




SITE ENVIRONMENTAL MANAGEMENT PLAN (SEMP)

	Note: If required under Section 5.4 of this form, the completed form must be provided to an environment support person for assessment and endorsement no later than 4 weeks prior to the planned commencement date.
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1) Project or Program Details


Project/Program Name		Major Periodic Maintenance
Project/Program No		P.0041190 Tarana station activation – stage 2
Scope of Works		Provision of accessible toilet & restoration of station building / SM residence Including floor structure, rendering of walls, repairs to ceilings, new roof to part of building, electrical works, drainage works, fencing, windows, doors
Location (Line, KM, Suburb and/or Area)		Main West
Attach applicable Environmental Work Method Statement (EWMS)	EWMS Number	EWMS Title
	EMS-09-EW-0261	Pipe Drainage
	EMS-09-EW-0267	Fencing
	EMS-09-EW-0296	Re-cladding Roofs and Walls
	EMS-09-EW-0298	Station Facility Service Provision and Internal Removal
	EMS-09-EW-0299	Station Refresh
	EMS-09-EW-0300	Hazardous Materials removal and replacement
Is any of the proposed work outside of the EWMS' scope?	<input checked="" type="checkbox"/> No: Continue to next question <input type="checkbox"/> Yes:  Contact your environmental officer to determine how environmental impact assessment for the works can proceed.	
Does this work have any steps or equipment that are not covered by the EWMS?	<input checked="" type="checkbox"/> No: Continue to next question <input type="checkbox"/> Yes: <Describe>	
Is the work part of a larger job?	<input checked="" type="checkbox"/> No: Continue to Part 2 <input type="checkbox"/> Yes: <Provide details of larger job and relationship to these works>	
	 Contact your local environment support staff for assistance. The larger project may have environmental controls that need to be applied to this job. All relevant conditions and controls need to be added to PART 5 Summary Consultation and Mitigation Measures .	

2) Project Timing and Location(s)

2.1 Project Timing

Activity	Detail dates and work hours, noting in particular any 'Out of hour' periods (that is, outside of 7am–6pm Monday to Friday or 8am–1pm Saturday)
Works/program commencement:	
Accessible toilet & waiting area Restoration of station building & SM residence	Monday 20 June 2022 – Friday 10 February 2023 0700-1800 Monday- Friday Monday 20 June 2022 - Friday 18 April 2023 0700-1800 Monday – Friday

2.2 Existing Environment

 <p><i>Note: Where multiple sites are to be covered by this form each location is to be identified separately in the following question set (e.g. Site 1, Site 2, etc)</i></p>	
<p>Site 1: Site description:</p>	
<p>Insert or attach a photo(s) of the site:</p> <p>If outside the AOZ: Describe the physical extent of works, the environmental features of the site and the current land use.</p>	<p>Local environment includes:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> In, or near, residential area <input checked="" type="checkbox"/> In, or near, customer areas <input type="checkbox"/> Tunnel/underground location <input type="checkbox"/> Easement/off corridor areas <input type="checkbox"/> Open spaces <input type="checkbox"/> Sparsely vegetated spaces <input type="checkbox"/> Thickly vegetated spaces <input type="checkbox"/> In, or near, waterways or drains <input type="checkbox"/> Other (specify):



Tarana site map



View from footbridge

3) Consultation requirements

3.1 Consultation with adjoining land managers


Do the works require consultation with other land managers?	Comments
Will the works result in substantial impacts on Council related infrastructure and services or locally listed heritage items? (i.e. local heritage items, stormwater, traffic, sewerage, water or impact on public place or footpaths, or works that impact flood prone areas or coastal areas)	<input checked="" type="checkbox"/> No: Continue to next question <input type="checkbox"/> Yes: Identify requirements and how they were addressed:
Are the works adjacent to land reserved under the <i>National Parks & Wildlife Act 1974</i> ?	<input checked="" type="checkbox"/> No: Continue to next question <input type="checkbox"/> Yes: Identify requirements and how they were addressed:
Note 1: Where consulted, land managers must be given a minimum of 21 days to provide comments. Any comments received must be considered and appropriate actions identified in Part 5.	

3.2 Community Consultation

Could there be community interest in the works?	<input checked="" type="checkbox"/> No: Community consultation assessment not required. <input type="checkbox"/> Yes: Complete EMS-03-FM-0104 EIA Public Engagement Assessment and identify the assessment outcome; <input checked="" type="checkbox"/> 'Outrage' risk management <input checked="" type="checkbox"/> Targeted public consultation <input checked="" type="checkbox"/> Public engagement not required Actions arising from the assessment must be identified in Part 5.
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4) Environmental Assessment

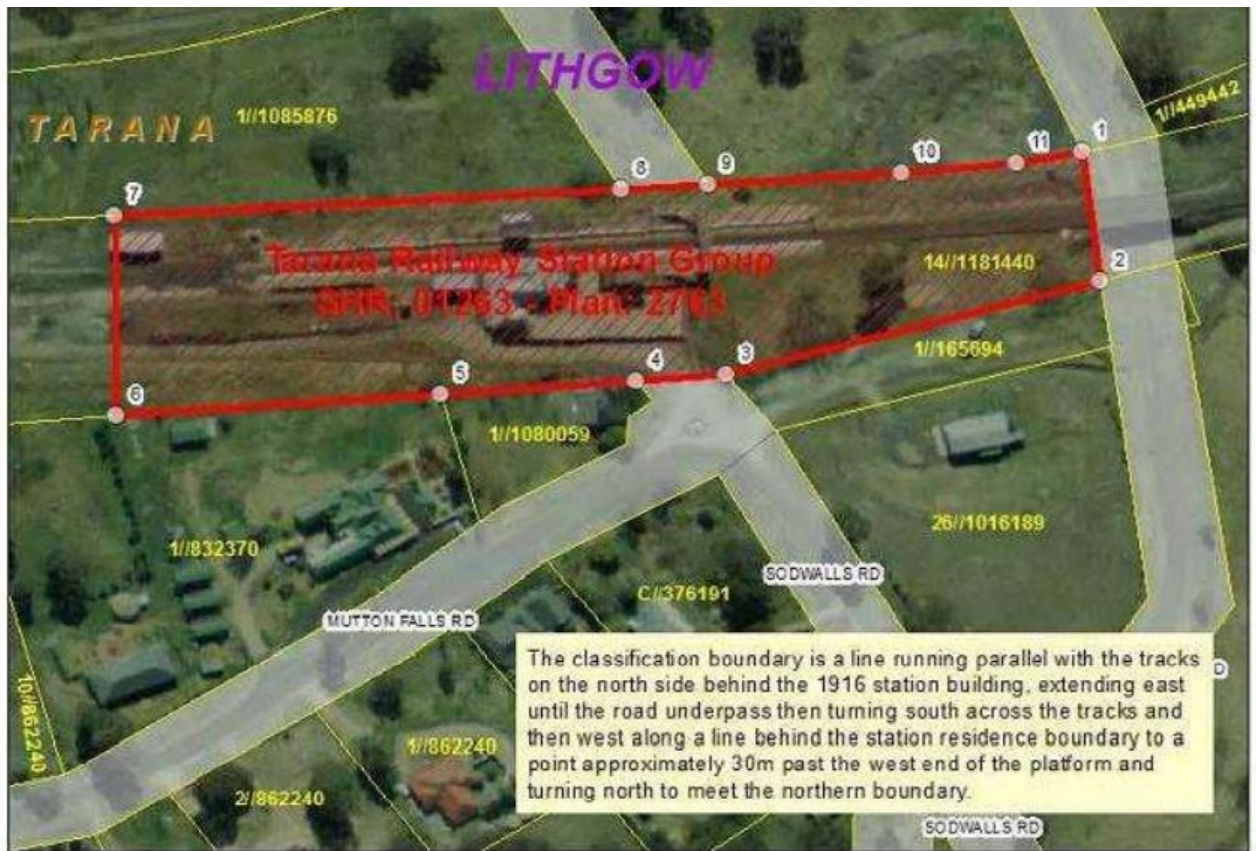
4.1 Working outside Active Operational Zone (AOZ)

Are any works to be completed outside the AOZ? <i>The definition of the AOZ is contained in EMS-03-PR-0008 Environmental Impact Assessment</i>	<input checked="" type="checkbox"/> No: Continue to next Question 4.2 <input type="checkbox"/> Yes  Contact environment support staff. EMS-03-FM-0249 EWMS activities outside AOZ must be completed by environment support staff only and then attached to this SEMP.
Note: Vehicle access across land that is not in the control of Sydney Trains via roads, access ways, easements, or with the consent of the relevant land owner is not considered to form part of the works outside the AOZ.	

4.2 Sensitive Sites

For works undertaken outside of the AOZ the following section is to include all sites identified by the environment support staff in the project's **EMS-03-FM-0249 EWMS activities outside AOZ**.

