

WSU CONSTRUCTION ENVIRONMENTAL COMPLIANCE REPORT JULY – DECEMBER 2015

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1 Introduction

This Construction Environmental Compliance Report (CECR) has been prepared by Novo Rail to address Condition 5 of the Wynyard Station Upgrade (WSU) Conditions of Approval. WSU Condition of Approval 5 requires that the first CECR be prepared and submitted to Transport for NSW (TfNSW) within six months from the commencement of construction of the WSU project.

Novo Rail has undertaken the following works during the period from July to December 2015 for the WSU project:

- Hazardous material removal at Concourse level and Platforms
- Chemical peel of lead paint at Concourse level and Platforms
- Installation of hoarding at Concourse level
- Temporary relocation/installation of ticket gates
- Completion of temporary staff amenities and site office on B1/B2 basement levels
- Demolition of suspended ceiling and floor coverings
- Demolition of existing retail and commercial spaces at Concourse level
- Demolition of Station Managers Office (SMO) and public toilets
- Relocation of Sydney Trains scrubber, bin and signage rooms
- Removal of redundant services
- Painting of ceiling at Concourse level
- Plumbing works
- Cabling works
- Fire safety works
- Commencement of construction of new SMO, public toilets and LV room
- Commencement of tiling works on Platforms

2 Compliance with WSU Conditions

The compliance with the WSU approval conditions are addressed in Appendix A.

3 Compliance with EPL

The WSU project is exempt from an Environment Protection Licence (EPL) and does not need to comply with any EPL conditions.

4 TfNSW Sustainability Design Guideline Performance

The WSU project is currently on track to achieve a Silver Rating with an overall percentage of 72. There was limited scope for WSU to achieve a higher rating due to limited applicability of some of the sustainability initiatives set out in the Sustainable Design Guidelines.

At Construction Stage, WSU has selected 13 out of 15 of the compulsory initiatives and 54 out of 75 of the discretionary sustainability design guideline initiatives.

The most recent version of the Sustainability Checklist is at revision 22 and is available on Asite under document reference number SUP01-CHL-EN-0001.

5 Environmental Control

The implementation and effectiveness of environmental controls is monitored regularly Novo Rail environmental site inspections and also by the TfNSW Environment and Planning Manager during weekly inspections.

During the reporting period from July to December 2015 a total of 22 site inspections were undertaken by the WSU Project Environmental Representative (PER), 18 of them together with the TfNSW Environment and Planning Manager. During these inspections, 5 observations were made and opportunities for improvement were identified. All of these opportunities were addressed within 5 working day, but often on the same day whenever possible. The observations included:

- Update of ECM to reflect changes in worksite layouts
- Protection of floor drains during construction
- Removal of bucket with washout water
- Improvement of housekeeping

Four environmental incidents were reported over the past six months, consisting of:

- Tiling washout water was discharged into floor drain during clean-up after WE08 Possession
- Minor paint spill of water based paint in Wynyard Lane on 19 October.
- Spill of waste water at Wynyard Lane Car Park site compound on 15 December 2015.
- Three of seven heritage mirrors were removed from Area 7 on 18 December 2015 without consulting the heritage specialist.

All incidents were addressed immediately, cleaned up and reported accordingly following the Environmental Incident Procedure as outlined in the Construction Environmental Management Plan (CEMP).

6 Environmental Monitoring

6.1 Water Discharge

No construction water was discharged during the reporting period. The WSU project site is fully contained within Wynyard Station. All waste water is to be picked up via vacuum truck and disposed of as liquid waste at a licensed waste facility.

6.2 Noise Monitoring

Noise monitoring is carried out in accordance with the Construction Noise and Vibration Management Plan (CNVMP) to ensure compliance with noise predictions in the CNVMP.

Novo Rail undertook noise monitoring on 35 occasions during the reporting period. Monitoring was undertaken during construction activities that had a potential ‘high risk’ of resulting in excessive noise to customers within Wynyard Station, in particular during Possession works.

Whenever elevated noise measurements were recorded, the construction methodology has been amended and/or additional mitigation measure implemented. Where very noisy works are anticipated, echo barriers (and sometimes double layers of echo barriers) and smoke baffles have been installed to minimise potential impacts.

Table 1 below summarises the noise monitoring occasions for WSU:

Table 1: Noise monitoring occasions

Month	Noise Monitoring Occasions	Possession Week
Jul-15	<i>nil</i>	<i>n/a</i>
Aug-15	13	WE08/WE09
Sep-15	<u><i>nil</i></u>	<u><i>n/a</i></u>
Oct-15	6	WE16
Nov-15	16	WE19/WE21
Dec-15	<i>nil</i>	<i>n/a</i>
Total	35	

See Appendix B for results of noise monitoring undertaken on these occasions.

6.3 Vibration Monitoring

Vibration monitoring was not undertaken during the reporting period. Earlier vibration monitoring during the Early Works phase of the project has indicated that vibration from proposed WSU work activities would not exceed vibration from caused by operating trains in the station.

7 Other Environmental Indicators

7.1 Waste Management

Monitoring and recording of construction waste was been undertaken from the initiation of the project. Waste records cover general waste, asbestos, demolition waste (concrete waste) and metal recycling. Wherever possible, waste is being recycled, however this is not always possible due to contamination. Waste dockets are being received and recorded in the WSU Waste Register (SUP01-REG-EN-0006) on Asite.

Waste generated by the Project Office at 68 Pitt St was not monitored as it is removed by a subcontractor of the building manager who is unable to report on waste volumes on a tenancy basis.

Table 2 provides the recorded waste disposal information for the reporting period:

Table 2: Waste generated (tonnes)

Material	Jul	Aug	Sep	Oct	Nov	Dec	Total
Landfill	18.27	46.32	4.26 ¹	17.54	10.05	4.331	97.63
Recycled waste	133.72	364.58	92.76	58.64	131.66	81.041	862.40
Total	151.99	410.90	97.02	76.18	141.71	85.37	960.03

¹ Incomplete data at the point of report writing

7.2 Vegetation Removal

No vegetation clearing was undertaken during the reporting period.

7.3 Environmental Complaints

A total of five environmental complaints have been received during the reporting period. All complaints were addressed within response timeframes required by TfNSW. The complaints received can be categorised as follows:

- Air Quality on 18 August 2015
- Noise (construction) on 30 September 2015
- Noise (construction) on 1 October 2015
- Dust/Air Quality on 23 October 2015
- Noise (construction) on 1 December 2015

7.4 Construction Environmental Management Plan

The CEMP (SUP01-PLN-EN-0001) has been reviewed and updated on 20 July 2015, and was formally endorsed by TfNSW on 27 August 2015. The next review is due on 27 February 2016.

