

WestConnex M4–M5 Link

Ambient Air Quality Goal Protocol

Condition E32

Revision history

This document interfaces with the M4-M5 Link Operational Air Quality Management Plan, within the M4-M5 Link Operational Environmental Management Plan (OEMP), which together describe the proposed overall management system for the I&M Services.

The latest revision of this document is available on Contract Workspace. If any unsigned hard copies of this document are printed, they are valid only on the day of printing.

The revision number is included at the bottom of each page. When revisions occur, the entire document will be issued with the revision number updated accordingly.

Appendices to this plan may be revised independently of this plan.

Rev No	Revised by	Reviewed and Approved by:	Date	Description/Summary of Changes
0.1	K Hincks		27/7/21	Initial issue for internal review and approval
0.2	K Hincks		8/8/21	Initial issue for internal review and approval
0.3	K Hincks		30/9/21	Revised to incorporate AQCCC comments
0.4	K Hincks		6/12/21	Revised to incorporate DPIE comments
1				
2				
3				

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Glossary

Term Used	Explanation
AM-1	Ambient monitoring – guide for the siting of sampling units
AM-2	Ambient monitoring – guide for measurement of horizontal wind for air quality applications
AM-4	Ambient monitoring – meteorological guidance for regulatory modelling applications
AM-6	Ambient monitoring – Carbon monoxide
AM-12	Ambient monitoring – Nitrogen oxides
AGR	Above-goal reading (ambient monitoring only)
AQCCC	Air Quality Community Consultative Committee
AQMS	Ambient air quality monitoring station
ASIC	Australian Securities and Investment Commission
Background levels	Existing concentrations of pollutants in the ambient air
CO	Carbon Monoxide
CoA	Minister's Conditions of Approval
DPIE	NSW Department of Planning, Industry and Environment
EMT	Emergency Management Team
EPA	NSW Environment Protection Authority
Minister, the	Minister for Planning
NATA	National Association of Testing Authorities, Australia
NEPM	National Environment Protection (Ambient Air Quality) Measure 2016
NO	Nitric Oxide
NO ₂	Nitrogen Dioxide
NO _x	Oxides of Nitrogen
O&M	Operations and Maintenance
I&M Contractor	The contractor engaged to deliver the incident response and maintenance contract for the M4-M5 Link project.
OAQMP	Operational Air Quality Management Plan
OEMP	Operational Environmental Management Plan
PM ₁₀	Particulate matter (10 micrometres or less in diameter)
PM _{2.5}	Particulate matter (2.5 micrometres or less in diameter)
Project Company	WestConnex Transurban The Project Company, WestConnex Transurban has been engaged by Transport for New South Wales to deliver the M4-M5 Link Tunnels project. WestConnex Transurban has in turn, engaged the Contractor, ASBJV to design and construct the project

Project, the	WestConnex M4-M5 Link Tunnels
Reasonable and Feasible	<p>Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context.</p> <p>Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account mitigation benefits and cost of mitigation versus benefits provided, community expectations and nature and extent of potential improvements.</p>
Relevant council(s)	Any or all as relevant, Inner West or City of Sydney
Secretary	Secretary of the Department of Planning, Industry and Environment
Secretary's approval	A written approval from the Secretary (or delegate)
SSI	State Significant Infrastructure
TfNSW	Transport for New South Wales

1 Introduction

1.1 Purpose and Overview

This Ambient Air Quality Goal Protocol has been developed to satisfy the requirements of condition E32 of the Conditions of Approval (CoA) for the WestConnex M4-M5 Link project (the project).

Condition E32 requires that an Ambient Air Quality Goal Protocol (Protocol) be prepared for the evaluation of a potential measurement that exceeds the ambient air quality goals. The Protocol is to include a form and process for notifying the measurement that exceeds the goal; the form and contents for reporting the measurement; and the process for appointing an independent person to prepare a Report on the Above-Goal Recording.

1.2 Environmental Management System

The Incident and Maintenance (I&M) Contractor will utilise an Integrated Management System for environmental management. The I&M Contractor's environmental management system (EMS) has been certified as complying with AS/NZS ISO 14001.

The EMS includes the Operational Environmental Management Plan (OEMP) which provides the detail of how the environmental aspects of the project will be managed during the operational phase. The OEMP provides the overall framework for the system and procedures to ensure environmental impacts are minimised and legislative and other requirements are fulfilled.

