

Sydney Port Botany Terminal 3 Project

Out of Hours Works Protocol

Terms and Definitions

The following terms, abbreviations and definitions are used in this plan:

Terms	Explanation
SPBT3	Sydney Port Botany Terminal 3
CEMP	Construction Environmental Management Plan
EM	Environmental Manager
EPA	Environmental Protection Agency
ERAP	Environmental Risk Action Plan
OEH	Department of Climate Change and Water
PAH	Polycyclic aromatic hydrocarbons
OOHWP	Out of Hours Works Protocol
EIS	Environmental Impact Statement
MCoA	Ministers Conditions of Approval

Distribution

The master 'controlled' OOHWP document forms part of the project's CEMP as an Appendix. The controlled copy will be retained in TeamBinder, the Laing O'Rourke document management system, where it can be accessed by personnel as necessary.

All paper copies of this OOHWP will be considered as 'uncontrolled' unless they have been allocated a 'copy number' in a colour other than black.

The client representative will be provided with a copy in conjunction with the submission of the CEMP.

Issue, Revision and Re-issue

The initial issue of this OOHWP has been reviewed by Laing O'Rourke's Regional Environmental Manager to ensure it meets the requirements of the current EMS and policy, contract, specifications and standards. The plan is approved for use on the project by the Project Director. Evidence of initial review and approval is by signatures on the cover sheet.

In conjunction with the submission of the OOHWP, Laing O'Rourke will coordinate and facilitate an initial OOHWP Workshop with representatives from the client and Laing O'Rourke to discuss the contents and application of the OOHWP to facilitate the approval of the OOHWP and agree the proposed management measures and controls.

Revisions of this OOHWP may be required throughout the duration of the project to reflect changing circumstances or identified opportunities for improvement.

Revisions may result from:

- Management Review
- Changes to the Company's standard system
- Audit (either internal or by external parties)

- Client complaints or non-conformance reports.

Revisions shall be reviewed and approved by the Project Manager prior to issue. Updates to this OOHWP are numbered consecutively and transmitted to holders of controlled copies.

Contents

Terms and Definitions	1
Distribution.....	1
Issue, Revision and Re-issue	1
1. Introduction	4
1.1 Objective	4
1.2 Targets.....	4
1.3 Commitment	5
1.4 Statutory provisions and guidelines.....	5
1.5 Ministers Conditions of Approval.....	5
2. References	5
3. Strategic Approach	6
3.1 Existing Environment.....	6
3.2 Potential Impacts	6
3.3 Approvals	6
3.4 Construction Noise limits	7
3.5 Out of Hours Works Monitoring.....	8
4. Mitigation Measures.....	8
5. Out of Hours Noise Exceedance Response	10
6. Training	11

1. Introduction

This Out of Hours Works Protocol (OOHWP) has been developed to address the construction activities associated with the Sydney Port Botany Terminal 3 (SPBT3) Project. In particular, the plan has been developed to address the requirement for a Night-Time Works Noise Management Protocol as outlined in the conditions of approval.

Development of Sydney Port Botany Terminal 3 will involve the construction of onshore civil infrastructure including container stacking areas. The proposed Terminals have four berths with a total length of 1,180 m. The approximate Terminal area, excluding the Wharf area is 46 ha.

The key components of the Sydney Port Botany Terminal 3 include:

- Ground treatment and consolidation measures
- Drainage, utilities, services
- Container yard
- HV & LV electrical
- Buildings
- Rail yard.

1.1 Objective

The objective of this OOHWP is to ensure that out of hours works are managed effectively during construction to avoid any incident or valid community complaints regarding out of hours works.

Appropriately trained personnel and experience gained from previous projects will be used to achieve high environmental performance on the SPBT3 Project.

It is recognised that during construction some specific areas will require alterations to the planned control measures due to changing circumstances. In these situations, the planned control measures will be reviewed, risk assessed and, where appropriate and practical, amended as necessary prior to commencing new or modified activities.

This OOHWP aims to satisfy the following objectives:

- Address the requirements of the planning approval for the SPBT3 Project
- Address the requirements of the Environmental Impact Statement (EIS) for the Port Botany expansion
- Address the requirements outlined in the Aurecon Framework Construction Environmental Management Plan
- Address the requirements of the relevant environmental legislation as it applies to this project
- Address the requirements of the Environment Protection Licence issued for the works undertaken for the SPBT3 Project
- Summarise potential impacts on the environment from the proposed works
- Document environmental procedures to control potential environmental impacts.