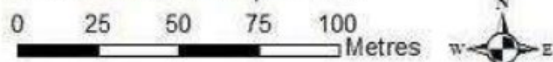
<p>Will the works be located in, or within 100m of an:</p> <ul style="list-style-type: none"> • Environmentally Sensitive Site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No • Contaminated Site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No • Heritage site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <p>A separate line is to be completed in the following table for each site/location identified</p>		
Location and distance (m) from the worksite	Nature of site (Details from database or register)	Potential for the works to impact ⁽²⁾
Works are located within the heritage curtilage of Gunning Station and Yard Group (refer curtilage map)	SHR site	Works to be in accordance with S60 approval
Works are located within a contaminated site	Land contamination	Works do not involve works to contaminated land



State Heritage Register - SHR 01263, Plan 2763

Tarana Railway Station Group

Gazettal Date: 02 April 1999



Scale: 1:2,000

Datum/Projection: GCS GDA 1994

Legend



Figure 1.3: Curtilage of the Place. Source: Heritage Council of NSW

Tarana Railway Station Group Curtilage

Notes:

- (1) Additional assessments may be required for works in or adjacent to some sensitive sites. Please see the environment support staff and/or individual subject matter procedures for specific requirements.
- (2) Where works are identified as having the potential to impact additional controls, approvals, notifications, etc that are needed to manage these impacts must be listed in **Section 5.1** (additional approvals/permits) or **Section 5.2** (additional controls)

4.3 Noise and Vibration Assessment of Works



Residential receiver Grovonor Road

<p>4.3a) Are there any noise sensitive receivers*¹ within 350m of works?</p>	<p><input checked="" type="checkbox"/> Yes Describe receivers and continue to 4.3b) Receivers*¹: _Residential_____</p> <p>Distance: _25m_____</p> <p><input type="checkbox"/> No Works do not need further assessment, go to Section 5.</p>
<p>4.3b) Will work be limited to track work on a moving face, be undertaken for less than five (5) consecutive days and consist only of one or more of the following activities:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ballasting or ballast clean <input type="checkbox"/> Resurfacing (tamping, stabilising, regulating) <input type="checkbox"/> Rail profiling <input type="checkbox"/> Continuous track welding / rail adjusting 	<p><input type="checkbox"/> Yes Works do not need noise and vibration assessment, go to Section 5.</p> <p><input checked="" type="checkbox"/> No Continue to 4.3c)</p>
<p>4.3c) Answer the following questions:</p> <p>a) Will there be any equipment producing noise levels of: (see 'References Tab' in EMS-10-FM-0166 Maintenance Quantified Noise and Vibration Assessment)</p>	<p><input type="checkbox"/> Yes to any of the questions</p> <p>Complete EMS-10-FM-0166 Maintenance Quantified Noise and Vibration Assessment and include any resulting actions in Section 5.</p>

<input type="checkbox"/> more than 80 dBA ⁽²⁾ during Standard Hours ⁽³⁾ , and/or <input type="checkbox"/> more than 60 dBA ⁽²⁾ outside of Standard Hours ⁽³⁾ or b) <input type="checkbox"/> Will the works use pile drivers, hydraulic hammers or vibratory rollers (or similar vibration inducing plant)?, or c) <input type="checkbox"/> Will works at any one location last more than 3 weeks in duration?	<input checked="" type="checkbox"/> No Works do not need noise and vibration assessment, go to Section 5.
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Notes

- 1: Noise sensitive receivers include residences, hospitals, places of worship, schools, aged and child care facilities, etc.
- 2: Noise levels are for the loudest equipment's 'Modified 10m Sound Pressure' as given in [EMS-10-FM-0166 Maintenance Quantified Noise and Vibration Assessment](#) ('Sound Pressure' Table, 'References' Tab).
- 3: 'Standard Hours' = 7am-6pm Monday to Friday and 8am-1pm Saturday

5) Summary of approvals and control measures

Note: For works undertaken outside of the AOZ, the following section is to include all actions and controls arising from the project's [EMS-03-FM-0249 EWMS Activities Outside AOZ](#).

5.1 Consultation, permits and approvals

Insert any relevant permits or requirements under other relevant legislation.


Environmental Hazard	Permits/Other Requirements	Timing	Responsibility

5.2 Environmental Controls

Environmental Hazard	All relevant work controls including those from the EWMS, PART 4 of this SEMP, specialist reports and/or licences and all other relevant activities	Responsibility
Consultation	Letterbox notification provided Local <input type="checkbox"/> Possession <input type="checkbox"/>	
Heritage	All staff and their contractors to be briefed on site specific heritage matters and provided with relevant tool-box talks. Implement conditions as per section 60 approval - HMS Application ID: 1065 Unexpected archaeological finds protocol to be implemented should archaeological items be uncovered during excavation works	PM/contractor

Environmental Hazard	All relevant work controls including those from the EWMS, PART 4 of this SEMP, specialist reports and/or licences and all other relevant activities	Responsibility
	Change in scope may require additional assessment and approval. Consult with environment professional if changes in scope are proposed.	
Noisy Works	<p>Delivery of tool-box talks</p> <p>Limit plant/equipment to minimum where possible</p> <p>Eliminate where possible idling of vehicles particularly nearby residential areas</p> <p>Site Environmental Management Plan, Construction Environmental Management Plan and associated Documents</p> <p>Establish and implement Traffic and Vehicle Management Plans (where applicable)</p> <p>Turn off or reduce volume of stereo when entering and exiting work site</p> <p>Non-tonal reversing alarms for vehicles on job site</p> <p>Plant & Machinery is to be fitted with noise mufflers.</p> <p>Respite (quite) periods every 3 hours when high noise impacting generating activities are be carried out</p> <p>Letterbox drop to be undertaken minimum 5 days maximum 14 days prior to commencement for out of standard hours work</p>	PM/contractor
Waste	<p>All waste to be placed in specified bins and removed from site.</p> <p>Workers to be briefed about proper waste disposal processes.</p> <p>All wastes leaving the site will be disposed of at a licenced facility capable of receiving the waste.</p> <p>All waste classification will be in accordance with the NSW EPA Guidelines</p> <p>Litter to be continuously monitored and removed throughout the project, and redundant material to be removed by end of the possession</p> <p>Stockpiles / leftover construction waste to be removed from site within one week.</p> <p>Ensure the requirements of Sydney Trains EMS-09-PR-0018 Waste Management System Procedure are met</p>	PM/contractor

Environmental Hazard	All relevant work controls including those from the EWMS, PART 4 of this SEMP, specialist reports and/or licences and all other relevant activities	Responsibility
	(including classification, tracking, recovery and disposal) of 'waste' as required.	
Unlawful disposal of waste, materials generated from the works	<p>Site Environmental Management Plan, Construction Environmental Management Plan and associated Documents EWMS-09-EW-0289</p> <p>Contractor to dispose of hazardous material lawfully, i.e EPA Licensed Waste Facility Waste material classified as per the NSW EPA Waste Classification Guidelines (2009)</p> <p>Testing if HAZMAT suspected, Cover all loads of waste material being taken off site for disposal/recycling. Receipt and retention of waste documents</p>	PM/contractor
Stockpile (temporary) placed near drainage lines (sediment runoff to local stormwater drainage lines)	<p>Site Environmental Management Plan, Construction Environmental Management Plan and associated Documents EWMS-09-EW-0289</p> <p>Stockpiles to be distanced from local drainage points.</p> <p>Stockpiles to be adequately covered during windy and wet periods and not to exceed a height of 2 metres.</p> <p>Provision of suitable stormwater management controls for potentially affected drainage points.</p> <p>Visual monitoring of controls throughout the day and Particularly after a major storm event.</p>	PM/contractor
Water Pollution / Sediment Runoff	<p>No excavation work to occur within vicinity of any waterways.</p> <p>Briefing to the workers on the nature of the waterway site and riparian vegetation around the river.</p> <p>Install suitable erosion and sediment controls as per EMS-09-PR-0012 Erosion and Sediment Control. Including:</p> <p>Installing silt fences in drainage lines down slope of disturbed areas.</p> <p>Protecting drainage pits with sediment socks filled with non-erodible material. Protect drainage pits from silt runoff</p> <p>Stabilising access to the site to prevent the tracking of mud</p>	PM/contractor

Environmental Hazard	All relevant work controls including those from the EWMS, PART 4 of this SEMP, specialist reports and/or licences and all other relevant activities	Responsibility
	<p>Installing suitable stockpile controls such as silt fencing and covers.</p> <p>Daily inspections of the site will consider the performance of erosion and sediment controls, with any identified remedial action applied as soon as practical</p>	
Storage of liquids on-site (localised stormwater pollution)	<p>Site Environmental Management Plan, Construction Environmental Management Plan and associated Documents EWMS-09-EW-0289</p> <p>Liquid containers to be tightly secured when not in use bundled enclosures where liquids (i.e fuel, solvents, paints, etc are stored at the work site)</p> <p>Readily accessible and adequately sized spill kit(s) Contractor trained in the application of spill incident management.</p> <p>All plant to be inspected and certified prior to commencement of work.</p> <p>Liquids to be distanced from local drainage points and stormwater drains.</p>	PM/contractor
Dust Control	<p>Ensure appropriate dust mitigation controls are implemented. Where required, this may include the use of a water cart / water filled high rail dumpy to wet down potential dust causing surfaces</p>	PM/contractor
Vehicle movement/delivery of materials to job site	<p>Site Environmental Management Plan, ECM and associated Documents EWMS-09-EW-0289</p> <p>Designated vehicle staging and delivery areas to be distanced from residential dwellings</p>	PM/contractor
 The works' SECM must illustrate the relevant work areas and site environmental controls described above		

5.3 Biodiversity Offset

Is a Biodiversity Offset required for the project in accordance with EMS-06-OR-1006 Biodiversity Note: All calculations are to be in accordance with EMS-06-WI-0177 Biodiversity Offsets Calculator	<input checked="" type="checkbox"/> No Continue <input type="checkbox"/> Yes Provide the following information: 1. Work order Number: _____ 2. Value: _____
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5.4 For environmental planning and assessment purposes the Site Environmental Management Plan for this job comprises of:

- This SEMP document
 - The Environmental Work Method Statement (EWMS) referred to in Section 1
 - The attached project's Site Environmental Control Map
- Plus (tick as required)
- EMS-03-FM-0248 EWMS Scope Exception**
 - EMS-03-FM-0249 EWMS Activities outside AOZ** (see Section 4.1)
 - EMS-10-FM-0166 Maintenance Quantified Noise Assessment** (see Section 4.3)
 - Additional environmental studies, approvals (including heritage)

5.5 Is review required by an environmental assessor?

Is this for a program of work?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is any of the work to be completed outside of the Active Operational Zone (AOZ)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is any work being undertaken or will impact on land controlled by others?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is access required across land controlled by others that is not a road, easement or right of way?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Were any sensitive sites identified in Section 4.2?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is any work being undertaken in embankments, cuttings or on the boundary fence?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is extensive Council or other Authority consultation required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are environmental impacts "likely" and "significant"	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Was an EMS-10-FM-0166 <i>Maintenance Quantified Noise Assessment</i> required (Section 4.3) AND was a work phase identified as High Risk?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is work likely to cause community concern (other than noise)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Were additional environmental studies or approvals (e.g. heritage) required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Were any biodiversity Offsets required for the project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



If "Yes" to any of the above, this form must be submitted to the local environment support staff for assessment at least 4 weeks prior to the planned commencement date of the works.