8 Conclusion

Based on the evidence provided above it is concluded that the Wynyard Station Upgrade project was fully compliant with the TfNSW environmental requirements and the conditions of approval.

APPENDIX A

Compliance with WSU Project Approval Conditions

Condition No.	Requirement	Comments
1 (TfNSW)	<p>The Project shall be carried out generally in accordance with the EIA for this Project, which comprises the following documents:</p> <ul style="list-style-type: none"> • Wynyard Station Upgrade • Review of Environmental Factors, AECOM, December 2014 • Wynyard Station Upgrade Submissions Report, AECOM, March 2015 • Wynyard Station Upgrade Determination Report, TfNSW, March 2015 <p>In the event of an inconsistency between these conditions and the EIA, these conditions will prevail to the extent of the inconsistency.</p>	<p>Noted.</p> <p>All construction activities at WSU have been carried out in accordance with the EIA for the project and in compliance with the CEMP and relevant subplans reflecting the EIA requirements.</p>
2 (TfNSW)	<p>Any modification to the project as approved in the EIA would be subject to further assessment by TfNSW. This assessment would need to demonstrate that any environmental impacts resulting from the modifications have been minimised.</p>	<p>N/A - there were no project modifications in the reporting period.</p>

Condition No.	Requirement	Comments
3 (TfNSW)	These conditions do not relieve the Proponent of the obligation to obtain all other licences, permits, approvals and land owner consents from all relevant authorities and land owners as required under any other legislation for the Project. The Proponent shall comply with the terms and conditions of such licences, permits, approvals and permissions.	Noted. Relevant licences and approvals obtained in the last reporting period consist of Road Occupancy Licences issued by RMS and Temporary Work permits through the City of Sydney. Evidence include: <ul style="list-style-type: none"> • SUP01-APP-SA-0017 - ROL - George St Ramp – Jul 2015 • SUP01-APP-SA-0018 - Temp Works - George St Ramp – Jul 2015 • SUP01-APP-SA-0019 - ROL - George St Ramp – Aug 2015 • SUP01-APP-SA-0020 - Temp Works - George St Ramp – Aug 2015 • SUP01-APP-SA-0021 - ROL - George St Ramp – Sep 2015 • SUP01-APP-SA-0022 - Temp Works - George St Ramp – Sep 2015 • SUP01-APP-SA-0023 - ROL - George St Ramp – Oct 2015 • SUP01-APP-SA-0024 - Temp Works - George St Ramp – Oct 2015 • SUP01-APP-SA-0025 - Temp Works - Wynyard Lane (Concrete Pumping) • SUP01-APP-SA-0026 - Temp Works - Wynyard Lane (Concrete Pumping) • SUP01-APP-SA-0027 - Temp Works - George St Ramp – Nov 2015 • SUP01-APP-SA-0028 - ROL - George St Ramp – Nov 2015 • SUP01-APP-SA-0029 - Work Zone Extension - Wynyard Lane • SUP01-APP-SA-0030 – Temp Works Extension - Wynyard Lane (MRV) • SUP01-APP-SA-0031 - ROL - George St Ramp – Dec 2015 • SUP01-APP-SA-0032 - Temp Works - George St Ramp – Dec 2015 • SUP01-APP-SA-0033 - Temp Works - Wynyard Lane (Concrete Pumping) • SUP01-APP-SA-0034 - Temp Works - Carrington St (Concrete Pumping) • SUP01-APP-SA-0035 - ROL - George St Ramp – Mid-Dec 2015 • SUP01-APP-SA-0036 - Temp Works - George St - Circular Quay - Nov 2015

Condition No.	Requirement	Comments
4 (TfNSW)	<p>A pre-construction environmental compliance matrix (PECM) for the Project (or such stages of the Project as agreed to by the Principal Manager Environmental Management(PMEM)) shall be prepared detailing compliance with all relevant conditions and mitigation measures prior to commencement of construction. The PECM shall also include details of approvals, licences and permits required to be obtained under any other legislation for the Project.</p> <p>The Proponent shall:</p> <ul style="list-style-type: none"> (a) Submit a copy of the PECM to the Environment & Planning Manager (EPM) for review. The EPM is to be given a minimum period of 7 days to review and provide any comments to the Proponent in relation to the PECM. (b) Upon completion of the EPM review period, submit a copy of the PECM to the Principal Manager Environmental Management (PMEM) for approval, at least 14 days (or within such time as otherwise agreed to by the PMEM) prior to commencement of construction of the Project. 	<p>N/A - A pre-construction environmental compliance matrix (PECM) for the Project was submitted to the TfNSW Environment & Planning Manager (EPM) before the start of the reporting period.</p>
5 (TfNSW)	<p>The Proponent shall prepare a construction environmental compliance report (CECR) which addresses the matters listed in the CoAs. The first CECR shall report on the first six months of construction and be submitted within six weeks of expiry of that period (or at any other time interval agreed to by the PMEM). CECRs shall be submitted no later than six months after the date of submission of the preceding CECR (or at other such periods as requested by the PMEM) for the duration of construction.</p>	<p>This report.</p>
6 (TfNSW)	<p>A pre-operation compliance report (POCR) for the Project shall be prepared, prior to commencement of operation of the Project. The POCR shall detail compliance with all the conditions of approvals, licences and permits required to be obtained under any other legislation for the Project.</p> <p>The Proponent shall:</p> <ul style="list-style-type: none"> (a) Submit a copy of the POCR to the EPM for review. The EPM is to be given a minimum period of 7 days to review and provide any comments to the Proponent in relation to the POCR. (b) Upon completion of the EPM review period submit a copy of the POCR to the PMEM (or nominated delegate) and PMS for approval. The POCR is to be provided to the PMEM at least one month prior to the scheduled operation of the Project (or such time as otherwise agreed to by the PMEM). 	<p>N/A - a pre-operation compliance report (POCR) for the Project will be prepared prior of operation.</p>