Responsibilities for the implementation and management of this OOHWP are in accordance with the Project's Construction Environmental Management Plan.

1.2 Targets

The following targets have been identified in terms out of hours works management for the project:

- Comply with all statutory requirements relating to night-time works.
- Avoid or minimise adverse noise impacts from construction wherever possible through construction methodology and appropriate management measures
- Meet night-time construction noise limits.
- Complete monitoring noise monthly and in response to complaints.

1.3 Commitment

1.4 Statutory provisions and guidelines

The following statutory provisions and guidelines are applicable to the Project, with regards to out of hours works:

- Interim Construction Noise Guideline (2009, DECCW)
- Green Port Guidelines: Sustainable strategies for port developments and operations
- Protection of the Environment Operations Act 1997 (NSW)
- Protection of the Environment Operations (Noise Control) Regulation 2008 (NSW).

1.5 Ministers Conditions of Approval

MCoA's relevant to out of hours works management are outlined below.

MCoA Reference	MCoA Detail
B2.19	The Applicant shall only undertake construction activities associated with the project (with the exception of dredging construction activities) that would generate an audible noise at any residential premises during the following hours: 7:00 am to 6:00 pm, Mondays to Fridays, inclusive; 8:00 am to 1:00 pm on Saturdays; and at no time on Sundays or public holidays. Audible noise is defined as “noise that can be heard at the receiver”. This condition does not apply in the event of a direction from police or other relevant authority for safety or emergency reasons. Note: ‘safety or emergency reasons’ refers to emergency works which may need to be undertaken to avoid loss of life, property loss and/or to prevent environmental harm.
B2.19A	The Applicant must seek the Director-General’s approval to conduct construction activities audible at residential premises (with the exception of dredging construction activities) outside the hours specified under condition B2.19 on a case by- case basis. In seeking the Director-General’s approval, the Applicant shall demonstrate a need for activities to be conducted during varied hours and how local acoustic amenity will be protected, as well as details of how the EPA’s requirements with respect to the variation of hours have been addressed.
B2.19B	For activities subject to an environment protection licence issued by the EPA under the Protection of the Environment Operations Act 1997, conditions B2.19 and B2.19A do not apply if the EPA has approved activities to be conducted outside the hours permitted by condition B2.19.
B2.24	The Applicant is required to identify measures to be implemented to ensure that where movement alarms are fitted to vehicles, plant or equipment entering or operating on the site, such alarms are of a type that minimises noise at noise sensitive receivers.
B2.25	The Applicant must install all physical noise management measures as early as is practicable during construction of the Port Botany Expansion project.

2. References

- NSW Industrial Noise Policy, January 2000
- Environmental Noise Control Manual, DECC

- AS 2436: Guide to noise control on construction, maintenance and demolition sites
- AS 1055: Acoustics - Description and measurement of environmental noise
- AS 2012: Acoustics - Measurement of airborne noise emitted by earth-moving machinery - Stationary test condition - Determination of compliance with limits for exterior noise
- City of Botany Bay Standard Noise Criteria, adopted by Council 23 May 2001.
- Project EIS

3. Strategic Approach

3.1 Existing Environment

Existing noise levels are outlined in the Construction Noise and Vibration Management Plan.

3.2 Potential Impacts

Activities may be undertaken out of standard construction hours for the following reasons:

- Safety reasons for the protection of workers and members of the public
- Reduce disruption to traffic and the community
- Satisfy operational requirements of government agencies or authorities
- Due to unforeseen circumstances.

Noise generating activities that may be required to occur out of hours are:

- Concrete and pavement works
- Concrete batching activities
- Road works that may be required to be undertaken at night for safety or traffic reasons;
- Movement and reversing alarms of construction equipment, trucks and vehicles; and
- Generators for lighting or power.
- Works where temporary road lane closures along Foreshore Road are required to be undertaken out of hours;
- Temporary utility shutdowns during off peak periods for service installation works and cut-overs;
- Delivery to site, and removal from site, of over-sized plant and equipment to conform to RTA requirements;
- Minor works such as pothole and road repairs; and
- Concrete pours that need to be completed.

3.3 Approvals

Where there is a requirement for out of hours activities that are not previously authorised by the MCoA or Environmental Protection Licence, and would be audible at sensitive receivers, Laing O'Rourke is required to submit relevant information to DoP for consideration under Condition B2.19A of the MCoA.