Report all pollution and environment incidents immediately to SHEM or the Incident and Injury Hotline (1800 772 779) and your local Environmental Support.

8) Determination

The works covered by the this document can proceed under Division 5.1 of the EP&A Act and Part 8 of the EP&A Reg subject to the implementation of all mitigation measures and actions identified in this document.

Position of Determiner: Project Manager

Date of Determination: 4/07/2022

This version of the document has been redacted to remove personal information.

To provide comments or feedback on this EIA please complete a [Sydney Trains Feedback Form](#) or call the Sydney Trains Feedback Line on 131 500.

Sydney Trains
36-46 GEORGE ST
BURWOOD NSW 2134

By email:

Dear

APPLICATION UNDER SECTION 60 OF THE HERITAGE ACT 1977

**Tarana Railway Station and yard group
STATE HERITAGE REGISTER Nº 01263**

Address: Main Western railway, TARANA NSW 2787
Proposal: Provision of accessible toilet and waiting area and refurbishment of station building and former station master's residence

Section 60 application no: HMS ID 1065, received 29/04/2022

As delegate of the Heritage Council of NSW (the Heritage Council), I have considered the above Section 60 application. Pursuant to section 63 of the *Heritage Act 1977*, approval is granted subject to the following conditions:

APPROVED DEVELOPMENT

1. All work shall comply with the information contained within:
 - a) Architectural drawings, prepared by as listed below:

Dwg No	Dwg Title	Date	Rev
Project Name: Tarana Railway Station			
A00	Cover page	26.04.2022	3
A01	Site plan - existing	05.04.2022	2
A02	Site plan – proposed	21.04.2022	3
A03	Sub floor plan – existing	05.04.2022	2
A04	Sub floor plan – proposed	05.04.2022	2
A05	Sub floor plan – proposed vents	29.04.2022	4
A06	Ground floor plan – existing	05.04.2022	2
A07	Ground floor plan – proposed	05.04.2022	2
A08	Roof plan – existing	05.04.2022	2
A09	Roof plan – proposed	05.04.2022	2
A10	Elevations – 01	29.04.2022	3
A11	Elevations – 02	29.04.2022	3
A12	Accessible WC	21.04.2022	3
A13	Door schedule – 1	06.04.2022	2
A14	Door schedule – 2	06.04.2022	2
A15	Door schedule – 3	29.04.2022	3

Dwg No	Dwg Title	Date	Rev
A16	Window schedule – 1	07.04.2022	1
A17	Window schedule – 2	21.04.2022	2
A18	RCP & electrical plan	29.04.2022	3
A19	Stormwater plan - proposed	26.04.2022	1

- b) Statement of Heritage Impact for 'Tarana Railway Station', Issue B, prepared by [REDACTED], dated 22 April 2022.
- c) Schedule of Works for 'Tarana Railway Station', Issue B, prepared by [REDACTED], dated April 2022.

EXCEPT AS AMENDED by the conditions of this approval:

HERITAGE CONSULTANT

2. A suitably qualified and experienced heritage consultant must be nominated for this project. The nominated heritage consultant must provide input into the detailed design, provide heritage information to be imparted to all tradespeople during site inductions, and oversee the works to minimise impacts to heritage values. The nominated heritage consultant must be involved in the selection of appropriate tradespersons and must be satisfied that all work has been carried out in accordance with the conditions of this consent.

Reason: So that appropriate heritage advice is provided to support best practice conservation and ensure works are undertaken in accordance with this approval.

SPECIALIST TRADESPERSONS

3. All work to, or affecting, significant fabric shall be carried out by suitably qualified tradespersons with practical experience in conservation and restoration of similar heritage structures, materials and construction methods.

Reason: So that the construction, conservation and repair of significant fabric follows best heritage practice.

SITE PROTECTION

4. Significant built and landscape elements are to be protected during site preparation and the works from potential damage. Protection systems must ensure significant fabric, including landscape elements, is not damaged or removed.

Reason: To ensure significant fabric including vegetation is protected during construction.

UNEXPECTED FINDS

5. The Applicant must ensure that if substantial intact archaeological deposits and/or State significant relics or any other buried fabric are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

Reason: All significant fabric within a State Heritage Register curtilage should be managed according to its significance. This is a standard condition to identify to the applicant how to proceed if historical archaeological relics, or other unexpected buried discoveries such as works are identified during the approved project.

ABORIGINAL OBJECTS

6. Should any Aboriginal objects be uncovered by the work which is not covered by a valid Aboriginal Heritage Impact Permit, excavation or disturbance of the area is to stop immediately and Heritage NSW is to be informed in accordance with the *National Parks and Wildlife Act 1974*. Works affecting Aboriginal objects on the site must not continue until Heritage NSW has been informed and the appropriate approvals are in place. Aboriginal objects must be managed in accordance with the *National Parks and Wildlife Act 1974*.

Reason: This is a standard condition to identify to the applicant how to proceed if Aboriginal objects are unexpectedly identified during works.

COMPLIANCE

7. If requested, the applicant and any nominated heritage consultant may be required to participate in audits of Heritage Council of NSW approvals to confirm compliance with conditions of consent.

Reason: To ensure that the proposed works are completed as approved.

DURATION OF APPROVAL

8. This approval will lapse five years from the date of the consent unless the building works associated with the approval have physically commenced.

Reason: To ensure the timely completion of works.

Advice

Section 148 of the *Heritage Act 1977* (the Act), allows people authorised by the Minister to enter and inspect, for the purposes of the Act, with respect to buildings, works, relics, moveable objects, places or items that is or contains an item of environmental heritage. Reasonable notice must be given for the inspection.

Right of Appeal

If you are dissatisfied with this determination appeal may be made to the Minister for Heritage under section 70 of the Act.

It should be noted that an approval under the Heritage Act is additional to that which may be required from other Local Government and State Government Authorities in order to undertake works.

Stamped documents

Any stamped documents (e.g. approved plans) for this application are available for the Applicant to download from the Heritage Management System at <https://hms.heritage.nsw.gov.au> under 'My Completed Applications.'

If you have any questions about HMS 1065, please contact [REDACTED], Senior Assessments Officer, at Heritage NSW on [REDACTED] or [REDACTED]

[REDACTED]

[REDACTED]

Manager, Assessments
Heritage NSW
Department of Planning & Environment
As Delegate of the Heritage Council of NSW
9 June 2022

cc: Lithgow Council, council@lithgow.nsw.gov.au

Pipe Drainage			Sydney Trains Incident Hotline: 1800 772 779
<i>Environmental Work Method Statement</i>			
Scope			Plant and Equipment:
<p>Scope of EWMS: Works covered by this EWMS are limited to:</p> <ul style="list-style-type: none"> Desilt existing drainage, or Lay new drainage including pipes, pits, detention tanks and headwalls. 	<p>Not in Scope: Works not in scope include:</p> <ul style="list-style-type: none"> Removing track New drainage system construction 	<p>Note: Works outside this scope may require an environmental assessment and Construction EMP. Contact local Environmental Professional for guidance.</p>	<ul style="list-style-type: none"> backhoe bobcat chainsaws concrete pumps concrete saw crane dump truck excavator formwork geo-textile grader hydro-blaster mulcher plate compactor rock grinder rock hammering attachment roller skip bins super sucker trucks water cart
Before works commence			
<p>Training/Qualifications required:</p> <ul style="list-style-type: none"> Project Manager to have completed Environmental Management for Project Managers online training and EWMS Planning Pathway Masterclass. Site Manager to have completed 1 day Erosion and Sediment Control course 	<p>External notifications:</p> <ul style="list-style-type: none"> Letter box drop to all affected residences Local Council where external stormwater drainage impacted 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> Site Environmental Management Plan Services Search 	
During works			
<p>Inspections and Briefings:</p> <ul style="list-style-type: none"> Pre-work brief Daily plant inspections Daily site inspections 	<p>Permits / licences:</p>	<p>Records/Reporting:</p> <ul style="list-style-type: none"> Pollution Incident Notification Records of inspections 	
Post works			
<p>Inspections:</p> <ul style="list-style-type: none"> Post work ESC inspections 	<p>Site Rehabilitation</p> <ul style="list-style-type: none"> Revegetation of exposed areas 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> Post work defect reporting Records of inspections 	

Applicable Job Steps	Environmental Hazard															
	<u>Staff unaware</u>	<u>Environmentally sensitive site damage</u>	<u>Erosion and sedimentation</u>	<u>Noise and vibration</u>	<u>Dust (from earthworks)</u>	<u>Damage to adjacent property</u>	<u>Traffic</u>	<u>Wastes</u>	<u>Soil contamination</u>	<u>Hydrocarbon spill</u>	<u>Plants and Animals</u>	<u>Light spill</u>	<u>Fumes/Smoke from diesel equipment</u>	<u>Aesthetics</u>	<u>Heritage</u>	<u>Bush fires</u>
Preliminary works	✓															
Access upgrade to site (includes vegetation removal)		✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓		
Material / plant delivery and storage, site amenities, skip bins		✓	✓	✓	✓		✓	✓	✓	✓			✓			
Excavate trench		✓	✓	✓	✓		✓			✓	✓			✓		
Stockpile excavated spoil		✓	✓	✓	✓		✓	✓	✓	✓				✓		
De-silt and hydro-blast existing structure			✓	✓		✓		✓	✓	✓			✓			
Lay bed and sub-grade – road base				✓	✓			✓	✓	✓			✓			
Lay pipes				✓	✓	✓				✓			✓		✓	
Install headwalls / pits (small precast, large constructed in situ)			✓	✓	✓	✓				✓			✓	✓		
Backfill			✓	✓	✓	✓	✓	✓	✓	✓			✓			
Revegetate / decommission, site tidy, waste / spoil disposal, etc			✓	✓	✓		✓	✓	✓	✓	✓		✓	✓		

