulatum	Sweet Pittosporum	Removal	_	<5	2.5	2	Native	ı
6	Schinus molle	Peppercorn	Removal	_	30	10	16	Exotic	1
10	Schinus molle	Peppercorn	Removal	_	30	10	9	Exotic	1 ibis nest (chicks)
	Ligustrum lucidum	Broad-leaved Privet	Removal	8	2	8	35	Exotic	ı
12	Ligustrum lucidum	Broad-leaved Privet	Removal	4	2	8	12	Exotic	1 ibis nest (empty)
13	Camellia sp.	Camellia	Removal	3	<5	3	9	Exotic	ı
14	Eucalyptus scoparia	Wallangarra White Gum	Removal	~	35	20	20	Native	
15	Pittosporum undulatum	Sweet Pittosporum	Removal	2	<5	2.5	2	Native	
16	Ligustrum lucidum	Broad-leaved Privet	Removal	8	10	5	20	Exotic	1 ibis nest (empty)



	:	:					:	!	
Tree ID	Scientific Name	Common Name	Proposed Works	No. of Individuals	Cm)	Height (m)	Canopy/Area to be impacted (m²)	Native/Exotic Habitat	Habitat
17	Ligustrum lucidum	Broad-leaved Privet	Removal	10	10	9	40	Exotic	
18	Schinus molle	Peppercorn	Removal	4	40	7	5	Exotic	ı
19	Ligustrum lucidum	Broad-leaved Privet	Removal	2	5	8	6	Exotic	ı
20	Schinus molle	Peppercorn	Removal	2	35	12	25	Exotic	1
21	Schinus molle	Peppercorn	Removal	1	35	12	10	Exotic	2 ibis nests (6 eggs)
22	Ligustrum lucidum	Broad-leaved Privet	Removal	4	2	9	45	Exotic	2 ibis nests (3 eggs)
23	Schinus molle	Peppercorn	Removal	~	40	1	25	Exotic	ı
24	Phoenix canariensis	Canary Island Date Palm	Removal	2	15	4	10	Exotic	ı
25	Pittosporum undulatum	Sweet Pittosporum	Removal	2	5	2	5	Native	3 ibis nests (empty)
26	Pittosporum undulatum	Sweet Pittosporum	Removal	2	10	8	15	Native	1 ibis nest (empty)
27	Schinus molle	Peppercorn	Removal	2	20	12	25	Exotic	2 medium and 2 small hollows, 1 ibis nest (3 eggs)
28	Schinus molle	Peppercorn	Removal	_	100	15	40	Exotic	ı
29	Pittosporum undulatum	Sweet Pittosporum	Removal	~	15	9	20	Native	ı
30	Pittosporum undulatum	Sweet Pittosporum	Removal	2	10	4	15	Native	1
31	Schinus molle	Peppercorn	Removal	1	45	12	30	Exotic	1 ibis nest (chicks)
TOTAL				80			564		



A.4.2. Habitat Assessment

Five medium and two small hollows were observed in two *Schinus molle* (Peppercorn) individuals which may provide suitable roosting habitat for native species such as Ringtail Possums, Brushtail Possums and microchiropteran bats (**Photograph 5**). Furthermore, a dozen Australian White Ibis (*Threskiornis moluccus*) nests, nesting adults, chicks and eggs were present within the vegetation proposed to be removed in the subject site (**Photograph 6**). The remaining vegetation proposed to be removed would likely only be utilised on occasion for foraging purposes by commonly occurring urban-adapted species.

A.4.3. Impacts on Vegetation

All vegetation within the subject site exists as isolated narrow linear patches of vegetation that are exposed to a high degree of edge effects being bound by the rail corridor and/or developed areas. Most of the subject site has been previously cleared and contains areas with native regrowth, planted native and exotic vegetation.

A.4.4. Impacts to Threatened Ecological Communities

The vegetation observed during the survey consists entirely of planted Urban Native/Exotic which does not conform to any TEC under either BC Act or EPBC Act.