This would include justification of the varied construction hours, appropriate notification to sensitive receivers, and noise reduction measures to be put in place. Appropriate community notification would be required.

It is noted that extended hours will be submitted to the relevant authority to allow for successful pavement and concreting works. The proposed hours are outlined below and will be finalised on discussion with Department of Planning.

Standard construction hours that will relate to the entire project;

- 7am to 6pm, Mondays to Fridays, inclusive;
- 8am to 1pm on Saturdays; and
- at no time on Sundays or public holidays.

Dewatering and security operations may require to be operational throughout the night but will not require a variation in working hours if they are deemed to be inaudible at the closest receivers.

3.4 Construction Noise limits

The noise criteria identified in the MCOA is that the LA10 (15 min) noise contribution from construction should not exceed Rating Background Level (RBL) plus 5dB(A) at any time at sensitive receivers. It is important to note that the noise criteria is only applicable to noise emissions related to the construction activities associated with the project, that is, the noise criteria does not include allowance for contributions from other prevailing noise sources such as road traffic, aircraft noise, bird noise, industrial noise, and other construction activities not associated with the project.

Construction hours are 7am to 6pm on weekdays and 8am to 1pm on Saturdays, however approval will be sought for concrete and pavement works to work outside these hours.

Construction noise limits are outlined in detail in the Construction Noise and Vibration Management plan.

3.5 Out of Hours Works Monitoring

Monitoring Item	Frequency	Responsibility
Ongoing construction out of hours attended noise monitoring at sites nominated in the CNVMP	Monthly and at commencement of construction stages.	Environment Manager
Intermittent construction out of hours attended noise monitoring at sites nominated in the CNVMP	During out of hours activities	Environment Manager
If a noise-related complaint is received, respond within two hours, and undertake investigative monitoring at complainant's property If a noise-related complaint is received, investigate within one hour. If requested undertake attended monitoring at complainant's property	If requested by a complainant, or at the request of OEH	Environment Manager

4. Mitigation Measures

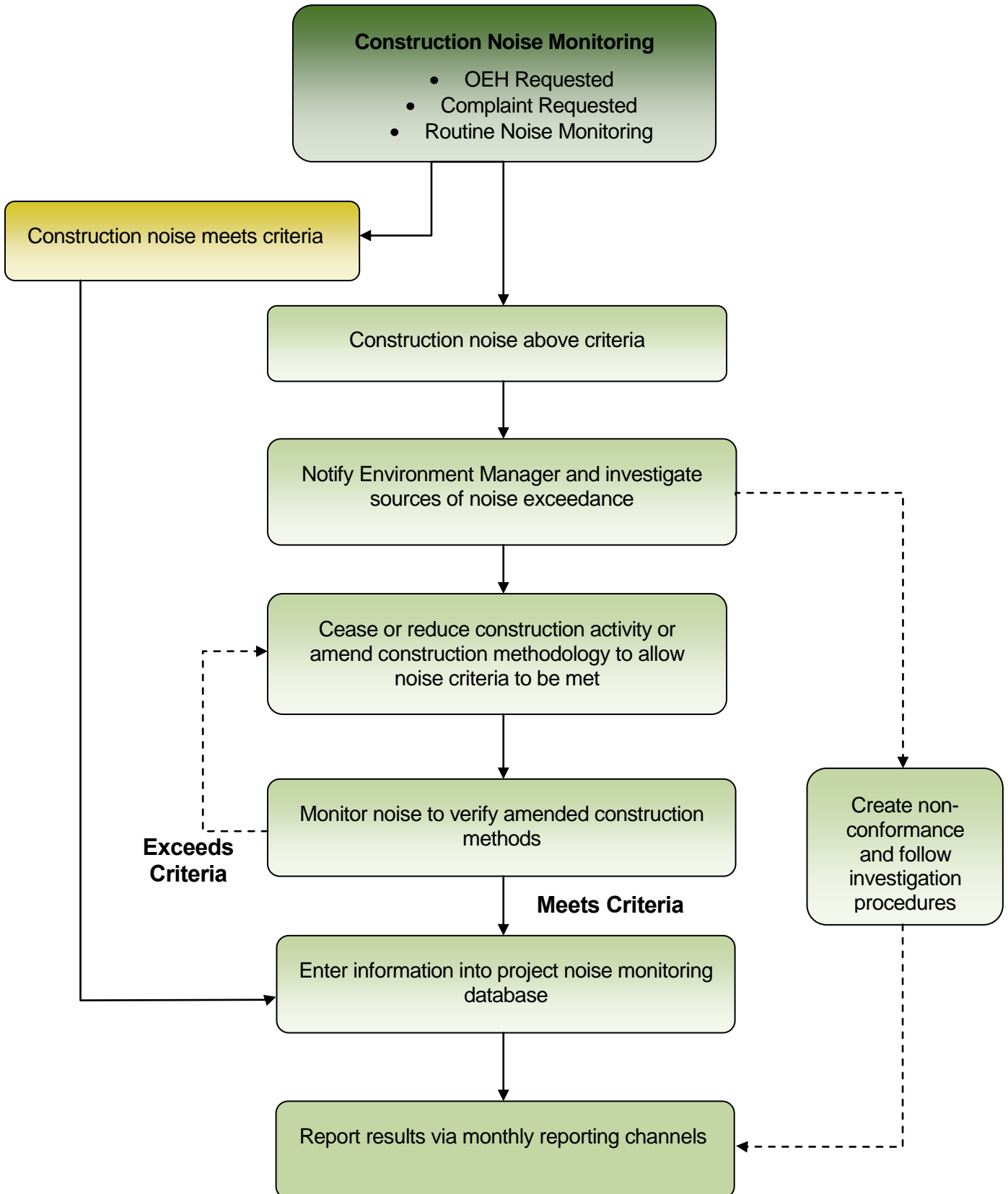
Mitigation measures for out of hours works management for the construction phase of the project are outlined below.