Environmental Hazard	Control	Responsibility for control	Controls reference
Staff on site unaware of environmental controls	<ul style="list-style-type: none"> Undertake site pre-work briefing and give local induction. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-06-FM-4163 Pre-work Briefing
Damage to environmentally sensitive site or receptor	<ul style="list-style-type: none"> The SEMP must identify any environmentally sensitive sites that may be impacted by the activity. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan, <i>Environmentally Sensitive Site List</i> SMS-06-FM-4163 Pre-work Briefing

UNCONTROLLED WHEN PRINTED

Environmental Hazard	Control	Responsibility for control	Controls reference
Erosion and sedimentation	<ul style="list-style-type: none"> Develop erosion and sediment control plan for site and install erosion and sediment control structures prior to commencing site work Maintain erosion and sediment control structures during works and until site has stabilised after completion of works Provide sediment protection to stockpiles Engage street sweeper to keep public roads used to access site clean of mud tracking and silt Daily inspections 	<p>Project Manager</p> <p>Site Manager</p> <p>Site Manager</p> <p>Project Manager</p> <p>Site Manager</p>	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-14-PR-0012 <i>Erosion and Sediment Control</i>
Offensive noise	<ul style="list-style-type: none"> The SEMP must identify potentially sensitive receivers and identify relevant controls through the noise assessment. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-10-GD-0048 <i>Guide to Managing Noise and Vibration from Rail-related Construction and Maintenance</i>
Dust from earth works impacting non-Sydney Trains controlled property	<ul style="list-style-type: none"> Use water cart to dampen exposed surfaces including access roads, work areas and stockpiles Cover long term stockpiles Keep vehicles to existing access roads Minimise removal of vegetation from worksite Daily inspections 	<p>Site Manager</p> <p>Site Manager</p> <p>Site Manager</p> <p>Project Manager</p> <p>Site Manager</p>	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-05-GD-0013 <i>Air Quality Guide</i>
Damage to adjacent properties	<ul style="list-style-type: none"> The SEMP must identify potentially sensitive receivers and relevant controls based on vibration assessment, where required. Liaise with adjacent land holder and undertake agreed actions. 	<p>Project Manager</p> <p>Site Manager</p>	<ul style="list-style-type: none"> Site Environmental Management Plan
Increased traffic flow in residential areas	<ul style="list-style-type: none"> Implement Traffic Management Plan Plan all vehicle movements to occur outside of local peak traffic periods Ensure offsite staging areas in low impact areas Utilise qualified traffic control staff 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan

Environmental Hazard	Control	Responsibility for control	Controls reference
Generation of wastes (spoil, vegetation, concrete wastes, litter)	<ul style="list-style-type: none"> Do not overestimate quantities of materials required. Separate wastes into recyclable categories Ensure wastes are placed in appropriate containers Minimise mixing of new ballast and spoil Daily inspections Check and clean spoil wagons / trucks before leaving worksite. Remove stockpiles as soon as possible. No spreading of weed infested material within corridor Wash out containers prior to disposal. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-13-OR-1013 <i>Waste Management</i>
Management of slurry wastes (concrete and super sucker).	<ul style="list-style-type: none"> Ensure proper, immediate disposal of slurry offsite. Alternatively, construct a correctly sized, impermeable slurry holding facility and properly dispose of all dewatered wastes. 	Project Manager Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-13-WI-0183 <i>Hydro-Vac Slurry Management</i>
Soil contamination	<ul style="list-style-type: none"> Identify potential contaminants prior to commencing work on site Develop stockpile management plan to ensure segregation of potentially contaminated materials from clean materials Implement stockpile plan Daily inspections 	Project Manager Project Manager Site Manager Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-07-PR-0004 <i>Contaminated Land Management</i>
Hydrocarbon spill	<ul style="list-style-type: none"> Ensure daily plant checklists completed and repairs made as required Ensure all plant has suitable spill kits and operators trained in use and disposal of used materials Notify Pollution Incidents to the Safety Incident and Injury Hotline 1800 772 779 Ensure SDS is onsite for all stored chemicals 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-16-SP-3076 Inspection Testing Calibration and Monitoring SMS-06-GD-3112 Guide to Plant Risk Assessment EMS-02-WI-0214 <i>Notify Pollution Incidents</i> EMS-02-FM-0811 <i>Pollution Incident Record</i>

Environmental Hazard	Control	Responsibility for control	Controls reference
Threats to biodiversity via native vegetation or habitat clearing, and the spread of noxious weeds.	<ul style="list-style-type: none"> Maintain tape or other suitable fencing around “no go zones” Clear minimal vegetation and only as approved. Trim or remove trees under direction of an arborist. Keep vehicles and equipment away from vegetation Preserve wildlife / habitat where possible. Contact WIRES as required for injured animals. Remove weeds from plant before leaving infested sites. Use weed control process (spray qualifications, data sheets) Cap filled embankment with 600mm of crushed sandstone prior to revegetation. Revegetate disturbed areas using locally native, appropriate species, in an approved vegetation plan. 	<p>Site Manager</p> <p>Site Manager</p> <p>Site Manager</p> <p>Site Manager</p> <p>Site Manager</p> <p>Site Manager</p> <p>Project Manager</p> <p>Project Manager</p>	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-06-OR-1006 <i>Biodiversity</i> EMS-06-WI-0053 <i>Noxious and Environmental Weed Herbicide Application</i> EMS-11-PR-0017 <i>Pesticide System Procedure</i>
Fumes/Smoke from diesel equipment including excavators and trucks.	<ul style="list-style-type: none"> Maintain equipment in accordance with manufacturer’s written specification Ensure daily plant checklists completed and repairs made as required 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-16-SP-3076 Inspection Testing Calibration and Monitoring
Threats to visual aesthetics including placement of stockpiles, and removal of vegetation screens.	<ul style="list-style-type: none"> Place stockpiles and site amenities away from residents, and remove them as soon as possible. Create or maintain existing visual screens using vegetation, shade cloth on fences or natural site features. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan
Heritage (old drainage structures)	<ul style="list-style-type: none"> Check the S170 Register for any heritage structures that may be impacted. Contact Sydney Trains’ Heritage Specialist (SEQR Directorate) for advice regarding Statements of Heritage Impact Demarcate heritage site to prevent entry into heritage site If a heritage item is uncovered, Stop further disturbance, demarcate the site and contact the Environmental Professional. 	<p>Project Manager</p> <p>Project Manager</p> <p>Site Manager</p> <p>Site Manager</p>	<ul style="list-style-type: none"> Site Environmental Management Plan <i>Sydney Trains Heritage and Conservation Register</i>

Environmental Hazard	Control	Responsibility for control	Controls reference
Impacts on Aboriginal Heritage	<ul style="list-style-type: none"> If the area is undisturbed, the SEMP must identify if there are any known aboriginal objects, aboriginal places or culturally modified trees (carved or scar trees) that may be impacted by the activity. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan

Fencing			Sydney Trains Incident Hotline: 1800 772 779
Environmental Work Method Statement			Plant and Equipment:
Scope			<ul style="list-style-type: none"> post digger truck
Scope of EWMS: Works covered by this EWMS are limited to: <ul style="list-style-type: none"> Installation or replacement of extended sections of security fencing. 	Not in Scope: <ul style="list-style-type: none"> - erection of fencing that is not for security purposes. 	Note: Works outside this scope may require an environmental assessment and Construction EMP. Contact local Environmental Professional for guidance.	
Before works commence			
Training/Qualifications required: <ul style="list-style-type: none"> Project Manager to have completed online training 'Environmental Management for Projects' and 'EWMS Planning Pathway' Masterclass. Site Manager to have completed 1 day Erosion and Sediment Control course 	External notifications: <ul style="list-style-type: none"> Letter box drop to all affected residences 	Records/Reporting: <ul style="list-style-type: none"> Site Environmental Management Plan 	
During works			
Inspections and Briefings: <ul style="list-style-type: none"> Pre-work brief Daily plant inspections Daily site inspections 	Permits / licences:	Records/Reporting: <ul style="list-style-type: none"> Pollution Incident Notification Records of inspections 	
Post works			
Inspections:	Site Rehabilitation <ul style="list-style-type: none"> Revegetation 	Records/Reporting: <ul style="list-style-type: none"> Post work defect reporting Records of inspections 	

Applicable Job Steps	Environmental Hazard															
	Staff awareness	Sensitive receivers	Erosion and sedimentation	Noise and vibration	Dust	Property damage	Traffic	Wastes	Soil contamination	Hydrocarbon spill	Plants and animals	Light spill	Fumes and smoke	Aesthetics	Heritage	Bush fires
Preliminary works	✓															
Access upgrade to site (includes vegetation removal)		✓	✓	✓	✓		✓	✓		✓	✓		✓	✓		
Material / plant delivery and storage, including fencing, posts, etc.		✓	✓		✓	✓	✓						✓			
Install fence (dig hole, place posts, concrete and wire)			✓	✓	✓	✓	✓		✓	✓			✓	✓		
Waste disposal (vegetation, excess materials)			✓	✓	✓				✓				✓			

Environmental Hazard	Control	Responsibility for control	Controls reference
Staff on site unaware of environmental controls	<ul style="list-style-type: none"> Undertake site pre-work briefing and give local induction. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-06-FM-4163 <i>Pre-work Briefing</i>
Damage to environmentally sensitive site or receptor	<ul style="list-style-type: none"> The SEMP must identify any environmentally sensitive sites that may be impacted by the activity. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan, <i>Environmentally Sensitive Site List</i> SMS-06-FM-4163 <i>Pre-work Briefing</i>
Erosion and sedimentation	<ul style="list-style-type: none"> Engage street sweeper to keep public roads used to access site clean of mud tracking and silt Daily inspections 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-14-PR-0012 <i>Erosion and Sediment Control</i>
Offensive noise	<ul style="list-style-type: none"> The SEMP must identify potentially sensitive receivers and identify relevant controls through the noise assessment. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-10-GD-0048 <i>Guide to Managing Noise and Vibration from Rail-related Construction and Maintenance</i>