A.4.5. Impacts to Threatened Species

A.4.5.1. Threatened Flora

One threatened flora species, *Eucalyptus scoparia* (Wallangarra White Gum) will be removed by the project. This species has been planted and is not located within its naturally occurring range. Therefore, the conservation significance of this tree is not considered to be significant. No other threatened flora species were recorded during the survey.

The majority of the groundcover that is proposed to be disturbed has been previously cleared and is comprised of exotic species. Due to the condition of the understorey, the subject site is considered unlikely to provide suitable habitat for any threatened flora species known to occur in the locality (5 km radius of the subject site).

A.4.5.2. Threatened Fauna

Due to the disturbed nature of the subject site and its exposure to edge effects being located adjacent to the rail corridor, the habitat present is not considered to be important to the long-term survival of any threatened fauna known to occur in the locality.

A.4.6. Offsetting Requirements

Provision E4 of the Sydney Metro Planning Approval stipulates the following:

"The CSSI must be designed to retain as many trees as possible. Where trees are to be removed, the proponent must provide a 2:1 ratio replacement of trees. Replacement trees must be planted within the project boundary or on public land up to 500 m from the project boundary. Replacement tree plantings can be undertaken beyond 500 m on public land within the local government areas to which the CSSI approval applies if requested by the relevant council(s) or where no more practicable land for planting can be found within and up to 500 m from the



CSSI boundary. The location of replacement trees must be determined on consultation with the relevant council(s)."

In accordance with Provision E4 of the Sydney Metro Planning Approval for the project, all trees proposed for removal must for offset at a ratio of 2:1. Consequently, 160 trees must be planted in order to offset the 80 trees proposed to be removed.

A.5. Recommendations

Recommendations based on the findings of the pre-clearance assessment conducted by Cumberland Ecology are outlined below. It is expected that any clearance works undertaken within the subject site are done in accordance with any relevant approvals and protocols.

A.5.1. Threatened Flora

There are no recommendations for threatened flora as the only threatened flora species recorded has been planted well outside of its naturally occurring range. No other threatened flora species are considered likely to occur.

A.5.2. Vegetation Clearance

The limits of clearing should be clearly demarcated to ensure areas of vegetation outside of the subject site are not impacted. All clearing staff should be informed of the clearing boundary prior to undertaking works.

As per Provision B6 of the Sydney Metro Planning Approval for the project, an ecologist is required to be present during the clearing of native vegetation or removal of potential fauna habitat and habitat resources should be salvaged where practicable. Consequently and due to the presence of hollows and active nests, an ecologist should be present for the removal of the vegetation within the subject site. Prior to any vegetation disturbance, all nests are to be inspected by the attending ecologist using an Elevated Work Platform (EWP). The ecologist will carefully remove the entire nest, if possible, or any eggs and chicks immediately prior to the removal of the habitat tree. If no EWP is available, a climbing arborist can remove the nest and any resident chicks/eggs under the guidance of the attending ecologist. Chicks/eggs will then be relinquished to a qualified wildlife carer (WIRES) or taken to the nearest veterinary clinic for treatment if injured. Since native fauna is likely to be encountered, in addition to an ecologist, it is highly recommended that a qualified wildlife carer also be present on the day of clearing to offer prompt assistance and ensure the wellbeing of the rescued fauna.

Once all nests have been inspected and any resident fauna rescued, trees should be vigorously agitated immediately prior to felling in order to encourage any remaining potential resident fauna, such as roosting adult ibis and possums, to self-relocate. Habitat trees containing hollows will be thoroughly inspected by an ecologist immediately following felling. Should fauna be inadvertently injured, it will be taken to the nearest veterinary clinic for treatment, or, if the injuries are deemed too severe, humanely euthanised on site by the attending ecologist. All work should cease until the ecologist has returned and is satisfied that no fauna is likely to be impacted.



A.5.3. Priority Weeds and WoNS

Due to the presence of Priority weeds and WoNS, it is recommended that all cleared vegetation not be reused within or adjacent to the subject site as mulch. All cleared vegetation and topsoil are to be disposed of at an approved green waste facility and in accordance with guidelines identified in the *Greater Sydney Regional Strategic Weed Management Plan 2017-2022* (2017).