Mitigation Measures	Responsibility	Source of Requirement	Timing
Ensure that audible construction activities are only undertaken between 7am and 6pm Mondays to Fridays, and Saturday 8am to 1pm, unless approved by OEH or DOP, or are for emergency or safety reasons	Environment Manger Project Manager	MCoA B2.19	Throughout construction
Notify residents of construction activities likely to affect amenity due to noise or vibration at least 5 days in advance	Project Engineer	MCoA B2.20	Throughout construction
Undertake noise monitoring during out of hours works to verify the predicted noise levels and construction methods	Environment Manger	Best Practice	Throughout construction
Use silenced generators and compressors	Superintendent	Best Practice	Throughout construction
Position noisy plant and equipment as far apart as is practical from each other, and consider whether orientation of the plant can reduce noise impacts at residential receivers.	Superintendent	Best Practice	Throughout construction
Install all noise controls identified in this protocol as early as is practical prior to the relevant stage of construction.	Project Engineer Environment Manager	MCoA B2.25	Throughout construction
Prevent vehicles and plant queuing and idling outside the site prior to the morning start time	Superintendent	MCoA B2.20	Throughout construction
Prevent vehicles and plant idling when not in use	Superintendent	MCoA B2.20	Throughout construction
Ensure that equipment is operated in the correct manner including repair of defective mufflers, tightening of rattling components, and repair of leakages in compressed air lines.	Superintendent	MCoA B2.26	Throughout construction
Where out of hours works are predicted to be audible at residential premises, and are not subject to an environmental protection licence from OEH, obtain approval from the Director-General prior to commencing works.	Environment Manager	MCoA B2.19	Throughout construction
Undertake verification of the noise model for night-time works	Environment	Best Practice	Throughout

Sydney Port Botany Terminal 3 Project
Out of Hours Works Protocol

Mitigation Measures	Responsibility	Source of Requirement	Timing
using noise measurements of equipment, and at locations identified in the CNVMP.	Manager		construction
Arrange work sites to avoid or minimise truck reversing movements, and ensure vehicles enter and exit work sites in a forward direction	Superintendent	MCoA B2.20	Throughout construction
Ensure that where options exist, use least noisy construction methods and equipment	Superintendent Project Engineer	MCoA B2.20	Throughout construction

5. Out of Hours Noise Exceedance Response



6. Training

All site personnel shall undergo site specific induction training which will include environmental awareness. It will also include information in hours of work requirements.

Toolbox meetings will also be undertaken as and when required. They will cover specific environmental issues and shall include out of hours works management where relevant.

Personnel directly involved in implementing sediment and erosion control measures on site will be given specific training in the construction, operation and maintenance of the various measures to be implemented. Training of site personnel will be ongoing through the project to ensure environmental awareness and competency is incorporated into all work during the project.

Personnel conducting measuring, monitoring and reporting activities are to be suitably trained or experienced in the activity. Records of all training are to be filed in accordance with the project filing system.