Environmental Hazard	Control	Responsibility for control	Controls reference
Dust from earth works impacting non-Sydney Trains controlled property)	<ul style="list-style-type: none"> • Use water cart to dampen exposed surfaces including access roads, work areas and stockpiles • Cover long term stockpiles. • Keep vehicles to existing access roads • Minimise removal of vegetation from worksite • Daily inspections 	Site Manager Site Manager Site Manager Project Manager Site Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan • EMS-05-GD-0013 <i>Air Quality Guide</i>
Damage to adjacent properties	<ul style="list-style-type: none"> • The SEMP must identify potentially sensitive receivers and relevant controls based on vibration assessment, where relevant. • Liaise with adjacent land holder and undertake agreed actions. 	Project Manager Site Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan
Increased traffic flow in residential areas	<ul style="list-style-type: none"> • Implement Traffic Management Plan • Plan all vehicle movements to occur outside of local peak traffic periods • Ensure offsite staging areas in low impact areas • Utilise qualified traffic control staff 	Project Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan
Generation of wastes (steel mesh, posts, concrete, litter)	<ul style="list-style-type: none"> • Do not overestimate quantities of materials required. • Separate wastes into recyclable categories • Ensure wastes are placed in appropriate containers • Daily inspections • Remove stockpiles as soon as possible. 	Site Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan • EMS-13-OR-1013 <i>Waste Management</i>
Soil contamination	<ul style="list-style-type: none"> • Identify potential contaminants prior to commencing work on site • Develop stockpile management plan to ensure segregation of potentially contaminated materials from clean materials • Implement stockpile plan • Daily inspections 	Project Manager Project Manager Site Site Manager Site Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan • EMS-07-PR-0004 <i>Contaminated Land Management</i>

Environmental Hazard	Control	Responsibility for control	Controls reference
Hydrocarbon spill	<ul style="list-style-type: none"> Ensure daily plant checklists completed and repairs made as required Ensure all plant has suitable spill kits and operators trained in use and disposal of used materials Notify Pollution Incidents to the Safety Incident and Injury Hotline 1800 772 779 Ensure SDS is onsite for all stored chemicals 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-16-SP-3076 <i>Inspection, Testing, Calibration and Monitoring</i> SMS-06-GD-3112 <i>Guide to Plant Risk Assessment</i> EMS-02-WI-0214 <i>Notify Pollution Incidents</i>
Threats to biodiversity via native vegetation or habitat clearing, and the spread of noxious weeds.	<ul style="list-style-type: none"> Maintain tape or other suitable fencing around “no go zones” Clear minimal vegetation, only as approved. Trim or remove trees under direction of an arborist. Keep vehicles and equipment away from vegetation Preserve wildlife / habitat where possible. Contact WIRES as required for injured animals. Remove weeds from plant before leaving infested sites. Use weed control process (spray qualifications, data sheets) Revegetate disturbed areas using locally native, appropriate species, in an approved vegetation plan. 	Site Manager Site Manager Site Manager Site Manager Site Manager Site Manager Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-06-OR-1006 <i>Biodiversity</i> EMS-11-WI-0053 <i>Noxious and Environmental Weed Herbicide Application</i> EMS-11-PR-0017 <i>Pesticide System Procedure</i>
Fumes and smoke from diesel equipment including trucks and post digger	<ul style="list-style-type: none"> Maintain equipment in accordance with manufacturer’s written specification Ensure daily plant checklists completed and repairs made as required 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-16-SP-3076 <i>Inspection, Testing, Calibration and Monitoring</i>
Threats to visual aesthetics including placement of stockpiles, and removal of vegetation screens.	<ul style="list-style-type: none"> Place stockpiles and site amenities away from residents, and remove them as soon as possible. Create or maintain existing visual screens using vegetation, shade cloth on fences or natural site features. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan
Impacts on Aboriginal Heritage	<ul style="list-style-type: none"> If the land is undisturbed the SEMP must identify if there are any known aboriginal objects, aboriginal places or culturally modified trees (carved or scar trees) that may be impacted by the activity. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan

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Re-cladding Roofs and Walls			Sydney Trains Incident Hotline: 1800 772 779
Environmental Work Method Statement			
Scope			Plant and Equipment:
<p>Scope of EWMS: Works covered by this EWMS are limited to:</p> <ul style="list-style-type: none"> • Re-cladding roofs or walls with similar materials • Installation of whirly birds • Installation of roof louvers and vents • Installation static lines and roof walkways • Guttering 	<p>Not in Scope: Works not in scope include:</p> <ul style="list-style-type: none"> • Enlargement or extension of building or increase in load-bearing capacity of any load-bearing component of building • Structural alterations. 	<p>Note: Works outside this scope may require an environmental assessment, and Construction EMP. Contact local Environmental Practitioner for guidance. This EWMS must be used in conjunction with the SEMP and SECM.</p>	<ul style="list-style-type: none"> • Crane truck • Lifting plant – Crane, EWP, Telehandler • Lighting towers • Oxy cutting equipment • Site amenities • Traffic control devices • Waste bins • Welding equipment • Work trucks / vehicles • Scaffolding • Ladder(s) • Water cart
Before works commence			
<p>Training/Qualifications required:</p> <ul style="list-style-type: none"> • Operators must be trained & currently accredited to use tools, plant and equipment. • Site Supervisor to have completed 1 day Erosion and Sediment Control course • Project Manager to have completed Environmental Management for Projects online training and EWMS Planning Pathway Masterclass 	<p>External notifications:</p> <ul style="list-style-type: none"> • Letter box drop to all affected residences where required. • Assess planning / heritage requirements 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> • Site Environmental Management Plan, • Construction or Maintenance Plan 	
During works			
<p>Inspections and Briefings:</p> <ul style="list-style-type: none"> • Pre-work brief, • Daily plant inspections, • Daily site inspections. 	<p>Permits / licences:</p> <ul style="list-style-type: none"> • Heritage s60 approval or s57 exemption from approval or notification as required • Hot work permit 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> • Pollution Incident Notification, • Records of inspection. 	
Post works			
<p>Inspections:</p> <ul style="list-style-type: none"> • Post work inspections. 	<p>Site Rehabilitation</p>	<p>Records/Reporting:</p> <ul style="list-style-type: none"> • Post work defect reporting, • Records of inspection. 	

Environmental Hazard Matrix

Applicable Job Steps	Environmental Hazard															
	<u>Staff unaware</u>	<u>Environmentally sensitive site damage</u>	<u>Erosion and sedimentation</u>	<u>Noise and vibration</u>	<u>Dust (from earthworks)</u>	<u>Damage to adjacent property</u>	<u>Traffic</u>	<u>Wastes</u>	<u>Soil contamination</u>	<u>Hydrocarbon spill</u>	<u>Plants and Animals</u>	<u>Light spill</u>	<u>Fumes/Smoke from diesel equipment</u>	<u>Aesthetics</u>	<u>Heritage</u>	<u>Bush fires</u>
Preliminary works Material / plant delivery and storage, site amenities, skip bins Erect scaffolding Trim vegetation adjacent and overhanging	✓	✓	✓						✓	✓	✓					✓
Remove existing roofing and flashings or cladding				✓		✓	✓	✓	✓				✓		✓	✓
Painting: <ul style="list-style-type: none"> Abrasive blast / high pressure water clean Paint the prepared steel surfaces Regular clean up / disposal of spent abrasive and paint debris Painting roof purlins and substructure 				✓	✓	✓	✓		✓			✓	✓			✓
Replace all roof and or cladding insulation and roof mesh Replace roof and or cladding with sheeting to match existing				✓			✓		✓			✓	✓	✓	✓	✓
Demobilisation, remove scaffolding, site tidy, waste disposal				✓			✓	✓						✓		

Hazard Control Table

Environmental Hazard	Control	Responsibility for control	Controls reference
Site pre-work briefing and local induction not completed:	<ul style="list-style-type: none"> Undertake site pre-work briefing and give local induction. 	Site Supervisor	<ul style="list-style-type: none"> Site Environmental Management Plan. SMS-06-FM-4163 "Pre-work Briefing".
Damage to environmentally sensitive site or receptor:	<ul style="list-style-type: none"> Demarcate sensitive sites and prevent entry into sensitive site, Prevent entry into delineated areas, Identify no-go areas in Pre-work briefings, Daily inspections. 	Project Manager Site Supervisor Site Supervisor Site Supervisor	<ul style="list-style-type: none"> Site Environmental Management Plan. Environmentally Sensitive Site List. SMS-06-FM-4163 "Pre-work Briefing."
Erosion and sedimentation:	<ul style="list-style-type: none"> Develop erosion and sediment control plan for site and install erosion and sediment control structures prior to commencing site work, Maintain erosion and sediment control structures during works and until site has stabilised after completion of works, Provide sediment protection for worksite, Daily inspection. 	Project Manager Site Supervisor Site Supervisor Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-14-PR-0012 "Erosion and Sediment Control".
Offensive noise:	<ul style="list-style-type: none"> Plan to conduct works during normal work hours where possible, or to less sensitive times of the day, Locate noisy equipment, parking areas and operations away from sensitive receivers where practical, Carry out letterbox notifications to all impacted residents, Daily inspection. 	Project Manager Site Supervisor Project Manager Site Supervisor	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-10-GD-0048 "Guide to Managing Noise and Vibration from Rail-related Construction and Maintenance".
Dust from works impacting non-Sydney Trains controlled property):	<ul style="list-style-type: none"> Use water cart to dampen exposed surfaces including access roads, work areas and stockpiles, Cover long term stockpiles, Keep vehicles to existing access roads, Minimise removal of vegetation from worksite, Daily inspections. 	Site Supervisor Site Supervisor Site Supervisor Project Manager Site Supervisor	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-05-GD-0013 "Air Quality Guide".