A.5.4. Offsetting

As described in **Section A.4.5**, a total number of 160 trees are required to be planted in order to offset the 80 trees being proposed to be removed as part of the project in order to satisfy the offsetting requirements specified in the Sydney Metro Planning Approval for the project. Species recommended for plantings include a selection from the Canterbury-Bankstown approved list, such as *Acacia falcata* (Sickle Wattle), *Acacia myrtifolia* (Myrtle Wattle), *Callistemon linearis* (Narrow-leaved Bottlebrush), *Banksia spinulosa* (Hairpin Banksia), *Grevillea sericea* (Pink Spider Flower), *Eucalyptus tereticornis* (Forest Red Gum), *Pittosporum undulatum* (Sweet Pittosporum) and *Glochidion ferdinandi* (Cheese Tree).

A.5.5. Installation of Nest Boxes

Since two habitat trees containing five medium hollows and two small hollows are proposed to be removed, it is recommended that seven nest boxes be installed in the surrounding vegetation being retained. Five possum boxes and two microchiropteran bats are recommended as these are the most likely species to utilise the current hollows. The nest boxes should be made of wooden material and installed at a height of approximately 4 m. Furthermore, the nest boxes should face either a north-eastern or south-western direction in order to minimise exposure to the harsh, direct sunlight from the afternoon sun.

A.6. Conclusion

The proposed works require the removal of vegetation within the rail corridor around Wiley Park Station in order to install infrastructure to allow for the Southwest Metro Stations Upgrade. The proposed works will impact on approximately 564 m² of planted Urban Native/Exotic Vegetation through the removal of 80 trees, including 11 natives and 69 exotics, as well as the removal of weeds and exotic-dominated groundcover.

Aside from seven hollows and a dozen ibis nests, the vegetation to be impacted offers little ecological value other than potential foraging habitat for urban tolerant, native fauna species.

Other than one non-endemic *Eucalyptus scoparia*, no threatened plant species were observed during the site inspection and none are likely to occur due to the degraded nature of the subject site.

No threatened fauna are likely to be dependent on the habitat within the subject site to be impacted. Therefore, the proposed works are unlikely to impact on any threatened fauna species that may utilise the subject site periodically as part of a much broader foraging range.

If all mitigation measures recommended in **Section A.5** are implemented, the proposed works are unlikely to have a significant impact on any of the biodiversity values of the subject site or surrounding areas.



A.7. References

DPIE. 2019. Wallangarra White Gum (*Eucalyptus scoparia*) - Profile. Department of Planning, Industry and Environment - Environment, Energy and Science Group, Sydney.

LLS: Greater Sydney, editor. 2017. Greater Sydney Regional Strategic Weed Management Plan 2017 - 2022. Local Land Services NSW. OEH. 2013. The Native Vegetation of the Sydney Metropolitan Area. Office of Environment and Heritage, Sydney.



APPENDIX B:

Photographs

Photograph 1 Canopy vegetation of the subject site dominated by *Schinus molle* (Peppercorn)



Photograph 2 Midstorey dominated by Ligustrum lucidum (Broad-leaved Privet)



Photograph 3 Anredera cordifolia (Madeira Vine) infestation within the subject site



