

Construction Out of Hours Work Protocol - Addendum

Moorebank Intermodal Precinct – West
Precinct South

6 JUNE 2025

MOOREBANK INTERMODAL PRECINCT- PRECINCT WEST- SOUTH

EPBC 2011/6086 Approval

Out of Hours Work Protocol – Addendum

Author

Checker

Approver

Report No J002006250606.02

Date 06/06/2025

Revision Rev 02

Limitations on use and reliance

Aspect Environmental Pty Ltd has prepared this report solely for the use of the Client and those parties with whom a warranty / end-user agreement or licence has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Aspect Environmental Pty Ltd; a charge may be levied against such approval.

Aspect Environmental Pty Ltd accepts no responsibility or liability for:

- a) the consequences of this document being used for any purpose or project other than for which it was commissioned, and*
- b) the use of, or reliance on, this document by any third party with whom an agreement has not been formally executed.*

The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources (including the Client).



Should additional information become available which may affect the opinions expressed in this report, Aspect Environmental Pty Ltd reserves the right to review such information and, if warranted, to modify the opinions accordingly.

© Copyright 2025 ESR Australia & NZ. The concepts and information contained in this document are the property of ESR Australia & NZ. Use or copying of this document in whole or in part without the written permission of ESR constitutes an infringement of copyright. Limitation: This report has been prepared on behalf of, and for the exclusive use of ESR's Client, and is subject to, and issued in accordance with, the provisions of the contract between ESR and the Client. ESR accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.



Original Author Details

Author Details	Qualifications and Experience
	<p>B EnvSc, Auditor (Exemplar Global Auditor certification #C-447639)</p> <p> has 30 years of experience in the mining, transport, logistics, aerospace, construction and Defence sectors. As project manager,  has a broad range of experience across the entire project/development lifecycle including environmental impact assessment, risk assessment, drafting and implementation of environmental management plans and systems for small to large developments and operations.</p>

Current Revision Author Details

Author Details	Qualifications and Experience
	<p>LLB (Hons 1)</p> <p>8 years of experience in environmental impact assessments, management plans and compliance reporting.</p>
	<p>BEnvSc (Hons1), Grad Cert EnvPI</p> <p>18 years of experience in environmental planning, assessment and management.</p>

REVISIONS

Revision	Date	Description	Prepared by	Approved by
0D	26/02/2024	Draft for client review		
01	29/02/2024	Final		
02	06/06/2025	Update following CC approval of Warehouse S4		

ACRONYMS AND DEFINITIONS

Acronym / Term	Meaning
Addendum	Construction Environmental Management Plan – Addendum
CDC	Complying Development Certificate issued by the Certifier under the TISEPP
CEMP	Construction Environmental Management Plan
CNVIS	Construction Noise and Vibration Impact Statement
CNVMP	Construction Noise and Vibration Management Plan
CoA	Conditions of Approval as detailed in the EPBC Act Approval EPBC 2011/6086
dB(A)	A-weighted decibel. The A- weighting noise filter simulates the response of the human ear at relatively low levels, where the ear is not as effective in hearing low frequency sounds as it is in hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the “A” filter. A sound level measured with this filter is denoted as dB(A). Practically all noise is measured using the A filter.
DM	Development Manager
EM	Environmental Manager
Environmental Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance. Environmental incidents include pollution incidents and environmental emergencies. Environmental incidents may arise from natural (e.g. storm, wind or bushfire) or human factors.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ICNG	Interim Construction Noise Guideline
Material harm	Harm that involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).
MIP	Moorebank Intermodal Precinct
NML	Noise Management Level
MPW	Moorebank Precinct West
MPW Concept Approval	MPW Concept Approval (SSD 5066), granted by DPIE on 29 September 2014
MPW Concept EPBC Act Approval	Commonwealth Approval (No. 2011/6086) granted in September 2016 under the Environment Protection and Biodiversity Conservation Act 1999.
MPW Stage 2/3	Moorebank Precinct West Stage 2 and Stage 3
Non-compliance	An occurrence, set of circumstances, or development that results in a non-compliance or is non-compliant with CDC and or EPBC Act Approval (EPBC 2011/6086) Conditions of Approval but is not an incident.
Non-conformance	Observations or actions that are not in strict accordance with the CEMP and the aspect specific sub-plan but achieve a comparable environmental outcome.
OOHW	Out of Hours Works