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Environmental Hazard	Control	Responsibility for control	Controls reference
Damage to adjacent properties:	<ul style="list-style-type: none"> • Liaise with adjacent land holder and undertake agreed actions, • Conduct pre-work dilapidation risk assessment, including site photos. 	<p>Project Manager</p> <p>Site Supervisor</p>	<ul style="list-style-type: none"> • Site Environmental Management Plan.
Traffic disruption around worksites:	<ul style="list-style-type: none"> • Implement Traffic Management Plan, • Plan all vehicle movements to occur outside of local peak traffic periods, • Ensure offsite staging areas in low impact areas, • Utilise qualified traffic control staff. 	<p>Project Manager</p>	<ul style="list-style-type: none"> • Site Environmental Management Plan.
Generation of wastes from vegetation management:	<ul style="list-style-type: none"> • Ensure wastes are placed in appropriate bags or containers, • All cut vegetation (clippings (mower/whipper sniping clippings, leaves, branches & other) to be removed from site and recycled, • Remove stockpiles as soon as possible, • No spreading of weed infested material within corridor. 	<p>Site Supervisor</p>	<ul style="list-style-type: none"> • Site Environmental Management Plan. • EMS-13-OR-1013 "Waste Management".
Generation of wastes from construction:	<ul style="list-style-type: none"> • Do not overestimate quantities of materials required, • Separate wastes into recyclable categories, • Ensure wastes are placed in appropriate containers, • Daily inspections, • Check and clean spoil wagons / trucks before leaving worksite, • Remove stockpiles as soon as possible, • No spreading of weed infested material within corridor • Hazardous materials to be disposed of in accordance with DECC 2009 Waste Classification Guidelines. 	<p>Site Supervisor</p>	<ul style="list-style-type: none"> • Site Environmental Management Plan. • EMS-13-OR-1013 "Waste Management".

Environmental Hazard	Control	Responsibility for control	Controls reference
Soil contamination:	<ul style="list-style-type: none"> Identify potential contaminants prior to commencing work on site, Ensure segregation of potentially contaminated materials from clean materials, Daily inspections. 	<p>Project Manager</p> <p>Site Supervisor</p> <p>Site Supervisor</p>	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-07-PR-0004 <i>“Contaminated Land Management”</i>.
Hydrocarbon / paint spill:	<ul style="list-style-type: none"> Ensure daily plant checklists completed and repairs made as required, Ensure all plant has suitable spill kits and operators trained in use and disposal of used materials, Notify Pollution Incidents to the Safety Incident and Injury Hotline 1800 772 779, Ensure SDS onsite for all stored chemicals Bund all chemicals including paints and solvents 	<p>Site Supervisor</p>	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-02-WI-0124 <i>Notify Pollution Incidents</i>
Threats to biodiversity via native vegetation or habitat clearing, and the spread of noxious weeds:	<ul style="list-style-type: none"> Maintain tape or other suitable fencing around “no go zones”, Clear minimal vegetation, only as approved, Trim or remove trees under direction of an arborist, Keep vehicles and equipment away from vegetation, Preserve wildlife / habitat where possible. Contact WIRES as required for injured animals, Remove weeds from plant before leaving infested sites, Use weed control process (spray qualifications, data sheets), Revegetate disturbed areas using locally native, appropriate species, in an approved vegetation plan. 	<p>Site Supervisor</p> <p>Site Supervisor</p> <p>Site Supervisor</p> <p>Site Supervisor</p> <p>Site Supervisor</p> <p>Site Supervisor</p> <p>Project Manager</p>	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-06-OR-1006 <i>Biodiversity.</i> EMS-11-WI-0053 <i>Noxious and Environmental Weed Herbicide Application.</i> EMS-11-PR-0017 <i>Pesticide System Procedure.</i>
Light spill:	<ul style="list-style-type: none"> Locate portable lighting towers so that they are not directed at residential properties, Ensure parked vehicles headlights do not shine into residences, Daily inspections. 	<p>Site Supervisor</p>	<ul style="list-style-type: none"> Site Environmental Management Plan.

Environmental Hazard	Control	Responsibility for control	Controls reference
Fumes and smoke from diesel, petrol or LPG equipment including all plant and vehicles:	<ul style="list-style-type: none"> Maintain equipment in accordance with manufacturer's written specification, Ensure plant checklists completed and repairs made as required. 	Site Supervisor	<ul style="list-style-type: none"> Site Environmental Management Plan. SMS-16-SR-0057 "Workplace Health and Safety Inspection, Testing and Calibration."
Threats to visual aesthetics including placement of stockpiles, removal of vegetation screens, and creation of visually unattractive structures:	<ul style="list-style-type: none"> Place stockpiles and site amenities away from residents, and remove them as soon as possible, Create or maintain existing visual screens using vegetation, shade cloth on fences or natural site features, Consider visual amenity of building in design phase, including colour, materials and texture. 	Site Supervisor Site Supervisor Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan.
Heritage	<ul style="list-style-type: none"> Check the S170 Register for any heritage structures that may be impacted. Contact Sydney Trains' Heritage Specialist (SER Directorate) for advice regarding Statements of Heritage Impact Demarcate heritage site to prevent entry into heritage site If a heritage item is uncovered, Stop further disturbance, demarcate the site and contact the Environment Officer. 	Project Manager Site Supervisor	<ul style="list-style-type: none"> Site Environmental Management Plan Sydney Trains Heritage and Conservation Register
Bush and/or grass fires	<ul style="list-style-type: none"> Obtain Hot Work permit for site work Operate in accordance with requirements of Hot Work Permit Provide firefighting equipment suitable to operations 	Project Manager Site Supervisor Site Supervisor	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-06-FM-0382 Hot Work Permit

Station Facility Service Provision and Internal Removal			Sydney Trains Incident Hotline: 1800 772 779
Environmental Work Method Statement			Plant and Equipment:
<p>Scope of works covered by EWMS:</p> <ul style="list-style-type: none"> Remove/relocate/provide services Demolition of internal non-load bearing walls Remove floor furnishings Remove non-operational equipment Remove false ceiling 	<p>Not in Scope: Works not in scope include:</p> <ul style="list-style-type: none"> Removal and alteration of original heritage fabric without approval Installation of mechanical exhausts and grease traps Any proposed change of use and/or fitout 	<p>Note:</p> <ul style="list-style-type: none"> Works outside this scope may require an environmental assessment, and Construction EMP Contact local Environmental Practitioner for guidance This EWMS must be used in conjunction with the SEMP + SECM Any proposed change of use or fitout must be further assessed as additional consent may be required 	<ul style="list-style-type: none"> Hand tools/Power tools Jackhammer Truck Concrete saw High rail equipment EWP Platform ladder Scaffolding Extraction fan Core borer Hoarding Crane truck Skip bin Portable toilets Oxy cutting equipment Lighting Generator Pressure washer
Before works commence			
<p>Training/Qualifications required:</p> <ul style="list-style-type: none"> Operators must be trained & currently accredited to use tools, plant and equipment Project manager to have completed online training <i>Environmental Management for Projects and EWMS Masterclass</i> 	<p>External notifications:</p> <ul style="list-style-type: none"> Letter box drop to all affected residences where required 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> Site Environmental Management Plan, Site Environmental Control Map 	
During works			
<p>Inspections and Briefings:</p> <ul style="list-style-type: none"> Pre-work brief, Daily plant inspections, Daily site inspections. 	<p>Permits / licences:</p> <ul style="list-style-type: none"> Hot work permit Heritage s60 approval or s57 exemption from approval or notification as required 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> Pollution Incident Notification Records of inspection 	
Post works			
<p>Inspections:</p> <ul style="list-style-type: none"> Post work inspections. 	<p>Site Rehabilitation</p>	<p>Records/Reporting:</p> <ul style="list-style-type: none"> Post work defect reporting, Records of inspection. 	

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Environmental Hazard Matrix

Applicable Job Steps	Environmental Hazard																	
	<u>Scope outside EWMs</u>	<u>Unsuitable plant and equipment</u>	<u>Staff unaware</u>	<u>Environmentally sensitive site damage</u>	<u>Erosion and sedimentation</u>	<u>Noise and vibration</u>	<u>Dust</u>	<u>Damage to adjacent property</u>	<u>Traffic</u>	<u>Wastes</u>	<u>Soil contamination</u>	<u>Hydrocarbon spill</u>	<u>Plants and Animals</u>	<u>Light spill</u>	<u>Fumes/Smoke from diesel equipment</u>	<u>Aesthetics</u>	<u>Heritage</u>	<u>Fires</u>
Site establishment Material/plant delivery and storage Site amenities Skip bins Hoardings	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓
Strip out Demolition of internal walls, façade and floor furnishings Removal of existing services	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓
Installation of new utilities Installation of structural beams General make good works	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓

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Hazard Control Table

Environmental Hazard	Control	Responsibility for control	Controls reference
Some works undertaken is outside of scope of EWMS:	<ul style="list-style-type: none"> Review EWMS and confirm it is current and applicable to all works being undertaken, As needed, attend site with environmental staff if works in or within 100m of an environmentally sensitive site. 	Project Manager	
Plant and equipment not suitable for the task:	<ul style="list-style-type: none"> Verify that plant and equipment for the task is fit for purpose and site constraints. 	Project Manager	
Site pre-work briefing and local induction not completed:	<ul style="list-style-type: none"> Undertake site pre-work briefing and give local induction. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan Site Environment Control Map SMS-06-FM-4163 Pre-work Briefing
Damage to environmentally sensitive site or receptor:	<ul style="list-style-type: none"> The SEMP must identify any environmentally sensitive sites that may be impacted by the activity. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan Site Environment Control Map SMS-06-FM-4163 Pre-work Briefing
Offensive noise:	<ul style="list-style-type: none"> The SEMP must identify potentially sensitive receivers and identify relevant controls through the noise assessment. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-10-GD-0048 Guide to Managing Noise and Vibration from Rail-related Construction and Maintenance
Dust from works impacting non-Sydney Trains controlled property):	<ul style="list-style-type: none"> Keep vehicles to existing access roads, Daily inspections. 	Project Manager Construction Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-05-GD-0013 Air Quality Guide
Damage to adjacent properties:	<ul style="list-style-type: none"> The SEMP must identify potentially sensitive receivers and relevant controls based on vibration assessment, where required. Liaise with adjacent land holder and undertake agreed actions. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan

Environmental Hazard	Control	Responsibility for control	Controls reference
Traffic disruption around worksites:	<ul style="list-style-type: none"> Implement Traffic Management Plan, Plan all vehicle movements to occur outside of local peak traffic periods, Ensure offsite staging areas in low impact areas, Utilise qualified traffic control staff. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan
Generation of wastes from construction	<ul style="list-style-type: none"> Do not overestimate quantities of materials required, Separate wastes into recyclable categories, Ensure wastes are placed in appropriate containers, Daily inspections, 	Project Manager Construction Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-13-OR-1013 <i>Waste Management</i>
Management of slurry wastes	<ul style="list-style-type: none"> Ensure proper, disposal of slurry offsite, 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-13-WI-0183 <i>Hydrovac Slurry Management</i>
Hydrocarbon / paint spill:	<ul style="list-style-type: none"> Ensure daily plant checklists completed and repairs made as required, Ensure all plant has suitable spill kits and operators trained in use and disposal of used materials, Notify Pollution Incidents to the Safety Incident and Injury Hotline 1800 772 779, Ensure SDS onsite for all stored chemicals. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan EMS-02-WI-0214 <i>Notify Pollution Incidents</i>
Light spill:	<ul style="list-style-type: none"> Locate portable lighting towers so that they are not directed at residential properties, Ensure parked vehicles headlights do not shine into residences, Daily inspections. 	Project Manager Construction Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan
Fumes and smoke from diesel, petrol or LPG equipment including all plant and vehicles:	<ul style="list-style-type: none"> Maintain equipment in accordance with manufacturer's written specification, Ensure plant checklists completed and repairs made as required. Exhaust location selected to minimise offsite impacts 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-16-SR-0057 <i>Workplace Health and Safety Inspection, Testing and Calibration</i>

Environmental Hazard	Control	Responsibility for control	Controls reference
Threats to visual aesthetics including placement of stockpiles, removal of vegetation screens, and creation of visually unattractive structures:	<ul style="list-style-type: none"> • Create or maintain existing hoardings • Consider visual amenity in design phase. 	Project Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan
Heritage	<ul style="list-style-type: none"> • Check the S170 Register for any heritage structures that may be impacted. • Contact Sydney Trains' Heritage Specialist (SER Directorate) for advice regarding Statements of Heritage Impact • Demarcate heritage site to prevent entry into heritage site • If a heritage item is uncovered, stop further disturbance, demarcate the site and contact your environmental support staff 	Project Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan • <i>Sydney Trains Heritage and Conservation Register</i> • <i>EMS-09-PR-0164 Unexpected Archaeological Finds</i>
Fires	<ul style="list-style-type: none"> • Obtain Hot Work permit for site work • Operate in accordance with requirements of Hot Work Permit • Provide firefighting equipment suitable to operations 	Project Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan • <i>SMS-06-FM-0382 Hot Work Permit</i>

Station Refresh			Sydney Trains Incident Hotline: 1800 772 779
Environmental Work Method Statement			Plant and Equipment:
Scope			Plant and Equipment:
<p>Scope of EWMS: Works covered by this EWMS are limited to the 'refurbishment' of the station' including the following elements to meet the requirements Sydney Trains and NSW TrainLink: Station Components Guide (June 2017):</p> <ol style="list-style-type: none"> 1) Maintenance and renewal of the following existing station components: <ol style="list-style-type: none"> a. Flooring, surfaces (including asphalt, tiles, plaster, sandstone, timber surfaces, etc), tuck pointing and tactiles b. Gutters, drains and downpipes, doors and doorways, glazing and footings c. Seats, bubblers, bins, ticketing systems and customer information systems d. Lighting systems and security systems e. Toilets including pans, mirrors, basins and seats f. Stairs including hand rails, tactiles, stair nosing and balustrades 2) Removal of redundant services, removal of redundant fixtures, fittings and operational items (including ticket booths, safes, etc), removal of internal non-load bearing walls and false ceilings 3) Cleaning and pressure washing of station assets and infrastructure 4) Pest bird proofing including netting and spikes <p>Renewal includes upgrading existing components to meet the requirements <i>Sydney Trains and NSW TrainLink: Station Components Guide (June 2017)</i>.</p>	<p>Not in Scope: Works not in scope include:</p> <ul style="list-style-type: none"> • Installation of new components (including toilets, ticketing systems, security systems, customer information systems, etc) • Any alteration or removal of original Heritage fabric without approval • Any alteration, removal or enlargement of the existing buildings or station infrastructure • Any outdoor commercial advertising signage or other advertising infrastructure • Garden Landscaping 	<p>Note: If any works outside of the scope of applicable EWMS then contact your environmental practitioner to determine how environmental impact assessment for the works can proceed.</p> <p>This EWM must be used in conjunction with the Site Environmental Management Plan (SEMP) and Site Environmental Control Map (SECM).</p>	<ul style="list-style-type: none"> • Hand tools/Power tools • Jackhammer • Truck • Concrete saw • High rail equipment • EWP • Platform ladder • Scaffolding • Extraction fan • Core borer • Hoarding • Crane truck • Skip bin • Portable toilets • Oxy cutting equipment • Lighting • Generator • Pressure washer • Whacker packer

Before works commence		
<p>Training/Qualifications required:</p> <ul style="list-style-type: none"> • Operators must be trained & currently accredited to use tools, plant and equipment. • Project manager to have completed online training Environmental Management for Project and EWMS Masterclass 	<p>External notifications:</p> <ul style="list-style-type: none"> • Letter box drop to all affected residences where required. • Assess planning / heritage requirements • Poster signs at stations • Website update 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> • Site Environmental Management Plan • Site Environmental Control Map
During works		
<p>Inspections and Briefings:</p> <ul style="list-style-type: none"> • Pre-work brief, • Daily plant inspections, • Daily site inspections. 	<p>Permits / licences:</p> <ul style="list-style-type: none"> • Heritage s60 approval or s57 exemption from approval or notification as required • Hot works permit 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> • Pollution Incident Notification, • Records of inspection. • Waste receipts
Post works		
<p>Inspections:</p> <ul style="list-style-type: none"> • Post work inspections. 	<p>Site Rehabilitation</p> <ul style="list-style-type: none"> • Usually not required 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> • Post work defect reporting, • Records of inspection • Waste receipts

Environmental Hazard Matrix

Applicable Job Steps	Environmental Hazard																	
	<u>Scope outside EWMS</u>	<u>Unsuitable paint and equipment</u>	<u>Staff unaware</u>	<u>Environmentally sensitive site damage</u>	<u>Erosion and sedimentation</u>	<u>Noise and vibration</u>	<u>Dust (from earthworks)</u>	<u>Damage to adjacent property</u>	<u>Traffic</u>	<u>Wastes</u>	<u>Soil contamination</u>	<u>Hydrocarbon spill</u>	<u>Plants and Animals</u>	<u>Light spill</u>	<u>Fumes/Smoke from diesel equipment</u>	<u>Aesthetics</u>	<u>Heritage</u>	<u>Bush fires</u>
Site establishment, including <ul style="list-style-type: none"> Material/plant delivery and storage Site amenities Skip bins Hoardings Compound establishment Land shipping containers or other temporary buildings 	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Declutter <ul style="list-style-type: none"> Removal redundant equipment and services Removal of floor furnishings and tiles Strip paint 	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Construction, including <ul style="list-style-type: none"> Asphalting Installation of new plumbing Painting and touch ups Fencing Rust repairs Glazing Install bird proofing Toilet refurbishing Ceiling / underside of awning / gable repairs Install new gutters Tuck pointing Stair nosing Crimp safe mesh installation over windows Screen door replacement General make good works Site demobilisation 	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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Hazard Control Table

Environmental Hazard	Control	Responsibility for control	Controls reference
Staff not aware of local hazards and controls	<ul style="list-style-type: none"> Undertake site pre-work briefing and give local induction 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. SMS-06-FM-4163 "Pre-work Briefing".
Damage to environmentally sensitive site or receptor:	<ul style="list-style-type: none"> The SEMP must identify any environmentally sensitive sites that may be impacted by the activity. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. Environmentally Sensitive Site List. SMS-06-FM-4163 "Pre-work Briefing".
Erosion and sedimentation:	<ul style="list-style-type: none"> Develop erosion and sediment control plan for site and install erosion and sediment control structures prior to commencing site work, Maintain erosion and sediment control structures during works and until site has stabilised after completion of works, Provide sediment protection for worksite, Daily inspection. 	Project Manager Site Manager Site Manager Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-14-PR-0012 "Erosion and Sediment Control".
Offensive noise:	<ul style="list-style-type: none"> The SEMP must identify potentially sensitive receivers and identify relevant controls through the noise assessment. 	Project Manager Site Manager Project Manager Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-10-GD-0048 "Guide to Managing Noise and Vibration from Rail-related Construction and Maintenance".
Dust from earth works impacting non-Sydney Trains controlled property):	<ul style="list-style-type: none"> Daily inspections. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-05-GD-0013 "Air Quality Guide".
Damage to adjacent properties:	<ul style="list-style-type: none"> The SEMP must identify potentially sensitive receivers and relevant controls based on vibration assessment, where required. Liaise with adjacent land holder and undertake agreed actions. 	Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan.