Photograph 4 Exotic dominated groundcover within the subject site







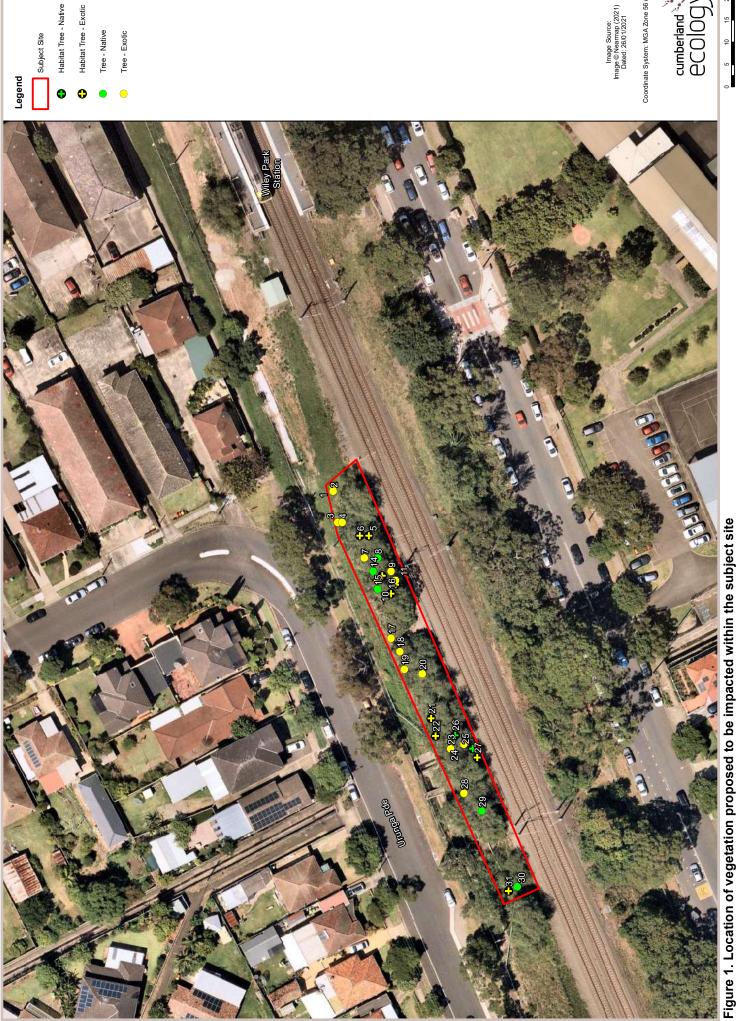
Photograph 6 Australian White Ibis nest present within the subject site





FIGURES





1



Appendix 8: Hurlstone Park ecologist Pre-clearance survey



17 March 2021

Jesse Novley
Downer Group Pty Ltd
T3 Triniti Business Campus
39 Delhi Road
North Ryde NSW 2113

Pre-clearance Assessment: Southwest Metro Stations Upgrade – Hurlstone Park Station

Dear Jesse.

Cumberland Ecology was commissioned by Downer Group Pty Ltd to undertake a preclearance assessment of vegetation that is proposed to be removed (the 'proposed works') at Wiley Park Station for the Southwest Metro Stations Upgrade (the 'project'). The location of the proposed works is referred to as the 'subject site'. The pre-clearance assessment was conducted by an ecologist on 04 March 2021.

The purpose of this pre-clearance report is to assess the impacts of the proposed works on the biodiversity values of the subject site. Specifically, potential impacts on native threatened species, populations and/or ecological communities listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Our key findings are that the proposed works will require the removal of 56 trees (~ 305 m² of vegetation), including ten native, 46 exotic trees and one stag, as well as the removal weeds and exotic-dominated groundcover. None of this vegetation is listed under the BC Act or EPBC Act.

The subject site provides suitable foraging habitat primarily for commonly occurring urban adapted native fauna in the form of flowering plants. No important roosting habitat such as hollows or nests were recorded within the subject site.

The results of the pre-clearance assessment are provided in **Appendix A**. Site photographs are included in **Appendix B** and a supporting figure is provided at the end of this letter. Should you have any queries, please do not hesitate to contact me on (02) 9868 1933.

Cumberland Ecology
PO Box 2474
Carlingford Court 2118
NSW Australia
Telephone (02) 9868 1933
ABN 14 106 144 647
Web: www.cumberlandecology.com.au



Yours sincerely,

Sally Dupont

Project Manager / Ecologist

sally.dupont@cumberlandecology.com.au

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APPENDIX A:

Pre-clearance Assessment: Hurlstone Park Station



A.1. Introduction

Cumberland Ecology was commissioned by Downer Group Pty Ltd (Downer) to undertake a pre-clearance assessment of vegetation that is proposed to be removed (the 'proposed works') at Hurlstone Park Station for the Southwest Metro Stations Upgrade (the 'project'). The proposed works occur within the rail corridor around Hurlstone Park Station, and are required in order install infrastructure required to facilitate the project. The location of the proposed works is identified in **Figure 1** and referred to hereafter as the 'subject site'.