TABLE OF CONTENTS

1. Introduction.....	6
1.1. Project Approvals	8
1.2. Purpose and Application	8
1.3. Objectives and Targets	9
1.4. Consultation	9
2. Environmental Management.....	10
2.1. Legislative Requirements.....	10
2.1.1. Compliance Matrix.....	10
2.2. Interim Construction Noise Guideline	10
2.3. Roles and Environmental Responsibilities.....	10
3. Implementation	11
3.1. Construction Hours	11
3.2. Exclusions to this Addendum.....	11
3.3. Permitted OOHW	11
3.4. Mitigation and Management Measures.....	14
4. Monitoring and Review	15
4.1. Environmental Monitoring	15
4.2. Incidents.....	15
4.3. Non-Compliance and Non-Conformance.....	15
4.4. Complaints	15
5. References	16

LIST OF TABLES

Table 3-1 OOHW Process	12
Table 3-2 Noise Mitigation Measures.....	14
Table 4-1 Monitoring activities	15

LIST OF FIGURES

Figure 1-1 MPW South Site location	7
--	---

1. Introduction

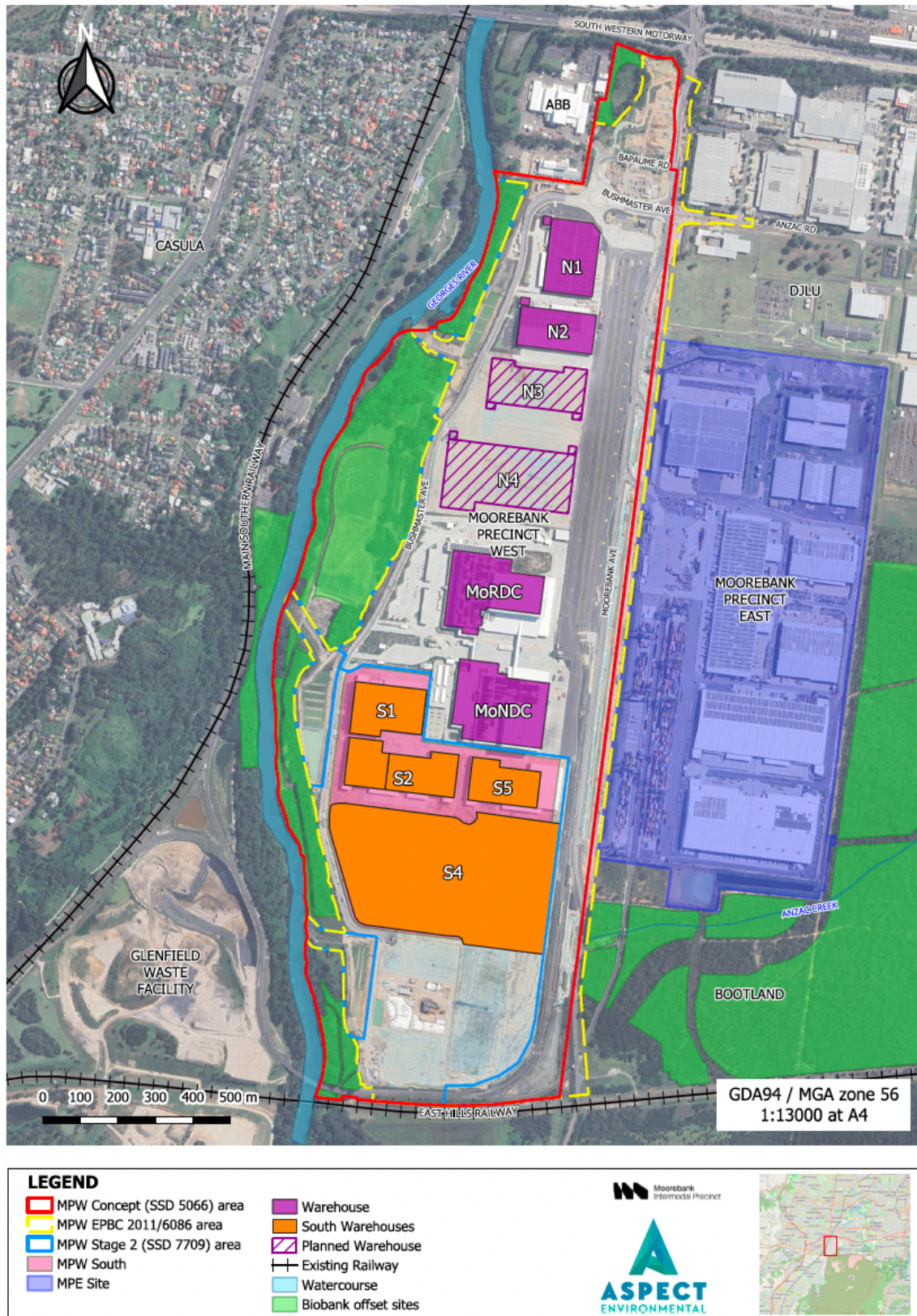
This Out of Hours Works (OOHW) Protocol – Addendum has been developed for the Moorebank Precinct West (MPW) South warehouse site (Project site) to assist conformance and compliance with relevant environmental legislation and guidelines to manage potential environmental impacts associated with noise outside of standard construction hours.