Condition No.	Requirement	Comments
<p>7 (TfNSW)</p>	<p>The Proponent shall develop and implement a community liaison plan (CLP) to engage with government agencies, relevant councils, landowners, community members and other relevant stakeholders (such as utility and service providers, bus companies and businesses). The CLP shall comply with the obligations of these conditions and should include all items listed in the CoAs. Sub-plans to the CLP will be developed as required. These sub-plans will detail site-specific consultation and communication requirements for construction works that impact residents, other stakeholders and businesses. They will also identify further mitigation measures and processes to reduce construction impacts.</p> <p>The CLP shall be prepared to the satisfaction of the Technical Director Project Communications (TDPC) at least 14 days prior to the commencement of construction and implemented, reviewed and revised as appropriate (or at the direction of the TDPC) during construction of the Project.</p>	<p>The CLP has been developed and implemented, and is available on Asite (SUP01-PLN-MG-0005 - Revision 2).</p> <p>Revision 2 of the plan was reviewed and approved by TfNSW on 21 August 2015.</p>
<p>8 (TfNSW)</p>	<p>The local community shall be advised of any activities related to the Project with the potential to impact upon them.</p> <p>Prior to any site activities commencing and throughout the Project duration, the community is to be notified of works to be undertaken, the estimated hours of construction and details of how further information can be obtained (i.e. contact telephone number/email, website, newsletters etc) including the 24 hour construction response line number.</p> <p>Construction-specific impacts including information on traffic changes, access changes, detours, services disruptions, public transport changes, high noise generating work activities and work required outside the nominated working hours shall be advised to the local community at least seven (7) days prior to such works being undertaken or other period as agreed to by the TDPC or as required by the Environment Protection Authority (EPA) (where an Environment Protection Licence (EPL) is in effect).</p>	<p>Community Construction Notifications are sent to stakeholders on a monthly basis. A copy of the notifications is available on Asite.</p> <p>SUP01 – Wynyard Station Upgrade\20 Development\06 Stakeholder Management\02 Key stakeholder notifications</p> <p>A 24-hour Construction response line (1800 775 465) is set up and operated by TfNSW.</p>

Condition No.	Requirement	Comments
<p>9 (TfNSW)</p>	<p>The Proponent shall provide electronic information (or details of where hard copies of this information may be accessed by members of the public) related to the Project, on dedicated pages within its existing website, including:</p> <p>(a) A copy of the documents referred to under condition 1 of this approval and any documentation supporting modifications to the approval or related approvals that may be granted in the future.</p> <p>(b) A copy of each relevant licence approval or permit required and obtained in relation to the Project.</p> <p>(c) A list of environmental management reports that are publicly available.</p> <p>(d) Details of construction information.</p> <p>(e) 24 hour contact telephone number for information and complaints.</p> <p>Detailed updates of work progress and construction activities shall be regularly provided on the website.</p> <p>All documents must be compliant with the Web Content Accessibility Guidelines (WCAG) v2.0.</p>	<p>The project website has been established and can be accessed at: http://www.transport.nsw.gov.au/projects-wynyard-station-upgrade</p> <p>The website contains electronic information related to the project as well as detailed updates of work progress and construction activities.</p>
<p>10 (TfNSW)</p>	<p>The Proponent shall set up a 24 hour construction response line number.</p> <p>Details of all complaints received during construction are to be recorded on a complaints register. A verbal response to phone enquiries on what action is proposed to be undertaken is to be provided to the complainant within two (2) hours during all times construction is being undertaken and within 24 hours during non-construction times (unless the complainant agrees otherwise). A detailed written response is to be provided to the complainant within seven (7) calendar days. Responses to written complaints (email/letter) should be provided within 48 hours of receipt of the communication.</p> <p>Information on all complaints received during the previous 24 hours and response times shall be forwarded to the EPM each working day.</p>	<p>A 24-hour Construction response line (1800 775 465) is set up and operated by TfNSW. The Complaints Management methodology is out lined in Section 16.3 of the CEMP (SUP01-PLN-EN-0001).</p> <p>TfNSW provides a daily update on all complaints received and the information is shared with the project management team via email.</p> <p>The following complaints were received during this reporting period</p> <ul style="list-style-type: none"> • Air Quality on 18 August 2015 • Noise (construction) on 30 September 2015 • Noise (construction) on 1 October 2015 • Dust/Air Quality on 23 October 2015 • Noise (construction) on 1 December 2015

Condition No.	Requirement	Comments
11 (TfNSW)	<p>Subject to landowner agreement, property condition surveys shall be completed prior to piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction (Designated Works) in the vicinity of all heritage listed buildings and other sensitive structures within 25 metres from the edge of the Designated Works unless otherwise determined following geotechnical and vibration assessment as endorsed by a qualified geotechnical engineer and as approved by the PMEM as not likely to be adversely affected.</p> <p>Property condition surveys need not be undertaken if a risk assessment indicates buildings/structures/roads will not be affected as determined by a qualified geotechnical and construction engineering expert with appropriate registration on the National Professional Engineers Register prior to commencement of Designated Works.</p> <p>Selected potentially sensitive buildings and/or structures shall first be surveyed prior to the commencement of the Designated Works and again immediately upon completion of the Designated Works.</p> <p>All owners of assets to be surveyed, as defined above, are to be advised of the scope and methodology of the survey and the process for making a claim regarding property damage within a reasonable time (not less than 14 days) prior to commencement of the surveys.</p> <p>A copy of the survey(s) shall be given to each affected owner. A register of all properties surveyed shall be maintained.</p> <p>Any damage to buildings, structures, lawns, trees, sheds, gardens etc as a result of construction activity direct and indirect (i.e. including vibration and groundwater changes) shall be rectified at no cost to the owner(s).</p>	<p>Property Condition Surveys have been completed for Wynyard Station.</p> <p>A copy of the surveys were passed on to the affected owner.</p> <p>A register of all reports is kept on Asite at: SUP01 - Working Environment\30 Execution\00 Project Management\03 Registers</p>
12 (TfNSW)	<p>Prior to the commencement of construction, all contractors shall be inducted by the Proponent on the key Project interfaces and associated environmental risks and procedures.</p>	<p>Environmental risks and procedures are communicated through the WSU Site Induction Presentation on Asite: SUP01 - Working Environment\30 Execution\11 Safety\03 Site Induction</p> <ul style="list-style-type: none"> • SUP01-PRE-SA-0001
13 (TfNSW)	<p>Construction works shall be undertaken in accordance with the Proponent's Environmental Management System(s) (EMS) which has been accredited as ISO14001 compliant.</p>	<p>WSU has adopted the Laing O'Rourke Australia Environmental Management System which is certified to ISO 14001.</p> <p>https://sms-ems.laingorourke.com.au/ems/default.htm</p>