A.2. Purpose

The purpose of the pre-clearance assessment was to survey the subject site in search for the occurrences of:

- Habitat features suitable for native fauna that will require supervision during clearance/removal works;
- Weeds of National Significance (WoNS) listed under the Australian Weeds Strategy and/or Priority Weeds listed under the NSW Biosecurity Act 2015 (Biosecurity Act); and
- Presence of Threatened Ecological Communities (TECs) and threatened flora and fauna.

None of the vegetation to be impacted was previously mapped by the Office of Environment and Heritage (OEH) as part of the Native Vegetation of the Sydney Metropolitan Area project (OEH 2013). The site inspection undertaken by Cumberland Ecology determined that the subject site is comprised entirely of planted Urban Native/Exotic vegetation.

A.3. Methodology

A site inspection was undertaken by an ecologist on 04 March 2021 in the company of Downer staff. The inspection involved traversing the subject site on foot and visually inspecting the areas where vegetation disturbance is proposed.

Field notes regarding the general condition and composition of the vegetation within the subject site were made. This included documenting the species and location of all vegetation to be disturbed with particular attention to native shrubs and trees, threatened species, and any habitat features such as hollows, nests and decorticating bark that could be utilised by native fauna. Photographs were taken at various locations of proposed disturbance to document the general condition and composition of the vegetation within the subject site.

A discussion on-site was carried out as required to ascertain the level of clearing (overstorey, understorey, groundcover), the nature of clearing (trimming, removal etc) and the extent of clearing within the subject site where disturbance works are to be located.



A.4. Key Findings

A.4.1. Impacts on Vegetation

All vegetation within the subject site exists as isolated narrow linear patches of vegetation that are exposed to a high degree of edge effects being bound by the rail corridor and/or developed areas. Most of the subject site has been previously cleared and contains areas with native regrowth, planted native and exotic vegetation.

A.4.1.1. Planted Native/Exotic Vegetation

The subject site consists entirely of planted Urban Native/Exotic Vegetation comprised of a canopy of planted native species including *Eucalyptus botryoides* (Southern Mahogany) and the exotic species *Cinnamomum camphora* (Camphor Laurel) and *Morus alba* (White Mulberry) (**Photographs 1** and **2**). The midstorey includes planted native and locally indigenous small trees including *Pittosporum undulatum* (Sweet Pittosporum), Acacia saligna (Golden Wreath Wattle) as well as the exotic species *Ligustrum lucidum* (Broad-leaved Privet), *Cestrum parqui* (Green Cestrum), *Ailanthus altissima* (Tree of Heaven), *Robinia pseudoacacia* (Black Locust) and *Phoenix canariensis* (Canary Island Date Palm) and the climbing *Anredera cordifolia* (Madeira Vine), *Hedera helix* (English lvy) and *Lantana camara* (Lantana) (**Photograph 3**). The ground layer has previously been cleared and is dominated by weeds such as *Bidens pilosa* (Cobbler's Legs), *Asparagus aethiopicus* (Asparagus Fern) and *Trifolium repens* (White clover) (**Photograph 4**).

The total area of planted Urban Native/Exotic Vegetation to be impacted within the subject site is approximately 305 m² and the removal of ten native and 46 exotic trees/shrubs and one stag, as well as the removal of weeds and exotic-dominated groundcover.

Phoenix canariensis (Canary Island Date Palm), Cinnamomum camphora (Camphor Laurel), Ligustrum lucidum (Broad-leaved Privet), Ailanthus altissima (Tree of Heaven), Robinia pseudoacacia (Black Locust), Senna pendula (Easter Cassia), Gleditsia triacanthos (Honey Locust), Lantana camara (Lantana), Asparagus aethiopicus (Asparagus Fern), Cestrum parqui (Green Cestrum) and Anredera cordifolia (Madeira Vine) are listed under the Greater Sydney Regional Strategic Weed Management Plan 2017-2022 (LLS 2019).