It has been prepared in accordance with EPBC 2011/6086 Condition of Approval (CoA) 6, State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP), and the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009).

The location of the Project site is shown in Figure 1-1.

The Project involves the construction and operation of four warehouses ('S1', 'S2', 'S4' and 'S5') on the Project site, as well as ancillary works including landscaping, services, utilities and infrastructure.

Figure 1-1 MPW South Site location



1.1. Project Approvals

The MPW Project was approved under both the *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act) and *Environmental Planning and Assessment Act 1979* (EP&A) Act. The approvals and consents granted include conditions relevant to construction.

The EPBC 2011/6086 Approval was granted on 27 September 2016 and includes environmental conditions relevant to the management of noise and vibration impacts during out of hours construction relevant to this Addendum. This Addendum has been prepared under CoA 21.

The State Significant Development (SSD) 5066 Development Consent was granted on 3 June 2016.

Complying Development Certificate (CDC) 230736/01 for the Project was issued under the TISEPP on 27 February 2024. A subsequent CDC (250077/01), for the construction and operation of Warehouse S4, was issued on 29 May 2025. The CDC included conditions relevant to the construction of the Project and to this Addendum.

The compliance of this Addendum with the relevant conditions of the approvals and consents is detailed in Section 2.1.1.

1.2. Purpose and Application

This Addendum has been developed to address the relevant requirements of the approvals and consents. It identifies how out of hours noise impacts will be managed during the construction phase of the Project.

It provides methods to assess, monitor, manage and mitigate impacts from out of hours work on sensitive receivers by contractors during the construction of the Project, including all sub-contractors and consultant partners.

This Addendum was developed in reference to the following documents, details are provided in Section 5.

- MPW Concept Plan noise impact assessment
- MPW Concept Plan modification noise impact assessment
- MPW South (S1/S2/S3/S5/S6) noise and vibration impact assessment (NVIA)
- MPW South S4 NVIA
- MPW Stage 2/3 CEMP
- MPW Stage 2/3 CNVMP
- MPW South CEMP – Addendum
- MPW South CNVMP – Addendum.

The most recent version of this Addendum will be implemented to manage the potential impacts of the Project on sensitive receivers during construction.

1.3. Objectives and Targets

The objectives and targets for this Addendum are the same as those detailed in Table 5 of the MPW Stage 2/3 CNVMP.

1.4. Consultation

The MPW Stage 2/3 CNVMP Out of Hours Work Addendum was prepared in consultation with stakeholders (Community Consultative Committee) as detailed in Appendix A of the MPW Stage 2/3 CNVMP.

No stakeholder consultation was required for the preparation of this Addendum.

2. Environmental Management

2.1. Legislative Requirements

The regulatory framework for the Project is outlined within the Compliance and Obligations Register (refer to Appendix A4 REMM 5C, 5D and 5S of the *MPW South CEMP – Addendum*). This register identifies relevant legislative instruments, their key objectives and relevance to the Project, including legislative and voluntary obligations, permits and licences, standards and guidelines, and relevant CoA and management measures.

2.1.1. Compliance Matrix

The Project is being delivered under approvals granted under the EPBC Act and EP&A Act. These approvals and consents include requirements to be addressed in this Addendum and to be met during the construction of the Project. The conditions specific to the development of this Addendum are detailed in Table 2-1 of the MPW South CNVMP – Addendum.