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Environmental Hazard	Control	Responsibility for control	Controls reference
Traffic disruption around worksites:	<ul style="list-style-type: none"> Implement Traffic Management Plan, Plan all vehicle movements to occur outside of local peak traffic periods, Ensure offsite staging areas in low impact areas, Utilise qualified traffic control staff. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan.
Generation of wastes from construction (spoil, concrete wastes, litter):	<ul style="list-style-type: none"> Do not overestimate quantities of materials required, Separate wastes into recyclable categories, Ensure wastes are placed in appropriate containers, Daily inspections, Check trucks before leaving worksite, 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-13-OR-1013 "Waste Management".
Soil contamination:	<ul style="list-style-type: none"> Identify potential contaminants prior to commencing work on site, Ensure segregation of potentially contaminated materials from clean materials, Daily inspections. 	Project Manager Site Line Manager Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-07-PR-0004 Contaminated Land Management.
Hydrocarbon / paint spill:	<ul style="list-style-type: none"> Ensure daily plant checklists completed and repairs made as required, Ensure all plant has suitable spill kits and operators trained in use and disposal of used materials, Notify Pollution Incidents to the Safety Incident and Injury Hotline 1800 772 779, Ensure SDS onsite for all stored chemicals. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. EMS-02-WI-0214 Notify Pollution Incidents
Light spill:	<ul style="list-style-type: none"> Locate portable lighting towers/reflective surfaces so that they are not directed at residential properties, Ensure parked vehicles headlights do not shine into residences, Daily inspections. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan.

Environmental Hazard	Control	Responsibility for control	Controls reference
Fumes and smoke from diesel, petrol or LPG equipment including all plant and vehicles:	<ul style="list-style-type: none"> Maintain equipment in accordance with manufacturer's written specification, Ensure plant checklists completed and repairs made as required. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. SMS-16-SR-0057 "Workplace Health and Safety Inspection, Testing and Calibration."
Threats to visual aesthetics including alteration to the character of the place or, creation of visually unattractive structures	<ul style="list-style-type: none"> Create or maintain existing visual screens using vegetation, shade cloth on fences or natural site features, Consider visual amenity in design phase, 	Site Manager Project Manager	<ul style="list-style-type: none"> Site Environmental Management Plan.
Heritage	<ul style="list-style-type: none"> Demarcate heritage site or area to prevent entry or inadvertent damage to heritage items or fabric If any unexpected finds are uncovered stop works and contact the Environmental Professional in accordance with the Unexpected Archaeological Finds Procedure. 	Project Manager Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan Sydney Trains Heritage and Conservation Register EMS-09-PR-0164 Unexpected Archaeological Finds
Bush and/or grass fires	<ul style="list-style-type: none"> Obtain Hot Work permit for site work Operate in accordance with requirements of Hot Work Permit Provide firefighting equipment suitable to operations 	Project Manager Site Manager Line Manager	<ul style="list-style-type: none"> Site Environmental Management Plan SMS-06-FM-0382 Hot Work Permit

Hazardous Materials Removal and Replacement			Sydney Trains Incident Hotline: 1800 772 779
Environmental Work Method Statement			Plant and Equipment:
Scope			Plant and Equipment:
<p>Scope of EWMS: Works covered by this EWMS are limited to the following activities on Sydney Trains assets (including buildings, rollingstock and electrical equipment):</p> <ul style="list-style-type: none"> • Removal, encapsulation and/or replacement of asbestos containing materials (ACM) • Removal and/or encapsulation of lead-based paint • Removal and/or replacement of light fittings containing polychlorinated biphenyls (PCBs) • Removal of materials containing synthetic mineral fibres (SMFs) • Vacuum removal of hazardous material debris & dust <p>Note: All works:</p> <ul style="list-style-type: none"> • must be undertaken in accordance with WHS Act and relevant codes of practice and • must comply with all aspects of the Sydney Trains SMS 	<p>Not in Scope: Works not in scope include:</p> <ul style="list-style-type: none"> • Contaminated Land remediation • Removal and alteration of original heritage fabric without approval 	<p>Note: If any works outside of the scope of applicable EWMS then contact your environmental practitioner to determine how environmental impact assessment for the works can proceed</p> <p>This EWMS must be used in conjunction with the Site Environmental Management Plan (SEMP) and Site Environmental Control Map (SECM)</p>	<ul style="list-style-type: none"> • Hand tools/Power tools • Truck • Concrete saw • High rail equipment • EWP • Platform ladder • Scaffolding • Extraction fan • Core borer • Hoarding • Crane truck • Skip bin • Portable toilets • Oxy cutting equipment • Lighting • Generator • Pressure washer • Manitou • Asbestos / lead vacuum cleaner
Before works commence			
<p>Training/Qualifications required:</p> <ul style="list-style-type: none"> • Contractor must be competent and trained as per SMS training requirements. • Project Manager to have completed Environmental Management for Projects online training and EWMS Planning Pathway Masterclass. 	<p>External notifications:</p> <ul style="list-style-type: none"> • Letter box drop to all affected residences where required. • Assess planning / heritage requirements • Poster signs at stations • Website update • Signage 	<p>Records/Reporting:</p> <ul style="list-style-type: none"> • Site Environmental Management Plan • Site Environmental Control Map • Pre work dilapidation survey as required • Hazardous Materials Register • Asbestos Management Plan / 	

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	<ul style="list-style-type: none"> • WorkCover notification 	Asbestos Removal Control Plan	
During works			
Inspections and Briefings: <ul style="list-style-type: none"> • Pre-work brief • Daily plant inspections • Daily site inspections 	Permits / licences: <ul style="list-style-type: none"> • Heritage s60 approval or s57 exemption from approval or notification as required • Asbestos removal contractors must have an appropriate asbestos removal licence Class A - friable or bonded Class B - bonded • Licenced Asbestos Assessor / or competent person 	Records/Reporting: <ul style="list-style-type: none"> • Waste tracking documentation / receipts • NSW EPA Waste Locate • Asbestos clearance certificate • Air monitoring results • Pollution Incident Notification • Records of inspection 	
Post works			
Inspections: <ul style="list-style-type: none"> • Post work inspections 	Site Rehabilitation <ul style="list-style-type: none"> • Usually not required 	Records/Reporting: <ul style="list-style-type: none"> • Post work dilapidation / defect survey • Records of inspection • Updated Asbestos Management Plan • Updated Hazardous Materials Register 	

Environmental Hazard Matrix

Applicable Job Steps	Environmental Hazard																
	<u>Scope outside EWMS</u>	<u>Unsuitable plant and equipment</u>	<u>Staff unaware</u>	<u>Environmentally sensitive site damage</u>	<u>Erosion and sedimentation</u>	<u>Noise and vibration</u>	<u>Dust (from earthworks)</u>	<u>Damage to adjacent property</u>	<u>Traffic</u>	<u>Wastes</u>	<u>Soil contamination</u>	<u>Hydrocarbon spill</u>	<u>Plants and Animals</u>	<u>Light spill</u>	<u>Fumes/Smoke from diesel equipment</u>	<u>Aesthetics</u>	<u>Heritage</u>
Site establishment, including <ul style="list-style-type: none"> Material/plant delivery and storage Site amenities Skip bins Hoardings Compound establishment Temporary containers or other temporary buildings 	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓		✓
Removal / management of: <ul style="list-style-type: none"> ACM; Lead-based paint systems; PCBs in lights SMFs; Dust and debris (containing asbestos and / or lead pain flakes) 	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓		✓
Reinstatement: <ul style="list-style-type: none"> Reinstatement of removed material Painting and touch ups Rust repairs General make good works Site demobilisation 	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓		✓

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Environmental Hazard	Control	Responsibility for control	Controls reference
Dust from works	<ul style="list-style-type: none"> • Daily inspections. • Engage appropriately experienced and licenced contractor • Use wetting techniques • Restrict dust generating activities (such as vehicle traffic speed / sweeping) • Limit works completed in windy weather • Air monitoring to determine effectiveness of controls 	Site Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan. • EMS-05-GD-0013 <i>Air Quality</i>
Damage to adjacent properties:	<ul style="list-style-type: none"> • Liaise with adjacent land holder and undertake agreed actions, • Conduct pre and post work dilapidation surveys, including detailed 'time and date' stamped site photos. 	Project Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan.
Traffic disruption around worksites:	<ul style="list-style-type: none"> • Implement Traffic Management Plan, • Plan all vehicle movements to occur outside of local peak traffic periods (where possible), • Ensure offsite staging areas in low impact areas, • Utilise qualified traffic control staff. 	Site Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan.
Hydrocarbon/paint spill:	<ul style="list-style-type: none"> • Ensure daily plant checklists completed and repairs made as required, • Ensure all plant has suitable spill kits and operators trained in use and disposal of used materials, • Notify Pollution Incidents to the Safety Incident and Injury Hotline 1800 772 779, • Ensure SDS onsite for all stored chemicals. 	Site Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan. • EMS-02-WI-0214 <i>Notify Pollution Incidents</i>
Light spill:	<ul style="list-style-type: none"> • Locate portable lighting towers/reflective surfaces so that they are not directed at residential properties, • Ensure parked vehicles headlights do not shine into residences, • Daily inspections. 	Site Manager	<ul style="list-style-type: none"> • Site Environmental Management Plan.

Environmental Hazard	Control	Responsibility for control	Controls reference
Fumes and smoke from diesel, petrol or LPG equipment including all plant and vehicles:	<ul style="list-style-type: none"> Maintain equipment in accordance with manufacturer's written specification, Ensure plant checklists completed and repairs made as required. 	Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan. <i>SMS-16-SR-0057 Workplace Health and Safety Inspection, Testing and Calibration</i>
Impact to a heritage item	<ul style="list-style-type: none"> Actual and potential impacts on heritage will be assessed as part of the SEMP Where required, heritage approvals and/or exemptions must be obtained prior to any works commencing on heritage assets Appropriate heritage controls will be identified through the process and implemented on site. If any unexpected finds are uncovered stop works and contact the Environmental Professional in accordance with the Unexpected Archaeological Finds Procedure. 	Project Manager Project Manager Site Manager Site Manager	<ul style="list-style-type: none"> Site Environmental Management Plan <i>Sydney Trains Heritage and Conservation Register</i> <i>EMS-09-PR-0164 Unexpected Archaeological Finds</i>