The details of the vegetation proposed to be impacted are provided in **Table 1** below and shown in **Figure 1**.



Table 1 Details of vegetation proposed to be impacted

Tree ID	Scientific Name	Common Name	Proposed Works	No. of Individuals	DBH (cm)	Height (m)	Canopy/Area to be impacted (m²)	Native/Exotic
	Cinnamomum camphora	Camphor Laurel	Removal	4	10	7	25	Exotic
2	Ligustrum lucidum	Broad-leaved Privet	Removal	2	10	5	10	Exotic
3	Ligustrum lucidum	Broad-leaved Privet	Removal	3	5	4	5	Exotic
4	Ailanthus altissima	Tree of Heaven	Removal	_	10	9	∞	Exotic
2	Robinia pseudoacacia	Black Locust	Removal	3	10	7	15	Exotic
9	Cinnamomum camphora	Camphor Laurel	Removal	_	15	12	12	Exotic
7	Senna pendula	Easter Cassia	Removal	8	<5	2	20	Exotic
8	Gleditsia triacanthos	Honey Locust	Removal	_	<5	1.5	_	Exotic
6	Eucalyptus botryoides	Southern Mahogany	Removal	_	09	18	35	Native
10	Phoenix canariensis	Canary Island Date Palm	Removal	_	10	1.5	4	Exotic
11	Cinnamomum camphora	Camphor Laurel	Removal	1	100	16	30	Exotic
12	Phoenix canariensis	Canary Island Date Palm	Removal	_	10	_	_	Exotic
13	Ligustrum lucidum	Broad-leaved Privet	Removal	2	2	2	15	Exotic
14	Ailanthus altissima	Tree of Heaven	Removal	8	10	8	40	Exotic
15	Cinnamomum camphora	Camphor Laurel	Removal	2	2	10	15	Exotic
16	Morus alba	White Mulberry	Removal	2	20	8	20	Exotic
17	Pittosporum undulatum	Sweet Pittosporum	Removal	—	10	4	5	Native



Tree ID	Scientific Name	Common Name	Proposed Works	No. of Individuals	DBH (cm)	Height (m)	DBH Height Canopy/Area (cm) (m) to be impacted (m²)	Native/Exotic
18	Acacia saligna	Golden Wreath Wattle	Removal	3	15	7	25	Native
19	1	Stag	Removal	~	15	4	ı	1
20	Acacia saligna	Golden Wreath Wattle	Removal	2	2	9	6	Native
21	Grevillea sp.	Grevillea	Removal	_	2	9	2	Native
22	Acacia saligna	Golden Wreath Wattle	Removal	2	10	2	8	Native
23	Yucca sp.	Yucca	Removal	2	ı	0.4	1	Exotic
TOTAL				99			305	



A.4.2. Impacts to Threatened Ecological Communities

The vegetation observed during the survey consists entirely of Planted Native/Exotic Vegetation which does not conform to any Threatened Ecological Community under either the BC Act or EPBC Act.

A.4.3. Impacts to Threatened Species

A.4.3.1. Threatened Flora

No threatened flora species were recorded during the survey.

The majority of the groundcover that is proposed to be disturbed has been previously cleared and is comprised of exotic species. Due to the condition of the understorey, the subject site is considered unlikely to provide suitable habitat for any threatened flora species known to occur in the locality (5 km radius of the subject site).

A.4.3.2. Threatened Fauna

Due to the disturbed nature of the subject site and its exposure to edge effects being located adjacent to the rail corridor, the habitat present is not considered to be important to the long-term survival of any threatened fauna known to occur in the locality.

A.4.4. Habitat Assessment

No native fauna species were recorded during the survey. Furthermore, no nests, hollows, fissures or decorticating bark were recorded amongst the vegetation assessed. The vegetation proposed to be removed or trimmed would likely only be utilised on occasion for foraging purposes by commonly occurring urbanadapted species.