2.2. Interim Construction Noise Guideline

The aim of the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009) (ICNG) is to provide guidance on managing construction works to minimise noise, with an emphasis on communication and cooperation with all involved in, or affected by, construction noise.

The ICNG identifies categories of work that typically may require works to be undertaken outside of the standard construction hours, consistent with REMM 5D:

1. **The delivery of oversized plant or structures** that police or other authorities determine require special arrangements to transport along public roads
2. **Emergency work** to avoid imminent injury or the loss of life or damage to property, or to prevent environmental harm
3. **Maintenance and repair of public infrastructure** where disruption to essential services and/or considerations of worker safety do not allow work within standard construction hours
4. **Public infrastructure works** that shorten the length of the project and are supported by the affected community
5. Works where a proponent demonstrates and justifies **a need to operate outside the recommended standard construction hours**.

The five identified categories are the basis for exclusions and permissibility pathways identified in section 3.

2.3. Roles and Environmental Responsibilities

Key roles and responsibilities associated with the implementation of this Addendum are detailed in Table 12 of the MPW Stage 2/3 CNVMP.

3. Implementation

3.1. Construction Hours

Construction hours are divided into two scenarios:

- Standard construction hours
- Out of Hours Works (OOHW).

The standard construction hours for the Project are consistent with TISEPP Schedule 13 Part 2 Complying development certificate conditions, section 14, which are as follows:

- 7:00am to 5:00pm, Monday to Saturday

3.2. Exclusions to this Addendum

The following may be undertaken without further assessment:

1. **Inaudible**, works that are assessed and considered inaudible at the nearest sensitive receiver (see Low impact works Step 4 Table 3-1).
2. **The delivery of oversized plant or structures** that police or other authorities determine require special arrangements to transport along public roads.
3. **Emergency work** to avoid imminent injury or the loss of life or damage to property, or to prevent environmental harm.

The Principal's Development Manager (DM) must be notified prior to undertaking works that are considered excluded from implementing the addendum.

3.3. Permitted OOHW

There are several reasons why OOHWs may be required, including but not limited to construction processes that exceed the daily allotted construction hours for example concrete pour curing/cutting or when public and project personnel safety is a consideration.

Where possible, OOHW will be avoided and works scheduled to occur during the standard construction hours. Where OOHW are needed for the safe and efficient implementation of the Project, or due to exceptional circumstances, the level of impacts of OOHW will be considered with reference to this Addendum.

The Contractor's Environmental Manager (EM) must submit an OOHW request to the Principal's Development Manager at least two weeks prior to any OOHW works being undertaken (except in emergency circumstances) for endorsement.

The OOHW may require an assessment of potential noise and/or vibration impacts against the applicable Noise Management Level (NML) and time of day. This will include identification of feasible and reasonable mitigation and management measures that would be implemented as part of the construction works to manage potential noise, and vibration impacts on nearby sensitive receivers.

A Construction Noise and Vibration Impact Statement (CNVIS) will be utilised to identify risk of the proposed OOHW activity.

The CNVIS will identify the relevant approvals path and whether the CNVIS is required to be reviewed by the Contractor's EM and/or approved by the Principal's EM, or the Principal's DM or referred to the Head of Moorebank.

Table 3-1 OOHW Process

No.	Step	Procedure detail
1	Work Identification	<ul style="list-style-type: none"> Identify activities requiring OOHW includes dates and times. Identify why the proposed work needs to be completed out of hours and why it cannot be rescheduled for standard construction hours. If essential to the Project, or there are exceptional circumstances, prepare and document the justification for the works.
2	Assess Alternative	<p>Assess alternate options to enable activities to be undertaken within standard construction hours.</p> <p>If alternate options are not considered practical, consult the Contractor's EM and document, using an Out of Hours form (developed by the Construction Contractor) to provide a description of the works, the expected duration, a list of all noise generating plant, equipment and machinery in use, activities to be undertaken, and all potential mitigation and management measures considered.</p>
3	Undertake CNVIS	<p>Assess the activity for noise and vibration impacts on the surrounding receptors utilising a CNVIS, considering all proposed noise and vibration mitigation measures. The CNVIS will:</p> <ul style="list-style-type: none"> Identify the closest and/or potentially most affected receivers Consider cumulative impact from other out of hours works Predict noise and vibration levels based on the Noise and Vibration Impact Assessment scenarios, via modelling (or spreadsheet calculation (TfNSW Construction Noise Estimation Tool)) Compare the predicted values to the noise and vibration management levels – Table 8, CNVMP Addendum List of mitigation and management measures that will be required to be implemented. <p>Predictions to account for particularly annoying (tonal, low frequency content or impulsive) work activities by applying a 5 dB(A) penalty to the values for particularly annoying activities.</p> <p>Predictions can account for all mitigation and management measures (Table 3-2) by applying deductions for noise reducing measures implemented.</p> <p>For night period works, predictions will include an assessment of potential sleep disturbance impacts, if anticipated.</p> <p>Activities considered inaudible at receptors, including (but not limited to), security operations, monitoring, survey, refueling, low noise plant maintenance, general site maintenance will not require a CNVIS.</p>
4	Low Impact Works	<p>If the assessment identifies that works outside standard hours will not generate LAeq, 15-minute noise levels more than rating background level at sensitive receivers, the activity will be considered inaudible. Where works are inaudible at the nearest sensitive receivers and vibration levels will not exceed those stipulated by MPW South CNVMP – Addendum and Table 2.4 of Assessing Vibration: A Technical Guide (DECC 2006), the works will be considered to have low impact. The Principal's EM will be provided with the</p>