This Ambient Air Quality Goal Protocol forms part of the management system documents which are to be implemented on the WestConnex M4-M5 Link. It is to be read in conjunction with the other management system documents including the OEMP, the Operational Air Quality Management Plan and the reporting system for in-tunnel, ambient and ventilation outlet limits required by CoA E23 (website reporting).

1.3 Consultation

In accordance with CoA E32, the Ambient Air Quality Goal Protocol must be prepared in consultation with the M4-M5 Link Tunnels Air Quality Community Consultative Committee (AQCCC).

The AQCCC were consulted during the preparation of this document. The AQCCC were sent a draft of the protocol prior to the September 2021 meeting and was discussed at the meeting. Minor editorial changes were requested by members of the AQCCC, the protocol was revised following these comments.

2 Environmental Obligations

Legislative obligations relating to air quality, including ambient air quality, are detailed within the Operational Air Quality Management Plan.

2.1 Conditions of Approval

Conditions of the Infrastructure Approval for the project that are relevant to the Ambient Air Quality Goal Protocol (Protocol) are provided in the table following.

A cross-reference is included to indicate where each condition is addressed in this Protocol or other project management documents.

Table 2-1 Conditions of Approval

CoA Ref	Requirement	Reference
A40	The Secretary must be notified as soon as possible and in any event within 24 hours of any incident.	See Flowchart
E6	Should ambient monitoring of air pollutants exceed the following goals, the provisions of Conditions E32, E33 and E34 will apply: (a) CO – 8 hour rolling average of 9.0 ppm (NEPM); (b) NO ₂ – One hour average of 0.12 ppm (245 µg/m ³) (NEPM); (c) PM ₁₀ – 24 hour average of 50 µg/m ³ (NEPM); (d) PM _{2.5} – 24 hour average of 25 µg/m ³ (NEPM); (e) PM ₁₀ – annual average of 25 µg/m ³ (NEPM); (f) and PM _{2.5} – annual average of 8 µg/m ³ (NEPM) <i>Note: The notification and reporting obligations under conditions E32, E33 and E34 relating to ambient monitoring will begin at the commencement of operation of the CSSI. The first annual average concentrations for PM₁₀ and PM_{2.5} must be calculated on the first day the project been in operation for 12 months and on a rolling basis thereafter.</i>	Section 3
E7	Conditions E3, E4, E5, and E6 do not apply in an emergency, as defined in the OEMP required by Condition D1 .	Section 3.1
E8	The Proponent must, as soon as reasonably practicable, notify the Secretary and the EPA of any discharge during an emergency.	Section 3.1
E10	All tunnels must be designed and constructed so as to allow for future modification of the ventilation system if required. The Proponent must submit a report to the Secretary demonstrating how this will be allowed for prior to finalising detailed design.	Section 5.3
E24	The Proponent must monitor (by sampling and obtaining results by analysis) the pollutants and parameters specified in Table 8 using the sampling method, units of measure, and sampling frequency specified in the table. Monitoring must be undertaken at the following locations as a minimum: (a) two ground level receptors near the Rozelle ventilation outlet, at locations suitable for detecting any impact on air quality from the outlet; (b) two ground level receptors near the Victoria Road ventilation outlet, at locations suitable for detecting any impact on air quality from the outlet; (c) two ground level receptors near the Campbell Road ventilation outlet, at locations suitable for detecting any impact on air quality from the outlet with one in a location different to that established under SSI 6788; and (d) two ground level receptors near the Haberfield ventilation outlet, at location suitable for detecting any impact on air quality from the outlet (these may be the same as those established under SSI 6307).	Section 3

Table 8: Ambient Air Quality Monitoring Methodologies

Pollutant	Units of measurement	Averaging Period	Frequency	Method ¹
NO	pphm	1-hour	Continuous	AM-12
NO ₂	pphm	1-hour	Continuous	AM-12
NO _x	pphm	1-hour	Continuous	AM-12
PM ₁₀	µg/m ³	24-hour	Continuous	AS3580.9.8-2008 ²
PM _{2.5} ⁵	µg/m ³	24-hour	Continuous	AS3580.9.13-2013 ³ or as otherwise agreed by the Secretary in consultation with the EPA
CO	ppm	1-hour, 8-hour	Continuous	AM-6
Parameter ⁴	Units of measurement	Averaging Period	Frequency	Method ¹
Wind Speed @ 10 m	m/s	1-hour	Continuous	AM-2 & AM-4
Wind Direction @ 10 m	°	1-hour	Continuous	AM-2 & AM-4
Sigma Theta @ 10 m	°	1-hour	Continuous	AM-2 & AM-4
Temperature @ 2m	K	1-hour	Continuous	AM-4
Temperature @ 10 m	K	1-hour	Continuous	AM-4
Other	Units of measurement	Averaging Period	Frequency	Method ¹
Siting	NA	NA	NA	AM-1 & AM-4