Condition No.	Requirement	Comments
<p>14 (TfNSW)</p>	<p>The Proponent shall prepare a CEMP prior to commencement of construction which addresses the matters listed in the CoAs. The CEMP shall:</p> <ul style="list-style-type: none"> (a) Comply with the CoA, conditions of any licences, permits or other approvals issued by government authorities for the Project, all relevant legislation and regulations, and accepted best practice management. (b) Be prepared in accordance with the Guideline for Preparation of Environmental Management Plans (Department Infrastructure, Planning and Natural Resources, 2004). <p>The Proponent shall:</p> <ul style="list-style-type: none"> (a) Consult with government agencies and relevant service/utility providers as part of the preparation of the CEMP. (b) Submit a copy of the CEMP to the EPM for review. The EPM is to be given a minimum period of 7 days to review and provide any comments to the Proponent in relation to the CEMP. (c) Submit a copy of the CEMP to the PMEM (or nominated delegate) for approval upon completion of the EPM review period, at least 14 days prior to commencement of construction (or such time as is otherwise agreed to by the PMEM). (d) Review and update the CEMP at minimum 6-monthly intervals, and in response to any actions identified as part of any audit of the document. (e) Ensure updates to the CEMP are to be made within 7 days of the completion of the review or receipt of actions identified by any audit of the document, and be submitted to the EPM for approval. <p>The CEMP must be approved by the PMEM prior to the commencement of construction work associated with the Project.</p>	<p>These matters are addressed in the WSU CEMP (SUP01-PLN-EN-0001).</p> <p>Extensive consultation has been undertaken during the project development phase of WSU and included government agencies and utility providers. A complete list is included in Section 11.1 of the CEMP.</p> <p>Please refer to page 2 of the CEMP for document status, review history and approval dates.</p>

Condition No.	Requirement	Comments
<p>15 (TfNSW)</p>	<p>The Proponent shall prepare an ECM in accordance with TfNSW’s Guide to Preparing ECMs prior to the commencement of construction for implementation for the duration of construction. The ECM is to be endorsed by the EMR and may be prepared in stages as set out in the CEMP.</p> <p>The Proponent shall submit a copy of the ECM to the EMR for review and endorsement. The EMR is to be given a minimum period of 7 days to review and endorse the ECM. Following receipt of the EMR’s endorsement, the ECM shall be submitted to the PMEM (or nominated delegate) for approval, at least 14 days prior to commencement of construction (or such time as is otherwise agreed to by the PMEM).</p> <p>The ECM shall be prepared as a map – suitably enlarged (e.g. A3 size or larger) for mounting on the wall of a site office and included in site inductions, supported by relevant written information.</p> <p>Updates to the ECM shall be made within 7 days of the completion of the review or receipt of actions identified by any EMR audit of the document, and be submitted to the EMR for approval.</p>	<p>ECMs have been prepared and were supplied to TfNSW for review and endorsement. All ECMs are available on Asite.</p> <p>SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p> <ul style="list-style-type: none"> • SUP01-FG-EN-0001 (Mitigations) • SUP01-PLN-EN-0002 (Maps) • SUP01-PLN-EN-0010 (Heritage)
<p>16 (TfNSW)</p>	<p>Construction noise and vibration mitigation measures shall be implemented through the CEMP, in accordance with TfNSW’s Construction Noise Strategy and the EPA Interim Construction Noise Guideline (July 2009). The mitigation measures shall include all items listed in the CoA. Monitoring shall be undertaken, but not limited to:</p> <ul style="list-style-type: none"> • for works that have the potential to result in exceedances • periodically during the construction program as the works progress. • measurements would also be undertaken in response to complaints. <p>The results would be reviewed to determine if additional mitigation measures are required.</p>	<p>A detailed Construction Noise & Vibrations Management Plan has been prepared that demonstrates how construction noise and vibration mitigation measures are implemented and complied with.</p> <p>The Management Plan is available on Asite:</p> <p>SUP01-PLN-EN-0014 SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents Noise and Vibration Compliance</p> <p>Monitoring is being undertaken when construction activities with potential high noise impact are being undertaken eg during Possessions.</p> <p>Evidence includes:</p> <ul style="list-style-type: none"> • SUP01-DS-EN-0002 - WSU WE08 Noise Monitoring Results • SUP01-DS-EN-0003 - WSU WE09 Noise Monitoring Results • SUP01-DS-EN-0004 - WSU Noise Monitoring Result 2015.09.25 • SUP01-DS-EN-0005 - WE16 WSU Noise Monitoring • SUP01-DS-EN-0006 - WE 19 - WSU Noise Monitoring • SUP01-DS-EN-0007 - WSU WE21 Noise Monitoring

Condition No.	Requirement	Comments
17 (TfNSW)	<p>Vibration (other than from blasting) resulting from construction and received at any structure outside of the Project shall be limited to:</p> <p>(a) For structural damage vibration - German Standard DIN 4150: Part 3 – 1999: Structural Vibration in Buildings: Effects on Structures.</p> <p>(b) For human exposure to vibration – the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration: A Technical Guideline (DEC 2006).</p> <p>These limits apply unless otherwise approved by the PMEM through the CEMP.</p>	<p>These vibration criteria have been addressed in the Construction Noise & Vibrations Assessment Report (SUP01-REP-EN-0002) which is available on Asite.</p> <p>SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p>
18 (TfNSW)	<p>Non-tonal reversing beepers (or an equivalent mechanism) shall be fitted and used on all construction vehicles and mobile plant regularly used on site (i.e. greater than one day) and for any out of hours work.</p>	<p>Non-tonal reversing beepers have been addressed in the Construction Noise & Vibrations Assessment Report (SUP01-REP-EN-0002) which is available on Asite.</p> <p>SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p> <p>All construction vehicles and plant used on site were fitted with non-tonal reversing beepers.</p>
19 (TfNSW)	<p>Potentially affected pre-schools, schools, universities and any other affected permanent educational institutions shall be consulted in relation to noise mitigation measures to identify any noise sensitive periods (e.g. exam periods). As much as reasonably practicable, noise intensive construction works in the vicinity of affected educational buildings are to be minimised.</p>	<p>Noise Impact on Educational Facilities has been addressed in the Construction Noise & Vibrations Assessment Report (SUP01-REP-EN-0002) which is available on Asite.</p> <p>SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p>
20 (TfNSW)	<p>If previously unidentified contamination is identified within the site, the Proponent is to determine whether there is a Duty to Report under section 60 of the Contaminated Land Management Act 1997, and notify the EPA in accordance with the EPA’s Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (2009).</p>	<p>The regulatory notification procedure is outlined in Section 16.4 of the CEMP (SUP01-PLN-EN-0001).</p> <p>Any previously unidentified contamination identified is being assessed by the occupational hygienist who is issuing an inspection report (and clearance certificate if removed).</p> <p>Asbestos was detected on 13 occasions during the reporting periods, generally comprising fibrous insulation material or asbestos containing fibre cement debris. Lead dust was also identified, generally within accessible ceiling space and floor surfaces.</p> <p>All report results are listed in:</p> <ul style="list-style-type: none"> • HazMat register (SUP01-REG-EN-0004) • HazMat Tracker (SUP01-FG-EN-0002).