		CNVIS for information.
5	Medium Impact Works	<p>If the CNVIS identifies that works outside of standard hours will generate LAeq, 15-minute noise levels not more than 5 dB above the rating background level at sensitive receivers and will comply with the NML and Vibration Management Level (VML), the activity will be considered medium impact and referred to the Principal's EM for review and approval.</p> <p>The Construction Contractor will provide documentation demonstrating outcomes for steps 1 - 3.</p> <p>Where the activities' potential impacts and the proposed management measures are considered acceptable by the Principal's EM, works may proceed.</p> <p>Where the activity, potential impacts and the proposed management measures are not considered acceptable by the Principal's EM. The Principal's EM will refer the activity to the Principal's DM, works may proceed when approval from the Principal's DM is received.</p>
6	High Impact Works Negotiated agreements achieved with the community	<p>If the CNVIS identifies that works will exceed NML and/or VML, the activity will be considered high impact. If negotiated agreements have been reached with affected receivers, refer to the Principal's EM for review.</p> <p>The Construction Contractor will provide documentation demonstrating outcomes for steps 1 - 3 and a copy of the negotiated agreement with impacted receivers.</p> <p>Where the nature of the activity, the likely impacts and the proposed management measures are considered acceptable by the Principal's EM, the Principals EM will refer the application to the Principal's Development Manager for approval. Works may proceed when the Principal's DM approval is received.</p>
7	High Impact Works Negotiated agreements not achieved with the community	<p>If the CNVIS identifies that works will exceed NML and/or VML, the activity will be considered high impact. If negotiated agreement has not been achieved, the works will be referred by the Construction Contractor via the Principal's EM to the Principal's DM. The Principal's DM will refer the activity to the Head of Moorebank.</p> <p>The Construction Contractor will provide documentation demonstrating outcomes for steps 1 - 3 and detail reasons why a negotiated agreement could not be achieved with impacted receivers.</p> <p>When referring the application to the Head of Moorebank the Principal's DM will provide a summary of the issues and provide a recommendation to be considered by the Head of Moorebank.</p> <p>Up to 1 week (5 business days) will be allowed for Head of Moorebank to review and respond to the request for OOHW.</p>
8	OOHW Approval	OOHW will not commence until approval is granted in accordance with items 4, 5, 6 or 7 (whichever is applicable).
9	Community Notification	<p>Community notification will be undertaken in accordance with the Community Communication Strategy.</p> <p>Low impact activities will not require notification to be distributed to receptors potentially affected by the works.</p> <p>Where appropriate, and to be determined on a case-by-case basis, the use of alternative communication methods (i.e. Variable Message Signage) may be employed.</p> <p>Medium and high impact will require notification to be distributed to receptors potentially affected by the works. A notification boundary will be established on a case-by-case basis in consultation with the Principal's Representative.</p>

Notification will be made to the agreed area at least 5 days prior to commencement of works for medium impact and high impact (negotiated agreement), or 10 days for high impact (no negotiated agreement).
The Project website will be updated with relevant information to further notify the community and stakeholders.

3.4. Mitigation and Management Measures

Management measures prescribed by MPW South CNVMP Addendum aim to avoid and minimise impacts on sensitive receivers. These measures are consistent with those identified within the MPW Stage 2/3 CNVMP where relevant and applicable to the construction of the Project.