Notes:

1. *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2007) or as otherwise agreed by EPA.*
2. *AS3580.9.8-2008, Methods for the Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM10 Continuous Direct Mass Method using Tapered Element Oscillating Microbalance Analyser (Standards Australia, 2008).*
3. *AS 3580.9.13-2013, Methods for the Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM2.5 Continuous Direct Mass Method using a Tapered Element Oscillating Microbalance Analyser (Standards Australia, 2013).*
4. *TBD - location for meteorological monitoring station(s) to be representative of weather conditions likely to occur in the vicinity of the Haberfield, Rozelle (including the Rozelle Rail Yards and Victoria Road) and Campbell Road ventilation outlets.*
5. *Appropriately modified to include size selective inlet for PM2.5 or as otherwise approved by the EPA.*

E27 The Proponent must develop and implement a reporting system for in-tunnel and ambient limits. The reporting system must be approved by the Secretary and fully implemented and operational prior to operation. Minimum analytical reporting requirements for air pollution monitoring stations must be as specified in the *Approved Methods of Modelling and Assessment of Air Pollutants in NSW* (EPA, 2007, or as updated).

A reporting system for in-tunnel, ventilation outlet and ambient air quality limits will be developed in consultation with EPA.

CoA Ref	Requirement	Reference
E32	<p>The Proponent must prepare an Ambient Air Quality Goal Protocol for evaluating a potential measurement that exceeds the goals in Condition E6. The Ambient Air Quality Goal Protocol must be developed by the Proponent in consultation with the AQCCC and submitted to the Secretary for approval at least 12 months prior to the commencement of operation of the CSSI.</p> <p>The Ambient Air Quality Goal Protocol must include:</p> <ul style="list-style-type: none"> (a) a process for notification of a recording above the ambient air quality goals in Condition E6, subject to Condition E33; (b) the template that would be used for the Report on Above-Goal Recording, required by Condition E34; and (c) a process for appointing an independent person/organisation to prepare the Report on Above-Goal Recording. The process must include – <ul style="list-style-type: none"> (i) approval of the independent person (independent of the environmental assessment, design and construction of the CSSI) by the Secretary prior to preparation of the report, and (ii) the appointment of the independent person/organisation at least one (1) month prior to the commencement of operation, or at some other time prior to preparation of the report with the agreement of the Secretary. 	<p>This document</p> <p>The evaluation occurs by Section 5.2 and 5.3</p> <p>Section 5 and Appendix A1</p> <p>Section 5 and Appendix A2</p> <p>Section 6</p> <p>Section 6</p> <p>Section 6</p>
E33	<p>In addition to the general reporting requirements specified in Condition E27, the Proponent must notify the Secretary, EPA and Ministry of Health of any recordings above the goals in Condition E6 as soon as possible and within 24 hours of the recording. This notification must provide details of the circumstances of the event, including:</p> <ul style="list-style-type: none"> (a) the nature of the event; (b) the concentration levels that occurred; (c) the timing and duration of the event; (d) the measures employed to minimise the concentration levels; and (e) the date when the Proponent will submit a Report on Above-Goal Recording in accordance with Condition E34. 	<p>Section 5, Section 5.1.2 and Section 3</p>
E34	<p>Within 20 working days of any Notification of Above-Goal Recording, the Proponent must prepare and submit to the Secretary for information a Report on Above-Goal Recording that details the cause and major contributor of the exceedance, the effectiveness of any action(s) taken in response to the exceedance and the options available to prevent recurrence.</p>	<p>Section 5.3</p> <p>Appendix A2</p>
	<p>Where the operation of the tunnel is identified to be a significant contributor to the recorded above-goal reading, the Report on Above-Goal Recording must include consideration of improvements to the tunnel air quality management system so as to achieve compliance with the ambient air quality goals, including but not limited to installation of the additional ventilation management facilities allowed for under Condition E10.</p>	

3 Ambient Air Quality Goals

The ambient air quality criteria for the M4-M5 Link are defined in CoA E6 and are provided below in the table following:

Table 3-1 Ambient air quality criteria (CoA E6)