Condition No.	Requirement	Comments
<p>21 (TfNSW)</p>	<p>If previously unidentified contamination (excluding asbestos) is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and report prepared to determine the nature, extent and degree of any contamination. The level of reporting must be appropriate for the identified contamination in accordance with EPA Guidelines for Consultants Reporting on Contaminated Sites.</p> <p>The Proponent shall submit a copy of the report to the PMEM for consideration. The PMEM shall determine whether consultation with the relevant council and/or EPA is required prior to continuation of Construction works within the affected area.</p>	<p>The stop-work procedure for unidentified contamination finds is outlined in the WSU Hazardous Materials Management Plan (SUP01-PLN-EN-0005), which is available on Asite: SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p> <p>Any previously unidentified contamination identified is being assessed by the occupational hygienist who is issuing an inspection report (and clearance certificate if removed). No previously unidentified contamination discovered during the reporting period that triggered a Duty to Report.</p> <p>All report results are listed in:</p> <ul style="list-style-type: none"> • HazMat register (SUP01-REG-EN-0004) • HazMat Tracker (SUP01-FG-EN-0002).
<p>22 (TfNSW)</p>	<p>If previously unidentified asbestos contamination is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and report prepared to determine the nature, extent and degree of the asbestos contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA and WorkCover Guidelines and include the proposed methodology for the remediation of the asbestos contamination. Remediation activities must not take place until receipt of the investigation report.</p> <p>Works may only recommence upon receipt of a validation report from a suitably qualified contamination specialist that the remediation activities have been undertaken in accordance with the investigation report and remediation methodology.</p>	<p>The stop-work procedure for unidentified asbestos contamination is outlined in the WSU Asbestos Removal Control Plan (SUP01-PLN-EN-0006), which is available on Asite: SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p> <p>Any previously unidentified asbestos identified is being assessed by the occupational hygienist who is issuing an inspection report (and clearance certificate if removed by a licensed asbestos removalist).</p> <p>Asbestos was detected on 13 occasions during the reporting periods, generally comprising fibrous insulation material or asbestos containing fibre cement debris. Where the asbestos was removed, clearance certificates have been provided.</p> <p>All report results are listed in:</p> <ul style="list-style-type: none"> • HazMat register (SUP01-REG-EN-0004) • HazMat Tracker (SUP01-FG-EN-0002).

Condition No.	Requirement	Comments
23 (TfNSW)	<p>Construction hazard and risk issues associated with the use and storage of hazardous materials shall be addressed through risk management measures, which shall be developed by the construction contractor prior to construction as part of the overall CEMP, in accordance with relevant EPA guidelines, TfNSW Chemical Storage and Spill Response Guideline and Australian and ISO standards. These measures shall include:</p> <p>(a) The storage of hazardous materials, and refuelling/maintenance of construction plant and equipment to be undertaken in clearly marked designated areas that are designed to contain spills and leaks.</p> <p>(b) Spill kits, appropriate for the type and volume of hazardous materials stored or in use, to be readily available and accessible to construction workers. Kits to be kept at hazardous materials storage locations, in site compounds and on specific construction vehicles. Where a spill to a watercourse is identified as a risk, spill kits to be kept in close proximity to potential discharge points in support of preventative controls.</p> <p>(c) All hazardous materials spills and leaks to be reported to site managers and actions to be immediately taken to remedy spills and leaks.</p> <p>(d) Training in the use of spill kits to be given to all personnel involved in the storage, distribution or use of hazardous materials.</p>	<p>The procedure for the use and storage of hazardous materials is outlined in the WSU Hazardous Materials Management Plan (SUP01-PLN-EN-0005), which is available on Asite: SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p>
24 (TfNSW)	<p>The Proponent shall prepare a construction traffic management plan (TMP) as part of the CEMP which addresses the items listed in the CoA. The Proponent shall consult with the relevant roads authority during preparation of the TMP, as required. The performance of all Project traffic arrangements must be monitored during construction.</p>	<p>A Traffic Management Plan (SUP01-PLN-MG-0003) has been prepared which is available on Asite: SUP01 – Wynyard Station Upgrade\20 Development\00 Project Management\00 Plans The TMP has been submitted to RMS and the City of Sydney with every Road Occupancy Licence (ROL) or Temporary Works (TW) application.</p>
25 (TfNSW)	<p>Prior to construction commencement, the Proponent shall prepare road condition surveys and reports on the condition of roads and footpaths affected by construction, to the satisfaction of the infrastructure owner(s). The Proponent shall carry out rectification work at the Proponent's expense to repair infrastructure to the asset condition prior to commencement of construction.</p>	<p>A Dilapidation Survey for Road Conditions has been undertaken and is available on Asite: SUP01 – Wynyard Station Upgrade\30 Execution\08 Engineering & Design\06 Reports & Investigation\06 Condition Assessment & Report</p> <ul style="list-style-type: none"> SUP01-REP-SV-0002
26 (TfNSW)	<p>All permanent lighting for the Project must be designed, installed and operated in accordance with the requirements of AS 1158 Road Lighting and AS 4282 Control of the Obtrusive Effects of Outdoor Lighting and other relevant standards.</p>	<p>N/A - there is no project requirement for permanent outdoor lighting.</p>