The mitigation and management measures are consistent with the intent and recommendations of the ICNG for best-practice techniques to be developed for managing construction noise and vibration and implementing feasible and reasonable mitigation measures.

Table 3-2 Noise Mitigation Measures

Management Measure	Anticipated Noise Reduction, dB(A)
Turning off machinery when not in use	0-5
Portable temporary screens	5-10
Screen or enclosure for stationary equipment	10-15
Maximising the offset distance between noisy plant items and sensitive receivers	3-6
Avoiding using noisy plant simultaneously and / or close together, adjacent to sensitive receivers	2-3
Orienting equipment away from sensitive receivers	3-5
Carrying out loading and unloading away from sensitive receivers	3-5
Using dampened tips on rock breakers	3-6
Using noise source controls, such as residential class mufflers to reduce noise from all plant and equipment including bulldozers, cranes, graders, excavators and trucks	5-10
Using spotters, closed circuit television monitors, “smart” reversing alarms, or “quacker” broadband type reversing alarms in place of traditional tonal reversing alarms	2-5
Consider non-noise-generating structures such as site offices, storage sheds, stockpiles and tanks as noise barriers	5-10

4. Monitoring and Review

4.1. Environmental Monitoring

Monitoring, including site inspections, will be undertaken in accordance with Sections 4.1 and 4.2 of the MPW South CEMP – Addendum. Noise and vibration monitoring procedures will be in accordance with Section 5, MPW Stage 2/3 CNVMP.

Monitoring required to determine the effectiveness of management measures required by this Addendum is outlined in Table 4-1.

Table 4-1 Monitoring activities

Monitoring activity	Frequency	Responsibility	Requirement
Attended Noise Monitoring	Verify predicted OOHW noise levels	Contractors EM	Best practice

4.2. Incidents

In the event of a safety or environmental incident, or unpredicted impacts relating to the management of noise and vibration, it is the responsibility of all personnel to report to the Site Supervisor.

All environmental incidents will be managed and reported in accordance with Section 2.8 of the MPW South CEMP – Addendum.

4.3. Non-Compliance and Non-Conformance

It is the responsibility of all site personnel to report non-compliances and non-conformances to the Site Supervisor and/or the Contractor's EM. Non-compliances and non-conformances will be managed in accordance with Section 4.4 of the MPW South CEMP – Addendum.

4.4. Complaints

Complaints handling will be undertaken in accordance with Section 2.6 of the MPW South CEMP – Addendum.

5. References

1. Wilkinson Murray, 2013, *SIMTA Noise Assessment – Concept Plan* (MPE Concept Plan), Report No. 12186-C, Version C, 2 August 2013
2. SLR, 2015, Moorebank Intermodal Terminal, *Revised Project Report - Noise and Vibration Impact Assessment* (MPW Concept Plan), Report No. 620.10816 R2, 27 April 2015, Revision 0
3. Wilkinson Murray, 2016, *MPW Concept Plan Modification Noise and Vibration Impact Assessment*, Report No. 15324-MO, Version B, 8 June 2016
4. Renzo Tonin & Associates, 2021, *Moorebank Precinct West Stage 2 / Stage 3 - Construction Noise and Vibration Management Plan*, TJ741-06F02 MPWS2 MPWS3 CNVMP (r16), dated 14 December 2021.
5. Aspect Environmental, MPW Stage 2 and Stage 3 CEMP, Revision R, dated 21/12/2022
6. Aspect Environmental, MPW South CEMP – Addendum, Revision 2, dated 28/02/2024
7. Aspect Environmental, MPW Stage 2 and Stage 3 CNVMP, Revision 16, dated 17/12/2021
8. Aspect Environmental, MPW South CNVMP – Addendum, Revision 2, dated 28/02/2024
9. Renzo Tonin & Associates, 2021, *Moorebank Precinct West – Noise and vibration impact assessment – MPW South (S1/S2/S3/S5/S6)*, TM306-18F04 MPW S1 S2 S5 (S3 S6) CDC NVIA (r3), dated 14 November 2023.
10. Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009)
11. Renzo Tonin & Associates, *Moorebank Precinct West – Noise and vibration impact assessment – MPW South (S4)*, TM306-27F04 MPW S4 CDC NVIA (r4), dated 10 April 2025.