A.4.5. Offsetting Requirements

Provision E4 of the Sydney Metro Planning Approval stipulates the following:

"The CSSI must be designed to retain as many trees as possible. Where trees are to be removed, the proponent must provide a 2:1 ratio replacement of trees. Replacement trees must be planted within the project boundary or on public land up to 500 m from the project boundary. Replacement tree plantings can be undertaken beyond 500 m on public land within the local government areas to which the CSSI approval applies if requested by the relevant council(s) or where no more practicable land for planting can be found within and up to 500 m from the CSSI boundary. The location of replacement trees must be determined on consultation with the relevant council(s)."

In accordance with Provision E4 of the Sydney Metro Planning Approval for the project, all trees proposed for removal must for offset at a ratio of 2:1. Consequently, 112 trees must be planted in order to offset the 56 trees proposed to be removed.



A.5. Recommendations

Recommendations based on the findings of the pre-clearance assessment conducted by Cumberland Ecology are outlined below. It is expected that any clearance works undertaken within the subject site are done in accordance with any relevant approvals and protocols.

A.5.1. Threatened Flora

There are no recommendations for threatened flora as the only threatened flora species recorded has been planted well outside of its naturally occurring range. No other threatened flora species are considered likely to occur.

A.5.2. Vegetation Clearance

The limits of clearing should be clearly demarcated to ensure areas of vegetation outside of the subject site are not impacted. All clearing staff should be informed of the clearing boundary prior to undertaking works.

As per Provision B6 of the Sydney Metro Planning Approval for the project, an ecologist is required to be present during the clearing of native vegetation or removal of potential fauna habitat and habitat resources should be salvaged where practicable. However, since no fauna habitat was found to be present and due to the limited number of natives proposed to be removed, the presence of an ecologist is not deemed necessary. If during clearing an nests and/or possum dreys are observed then all works should cease until an ecologist has inspected the area confirmed that the vegetation is okay to clear. This scenario is considered to be unlikely and therefore the supervision of vegetation removal by an ecologist is not recommended, but an ecologist should be available on an 'on-call' basis during the works.

A.5.3. Priority Weeds and WoNS

Due to the presence of Priority weeds and WoNS, it is recommended that cleared vegetation not be reused within or adjacent to the subject site as mulch. All cleared vegetation and topsoil are to be disposed of at an approved green waste facility and in accordance with guidelines identified in the *Greater Sydney Regional Strategic Weed Management Plan 2017-2022* (LLS 2019).

A.5.4. Offsetting

As described in **Section A.4.5**, a total number of 112 trees are required to be planted in order to offset the 56 native trees being proposed to be removed as part of the project in order to satisfy the offsetting requirements specified in the Sydney Metro Planning Approval for the project. Species recommended for plantings include a selection from the Canterbury-Bankstown approved list, such as *Acacia falcata* (Sickle Wattle), *Acacia myrtifolia* (Myrtle Wattle), *Callistemon linearis* (Narrow-leaved Bottlebrush), *Banksia spinulosa* (Hairpin Banksia), *Grevillea sericea* (Pink Spider Flower), *Eucalyptus tereticornis* (Forest Red Gum), *Pittosporum undulatum* (Sweet Pittosporum) and *Glochidion ferdinandi* (Cheese Tree).



A.6. Conclusion

The proposed works require the removal of vegetation within and surrounding the rail corridor around Wiley Park Station in order to install infrastructure to allow for the Southwest Metro Stations Upgrade. The proposed works will impact on approximately 305 m² of planted Urban Native/Exotic Vegetation through the removal of 56 trees, including ten native, 46 exotic trees and one stag, as well as the removal of weeds exotic-dominated groundcover.

The vegetation to be impacted offers little ecological value other than potential foraging habitat for urban tolerant, native fauna species.

No threatened plant species were observed during the site inspection and none are likely to occur due to the degraded nature of the subject site.