Condition No.	Requirement	Comments
<p>27 (TfNSW)</p>	<p>All cleared vegetation shall be replaced and/or offset in accordance with the following, unless otherwise agreed or directed by the PMEM:</p> <p>(a) Sydney Train’s Biodiversity Offset Calculator for non-significant impacts on vegetation within the rail corridor.</p> <p>(b) TfNSW’s Vegetation Offset Guide for non-significant impacts on vegetation outside of the rail corridor.</p> <p>All vegetation planted on-site is to consist of locally endemic native species, unless otherwise agreed by the PMEM, following consultation with the relevant Local Authority, where relevant, and/or the owner of the land upon which the vegetation is to be planted.</p>	<p>N/A - currently, there is no project requirement for vegetation clearing.</p>
<p>28 (TfNSW)</p>	<p>Separate approval is required in accordance with TfNSW’s Application for Removal or Trimming of Vegetation for the trimming, cutting, pruning or removal of trees or vegetation where the impact has not already been identified in the REF for the Project.</p>	<p>N/A - currently, there is no project requirement for tree or vegetation removal. Should this requirement arise, a separate approval will be sought.</p>
<p>29 (TfNSW)</p>	<p>Soil and water management measures shall be prepared as part of the CEMP for the mitigation of water quality and hydrology impacts during construction of the Project. The management measures shall be prepared in accordance with Managing Urban Stormwater; Soils and Construction 4th Edition (Landcom, 2004).</p>	<p>N/A - currently, there is no project requirement for soil excavation. Should this requirement arise, soil and water management measures will be implemented. Any erosion and sediment control requirements will be outlined in the WSU ECMs.</p>
<p>30 (TfNSW)</p>	<p>If previously unidentified indigenous or non-indigenous heritage/archaeological items are uncovered during construction works, all works in the vicinity of the find shall cease and appropriate advice shall be sought from a suitably qualified heritage consultant (and in consultation with the Heritage Division where appropriate). Works in the vicinity of the find shall not re-commence until clearance has been received from the heritage consultant and/or Heritage Division.</p> <p>Refer to Condition 42 for additional heritage requirements.</p>	<p>A Heritage Construction Management Plan (HCMP) has been prepared that includes a stop-work and notification procedure.</p> <p>The HCMP is available on Asite: SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\10 Heritage SUP01-PLN-EN-0011</p> <p>A heritage handrail which was previously unidentified was uncovered in July 2015. The handrail was inspected by the Heritage Consultant who prepared a methodology for its removal and salvage:</p> <ul style="list-style-type: none"> • SUP01-PLN-EN-0016 - Heritage Handrail Removal Methodology.
<p>31 (TfNSW)</p>	<p>The Proponent shall appoint a Sustainability Officer who is responsible for implementing sustainability objectives for the Project.</p> <p>Details of the Sustainability Officer, including defined responsibilities consistent with the Proponent’s sustainability objectives, included in the REF, are to be submitted to the satisfaction of the PMS prior to preparation of the Pre-Construction Sustainability Report (PCSR).</p>	<p>A Sustainability Officer has been appointed (Lucy Baker), who is supported by the Project Environmental Coordinator. Chris Berg was the Environmental Coordinator for this reporting period, but was replaced with Heather Tilley, in January 2016.</p>

Condition No.	Requirement	Comments
<p>32 (TfNSW)</p>	<p>Prior to commencement of construction, a PCSR shall be prepared to the satisfaction of the PMS. The Report shall include the following minimum components:</p> <ul style="list-style-type: none"> (a) A completed electronic checklist demonstrating compliance with the Sustainable Design Guidelines Version 3.0 to a Silver level standard. (b) A statement outlining the Proponent’s own corporate sustainability obligations, goals, targets, in house tools, etc. (c) A section specifying any areas of innovation that will be explored and/or implemented on the Project during the course of the construction period. <p>The Proponent shall submit a copy of the PCSR to the PMS for approval, at least 14 days prior to the commencement of construction (or within such time as otherwise agreed to by the PMS).</p>	<p>N/A - This requirement falls outside the reporting period. A Pre-Construction Sustainability Report (SUP01-CHL-EN-0001) has been submitted to the PMS prior of commencement of main construction.</p>
<p>33 (TfNSW)</p>	<p>Hoardings, site sheds, fencing, acoustic walls around the perimeter of the site, and any structures built as part of the Project are to be maintained free of graffiti and advertising not authorised by the Proponent during the construction period. Graffiti and unauthorised advertising will be removed or covered within the following timeframes:</p> <ul style="list-style-type: none"> (a) Offensive graffiti will be removed or concealed within 24 hours. (b) Highly visible (yet inoffensive) graffiti will be removed or concealed within a week. (c) Graffiti that is neither offensive or highly visible will be removed or concealed within a month. (d) any unauthorised advertising material will be removed or concealed within 24 hours 	<p>Graffiti and advertising has been addressed in Section 13.7 of the CEMP (SUP01-PLN-EN-0011). No graffiti incidents have been reporting during this reporting period.</p>
<p>34 (TfNSW)</p>	<p>Construction is permitted 24 hours a day, 7 days a week, subject to the restrictions detailed in Conditions 42 and 43.</p>	<p>Noted. This requirement is listed on relevant ECMs and included in site induction training.</p>

Condition No.	Requirement	Comments
<p>35 (TfNSW)</p>	<p>Where feasible and reasonable, the following measures shall be investigated and implemented:</p> <p>(a) Works that generate significant levels of noise shall be scheduled for times when they would have the least impact, e.g. undertaking noise or vibration intensive activities outside retail business hours, or during periods of low retail activities and low passenger numbers.</p> <p>(b) Consultation with receivers impacted by noise from the proposed works which are expected to exceed the construction NMLs, or where there is continued elevated noise levels (including structure borne noise), prior to the commencement of the particular activity. The highest consideration shall be given to those that are predicted to be most affected as a result of the works.</p> <p>(c) Consultation shall be used to determine and inform:</p> <ul style="list-style-type: none"> i. Periods of low retail activity and schedule work accordingly, thus minimising potential impact. ii. If periods of respite are appropriate. <p>(d) Comply with predicted noise levels.</p> <p>(e) Consideration of alternative works methods and lower noise machinery to minimise noise and vibration levels (e.g. saw cutting instead of impact hammering would reduce structure-borne noise).</p> <p>(f) Noisy construction works should be conducted behind hoardings. The hoardings should be full height and be constructed from =10 mm plywood or similar.</p> <p>(g) In the event that a Wynyard Park compound is required, noisy equipment would be orientated away from residential and hotel receivers and/or shielded behind structures where feasible and reasonable.</p> <p>Any activities undertaken outside of standard construction hours and have not been already assessed in the REF shall be subject to further assessment to the satisfaction of the PMEM.</p>	<p>A detailed Construction Noise & Vibration Assessment Report has been prepared that demonstrates how construction noise and vibration mitigation measures are implemented and complied with.</p> <p>The report is available on Asite.</p> <p>SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p> <ul style="list-style-type: none"> • SUP01-REP-EN-0002 <p>Where very noisy works are anticipated, echo barriers (and sometimes double layers of echo barriers) and smoke baffles have been installed to minimise potential impacts. In addition, noisy works are generally undertaken during the night shift to minimise potential impacts on commuters during the day.</p>