Parameter	Concentration limit	Units of measure	Averaging period	Source
CO	9.0	ppm	Rolling 8-hour	NEPM
NO ₂	0.12 (245 µg/m ³)	ppm	1 hour	NEPM
PM ₁₀	50	µg/m ³	24 hour	NEPM
PM _{2.5}	25	µg/m ³	24 hour	NEPM
PM ₁₀	25	µg/m ³	1 year	NEPM
PM _{2.5}	8	µg/m ³	1 year	NEPM

**Note: The notification and reporting obligations under conditions E32, E33 and E34 relating to ambient monitoring will begin at the commencement of operation of the CSSI. The first annual average concentrations for PM₁₀ and PM_{2.5} must be calculated on the first day the project has been in operation for 12 months and on a rolling basis thereafter.*

In accordance with CoA E6, should ambient monitoring of air pollutants exceed the goals listed in Table 3-1, CoAs E32, E33 and E34 apply and notification and reporting of the above-goal reading shall occur as required.

For the reporting of above-goal readings of the annual average (1-year averaging period), the first annual average result will not be available until at least 12 months following the commencement of operation. As the first annual average result will not be available until this time, any notifications or reports of above-goal readings of the annual average will also not be available until at least 12 months following the commencement of operation.

3.1 Emergency discharge

In accordance with CoA E7, the air quality criteria identified in Table 3-1 do not apply in an emergency situation (refer also CoA A40). An 'emergency' has been defined in the OEMP.

In the event of an emergency situation that results in discharge(s) that exceed the nominated criteria, the Secretary and the EPA would be notified in accordance with CoA E8.

4 Monitoring

4.1 Monitoring methodologies

The I&M Contractor will monitor the pollutants and parameters, using the sampling method, units of measures and frequency specified in the table following:

Table 4-1 - Ambient Air Monitoring Methodologies (CoA E24)

Pollutant	Units of Measurement	Averaging Period	Frequency	Method
NO	pphm	1-hour	Continuous	AM-12
NO ₂	pphm	1-hour	Continuous	AM-12
NO _x	pphm	1-hour	Continuous	AM-12
PM ₁₀	µg/m ³	24 hour	Continuous	AS 3580.9.8-2008 ²
PM _{2.5} ⁵	µg/m ³	24 hour	Continuous	AS 3580.9.13-2013 ³
CO	ppm	1-hour, 8 hour	Continuous	AM-6
Parameter ⁴	Units of measure	Averaging period	Frequency	Method ¹
Wind speed @10 m	m/s	1-hour	Continuous	AM-2 & AM-4
Wind direction @ 10 m	°	1-hour	Continuous	AM-2 & AM-4
Sigma Theta @ 10 m	°	1-hour	Continuous	AM-2 & AM-4
Temperature @ 2 m	K	1-hour	Continuous	AM-4
Temperature @ 10 m	K	1-hour	Continuous	AM-4
Other	Units of measure	Averaging period	Frequency	Method ¹
Siting	N/A	N/A	N/A	AM-1 & AM-4

TABLE NOTES

1. Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2007) or as otherwise agreed by EPA.
2. AS3580.9.8-2008, Methods for the Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM₁₀ Continuous Direct Mass Method using Tapered Element Oscillating Microbalance Analyser (Standards Australia, 2008).
3. AS 3580.9.13-2013, Methods for the Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM_{2.5} Continuous Direct Mass Method using a Tapered Element Oscillating Microbalance Analyser (Standards Australia, 2013).
4. TBD - location for meteorological monitoring station(s) to be representative of weather conditions likely to occur in the vicinity of the Haberfield, Rozelle (including the Rozelle Rail Yards and Victoria Road) and Campbell Road ventilation outlets.
5. Appropriately modified to include size selective inlet for PM_{2.5} or as otherwise approved by the EPA

The ambient air quality monitoring stations were established and are operated by Ecotech Pty Ltd. Ecotech Pty Ltd were approved by the Secretary on 23 June 2021 (after satisfactory consultation with the EPA and AQCCC) as being an organisation sufficiently skilled and accredited by the National Association of Testing Authorities Australia to supply and operate the air quality monitoring stations as required under CoA E25.

Ambient monitoring of pollutants for the purposes of notification and reporting obligations under CoAs E32, E33 and E34 will begin at the commencement of operation. As such, the first annual average of pollutants will be available 12 months following the commencement of operations.

4.2 Monitoring Locations

Ambient air quality monitoring occurs at four monitoring locations. These are described in the table following and shown in Figure 1 to Figure 3.