No threatened fauna are likely to be dependent on the habitat within the subject site to be impacted. Therefore, the proposed works are unlikely to impact on any threatened fauna species that may utilise the subject site periodically as part of a much broader foraging range.

If all mitigation measures recommended in **Section A.5** are implemented, the proposed works are unlikely to have a significant impact on any of the biodiversity values of the subject site or surrounding areas.

A.7. References

LLS: Greater Sydney, Ed. (2019). Greater Sydney Regional Strategic Weed Management Plan 2017 - 2022, Local Land Services NSW.



APPENDIX B:

Photographs

Photograph 1 Eucalyptus botryoides (Southern Mahogany) proposed to be removed



Photograph 2 Cinnamomum camphora (Camphor Laurel) proposed to be removed

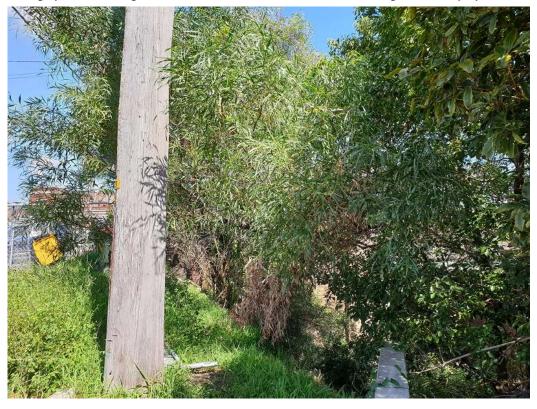




Photograph 3 Exotic-dominated midstorey vegetation proposed to be removed within the subject site



Photograph 4 Acacia saligna (Golden Wreath Wattle) and exotic-dominated groundcover proposed to be removed





FIGURES



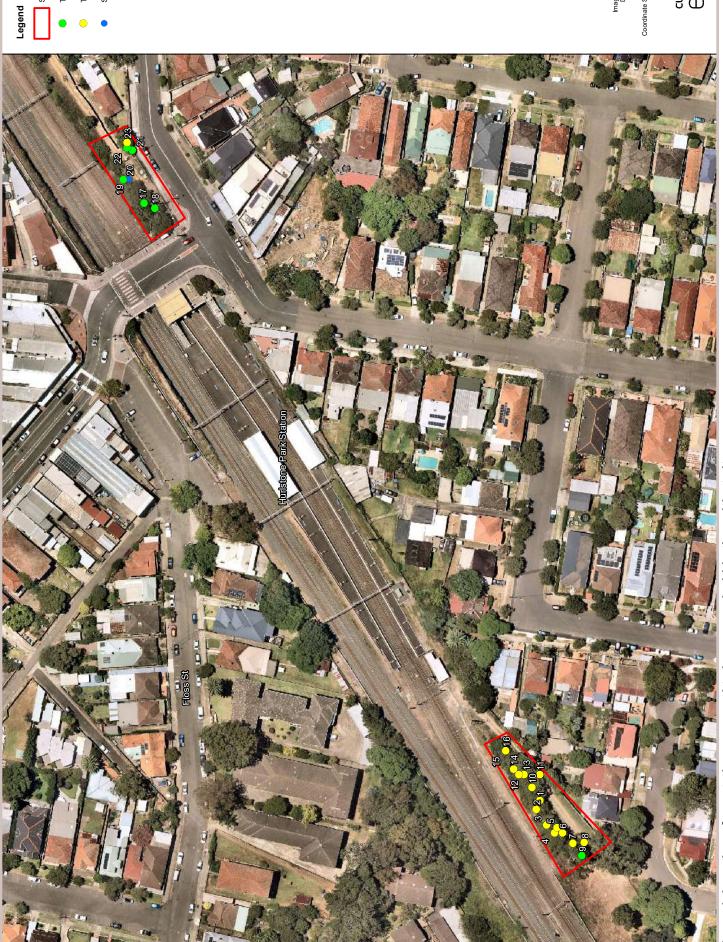


Figure 1. Location of vegetation proposed to be removed within the subject site

ate System: MGA Zone 56 (GDA 94)

cumberland