Condition No.	Requirement	Comments
36 (TfNSW)	<p>A noise monitoring program shall be identified in the CEMP, that shall be undertaken</p> <p>(a) Periodically during the construction program as the works progress.</p> <p>(b) For works that have the potential to result in exceedances of construction NMLs.</p> <p>(c) Measurements would also be undertaken in response to complaints.</p> <p>The results would be reviewed to determine if additional mitigation measures are required. All measurements would be undertaken in accordance with Australian Standard 1055.1-1997 – Acoustics – Description and measurement of environmental noise, Part 1: General procedures.</p>	<p>Noise Monitoring requirements are outlined in the Construction Noise & Vibrations Assessment Report which is available on Asite.</p> <p>SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\03 CEMP Documents</p> <ul style="list-style-type: none"> • SUP01-REP-EN-0002 <p>Monitoring is being undertaken when construction activities with potential high noise impact are being undertaken eg during Possessions. Evidence includes:</p> <ul style="list-style-type: none"> • SUP01-DS-EN-0002 - WSU WE08 Noise Monitoring Results • SUP01-DS-EN-0003 - WSU WE09 Noise Monitoring Results • SUP01-DS-EN-0004 - WSU Noise Monitoring Result 2015.09.25 • SUP01-DS-EN-0005 - WE16 WSU Noise Monitoring • SUP01-DS-EN-0006 - WE 19 - WSU Noise Monitoring • SUP01-DS-EN-0007 - WSU WE21 Noise Monitoring <p>Results of the noise monitoring has been included in Appendix B.</p>
37 (TfNSW)	<p>All works are to be undertaken in accordance with the s.60 approval (Approval Ref: 2014/S60/189) under the Heritage Act 1977.</p> <p>Where further documentation is to be submitted to the Heritage Division of OEH as a requirement of the s.60 approval, such documentation is to be submitted to PMEM for review and acceptance a minimum of 21 days prior to lodgement.</p>	<p>Noted.</p> <p>All applications under the Heritage Act 1977 will be prepared and submitted by the Proponent.</p> <p>Further information is contained in the HCMP.</p> <p>In addition a S65A was approved by the Heritage Council on 24 July 2015 for some minor modifications of the original S60 approval following detailed design on Concourse, B3 and York Street Levels.</p>
38 (TfNSW)	<p>An internal approval within TfNSW (PMEM) would be required to ensure that all alternative access arrangements have been explored prior to proceeding with the Wynyard Park compound option.</p>	<p>Noted.</p> <p>The Wynyard Park compound option did not proceed. Alternative options for access for deliveries include Carrington Road, Wynyard Lane and George Street Ramp.</p>
39 (OEH)	<p>Development must be in accordance with:</p> <p>Annexure A: Architectural drawings prepared by Cox Richardson.</p> <p>Annexure B: Report entitled Wynyard Station Upgrade – Statement of Heritage Impact by Futurepast. November 2014.</p>	<p>Noted.</p> <p>Tool box meetings are held prior to the start of the day's work, and where items of heritage as outlined in the architectural drawings and the Futurepast report are being developed, these drawings are communicate to the engineers and contractors.</p>
40 (OEH)	<p>A heritage consultant shall be nominated for the project. The name of the consultant is to be submitted to the Manager, Conservation at the Heritage Division and approved prior to the commencement of works.</p>	<p>A heritage consultant (James Phillips of Weir Phillips Heritage) has been appointed and the Manager, Conservation at the Heritage Division, notified of that appointment on 27 February 2015.</p>

Condition No.	Requirement	Comments
41 (OEH)	The nominated heritage consultant is to provide advice on the detailed design, oversee heritage inductions and inspect the demolition and removal of material to ensure that no significant fabric or elements are damaged or removed.	Noted. Three of seven heritage mirrors were removed from Area 7 when cables trays were being installed. These were removed without consulting the heritage specialist. Following removal, the mirrors were stored in the heritage storeroom. The heritage consultant inspected the mirrors in January 2016 and determined that as no purpose has been identified for these mirrors, safe storage within the heritage storeroom was considered to be a satisfactory heritage outcome (email dated 21 January 2016).
42 (OEH)	All work shall be carried out by suitably qualified tradespeople with practical experience in conservation and restoration of similar heritage items. The nominated heritage consultant shall be consulted prior to the selection of appropriate tradespeople.	Noted. In August 2015, a heritage balustrade required removal from Concourse Level (Grid Reference J-33). A handrail removal methodology (SUP01-PLN-EN-0016) was prepared by the heritage consultant and provided to the contractor undertaking the works. The heritage consultant was also onsite during the removal. During the previous reporting period, the heritage consultant also prepared a salvage methodology for heritage tiles (SUP01-PLN-MG-0059). The methodology was also communicated to the contractor and the heritage consultant was onsite during the removal.
43 (OEH)	Significant building fabric and elements are to be protected during the works from potential damage. Protection systems must ensure historic fabric is not damaged or removed.	Noted. A Heritage Construction Management Plan (HCMP) has been prepared outlining protection systems. The HCMP is available on Asite: SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\10 Heritage <ul style="list-style-type: none"> • SUP01-PLN-EN-0011 All areas and items of heritage significance have signs placed on or near them to alert construction workers to the presence of heritage elements. Where items are to remain in situ are to be protected by a sturdy framed structure that does not touch the original fabric. This include door frames in B1 and column capitals on the concourse.

Condition No.	Requirement	Comments
44 (OEH)	Retain and protect the following significant fabric : (a) The original cladded columns at the entry to the York Street foyer. (b) Pre WWII elements and wall and floor finishes in the western corridor. (c) All original floor and wall finishes and the handrails between Level B2 and the York Street foyer. (d) Retain and protect all original heritage fabric shown in the drawings SUP01COXSK-HR-101301 to SUP01COX- SK- HR- 101701, and which are outside the scope in Page 93-101 of the Heritage Impact Statement.	Noted. Protection measures are outlined in HCMP (SUP01-PLN-EN-0011) eg heritage doors on Basement Level B1 were removed and put into storage and heritage tiles have been salvaged. All heritage fabric that is to be protected is outlined in: <ul style="list-style-type: none"> Heritage ECMs (SUP01-PLN-EN-0010).
45 (OEH)	Any application to vary to Condition 6 must be supported in writing by the Heritage Specialist at Environment Division, SEQR, Sydney Trains and copies be provided to the Manager, Conservation at the Heritage Division.	Noted.
46 (OEH)	The installation of new services shall be carried out in such a manner as to minimise damage to or removal of historic fabric and shall not obscure historic features.	Noted. <ul style="list-style-type: none"> Protection measures are outlined in HCMP (SUP01-PLN-EN-0011). All heritage fabric that is to be protected is outlined in the Heritage ECMs (SUP01-PLN-EN-0010).
47 (OEH)	An archival photographic recording of the affected internal and external elements is to be undertaken prior to the commencement of works, in accordance with the Heritage Division document entitled, Photographic Recording of Heritage Items using Film or Digital Capture. The original copy of the archival record shall be submitted to the Heritage Division.	A hardcopy of the WSU Archival Recording has been supplied to TfNSW, Sydney Trains and the Heritage Division on 23/04/15. An electronic copy is available on Asite: SUP01 – Wynyard Station Upgrade\30 Execution\12 Environment & Sustainability\10 Heritage <ul style="list-style-type: none"> SUP01-REP-EN-0157 Following additional heritage finds within the project site additional archival photography was undertaken and submitted as Volume 2 on 20/07/15. Volume 3 is currently under preparation and will be submitted at completion of project.
48 (OEH)	This approval shall be void if the activity to which it refers is not physically commenced within five years after the date of the approval or within the period of consent specified in any relevant development consent granted under the Environmental Planning and Assessment Act 1979 (NSW), whichever occurs first.	N/A - the activity has already commenced.

APPENDIX B

Noise Monitoring Results

Activity	Site	Date	Time	Ref #	Leq	LA10	LA90	LAmx	LAmn	Activity	Comment
WE16	1	Saturday, 17 October 2015	9:07	016	81.1	84.3	71.3	89.6	65.0	Tile Demolition Platforms 5&6	Northern paid concourse, near stair 6. Construction noise clearly audible. Demo crew using jackhammers. Discussion with Construction Manager was held to install additional noise barriers.
WE16	2	Saturday, 17 October 2015	9:24	017	71.1	74.0	65.0	86.3	59.9	Tile Demolition Platforms 5&6	Middle of paid concourse, near stair 8. Construction noise audible in background.
WE16	3	Saturday, 17 October 2015	9:40	018	72.6	75.5	64.6	95.5	59.3	Tile Demolition Platforms 5&6	Southern paid concourse, near stair 11. Multiple rockbreakers in use.
WE16	1	Saturday, 17 October 2015	10:09	019	75.1	78.5	66.5	87.0	60.8	Tile Demolition Platforms 5&6	Northern paid concourse, near stair 6. 6 additional Echo Barriers were added and noise reduced by approx 5 dBA LAF.
WE16	1	Saturday, 17 October 2015	12:11	020	70.3	73.9	62.5	86.8	59.5	Tile Demolition Platforms 5&6	Northern paid concourse, near stair 6. Tile breaking at northern end of Platforms.
WE16	3	Saturday, 17 October 2015	12:29	021	69.0	71.7	62.7	87.7	59.8	Tile Demolition Platforms 5&6	Southern paid concourse, near stair 11. Breaker and hammerdrill audible in background.
WE19	1	Saturday, 17 October 2015	8:31	22	78.5	83.4	67.9	87.7	63.1	Tile Demolition Platform 3	Rockbreaker clearly audible. Investigation if additional noise barriers can be installed.
WE19	2	Saturday, 17 October 2015	8:47	23	79.5	82.4	69	102.5	62	Tile Demolition Platform 3	Rockbreaker clearly audible. Demolition taking place directly above paid concourse.
WE19	3	Saturday, 17 October 2015	9:04	24	79.5	83.4	68.8	89.5	61.9	Tile Demolition Platform 3	Rockbreaker clearly audible.
WE19	1	Saturday, 17 October 2015	12:22	25	72.3	75	67.8	88.3	63.7	Tile Demolition Platform 3	Demolition noise audible in background. Brokk and excavators operating.
WE19	2	Saturday, 17 October 2015	12:39	26	73.2	76.8	66.5	88.1	62.1	Tile Demolition Platform 3	Demolition noise audible in background. Brokk and excavators operating.
WE19	3	Saturday, 17 October 2015	12:55	27	71.4	74.7	64.1	85.1	60.6	Tile Demolition Platform 3	Demolition noise audible in background. Audible sound dominated by customers.

Activity	Site	Date	Time	Ref #	Leq	LA10	LA90	LAmx	LAmn	Activity	Comment
WE19	4	Saturday, 17 October 2015	13:13	28	84.6	89.5	68.4	96.7	65.2	Tile Demolition Platform 3	Demo around steel beam below refuge ~ 90 dBA LAF. Discussions were held to modify methodology to reduce noise.
WE19	4	Saturday, 17 October 2015	13:52	29	85.5	89.6	68.3	93.9	64.6	Tile Demolition Platform 3	Demo around steel beam below refuge. Noise barriers were added to sides of EWP.
WE21	1	Saturday, 21 November 2015	8:12	30	78.7	82.1	71.2	88.6	65.7	Tile Demolition Platform 5/6	Rockbreak clearly audible. Investigation if additional noise barriers can be set up.
WE21	2	Saturday, 21 November 2015	8:29	31	73.7	76.7	67.2	93.9	62.6	Tile Demolition Platform 5/6	Demolition noise audible in background. Audible sound dominated by customers.
WE21	3	Saturday, 21 November 2015	8:46	32	70.4	73.4	64.6	91	60.5	Tile Demolition Platform 5/6	Demolition noise audible.
WE21	1	Saturday, 21 November 2015	9:07	33	73.5	75.9	68.4	85.7	65.1	Tile Demolition Platform 5/6	Additional noise barriers installed at Stair 6 resulting in noise reduction of 5.2 dBA LAF15.
WE21	1	Saturday, 21 November 2015	9:24	34	72.7	75	67.9	85.7	65.3	Tile Demolition Platform 5/6	Noise barriers installed at Stair 6 now fully enclosed, resulting in noise reduction of a further 0.8 dBA LAF15, or 6 dBA overall compared to first monitoring result.
WE21	1	Saturday, 21 November 2015	12:46	35	69.6	72.4	65	84.3	63.2	Tile Demolition Platform 5/6	Demolition noise audible in background. Audible sound dominated by customers.
WE21	2	Saturday, 21 November 2015	13:03	36	69.8	72.9	64	82.8	61.5	Tile Demolition Platform 5/6	Demolition noise audible in background. Audible sound dominated by customers.
WE21	3	Saturday, 21 November 2015	13:19	37	68.5	71.7	61.1	85.1	58.1	Tile Demolition Platform 5/6	Demolition noise audible in background. Audible sound dominated by customers.