Table 4-2 - Monitoring Locations and Standards

Figure	Reference	Location	Landowner
1	Site 1	Ramsay Street, near Martin Street, Haberfield	TfNSW
1	Site 2	Wattle Street, Near Ramsay Street, Haberfield	TfNSW
2	Site 3	Campbell Street, between Church Street and Princess Highway, St Peters	TfNSW
2	Site 4	St Peters Interchange, near Princess Highway	WestConnex



Figure 1 - Ambient Air Quality monitoring stations

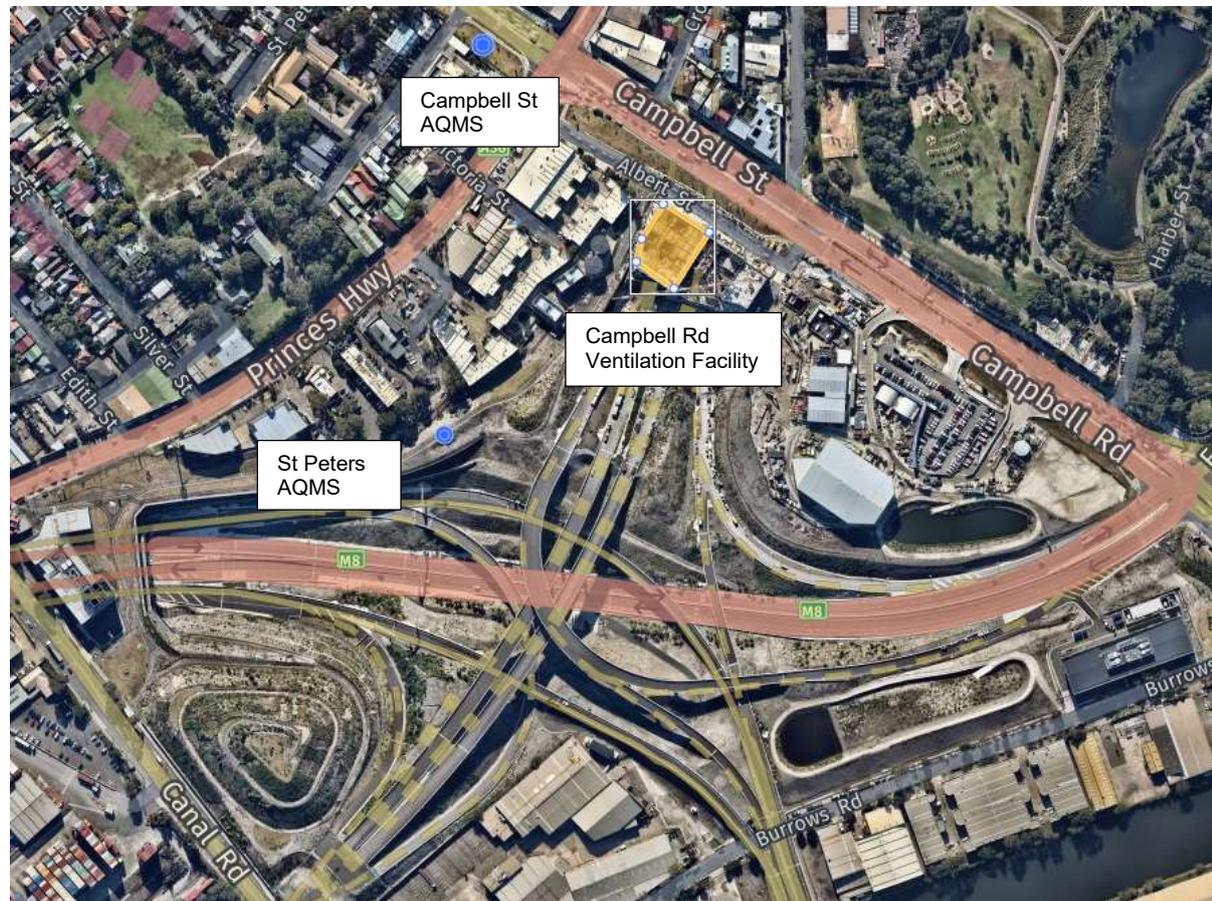


Figure 2 - Ambient air quality monitoring stations

5 Notification and reporting of above-goal readings

The key steps in notification and reporting of above-goal readings are detailed within Figure 5-1 and include:

1. Notify the above-goal reading
2. Investigate the above-goal reading
3. Report the above-goal reading.

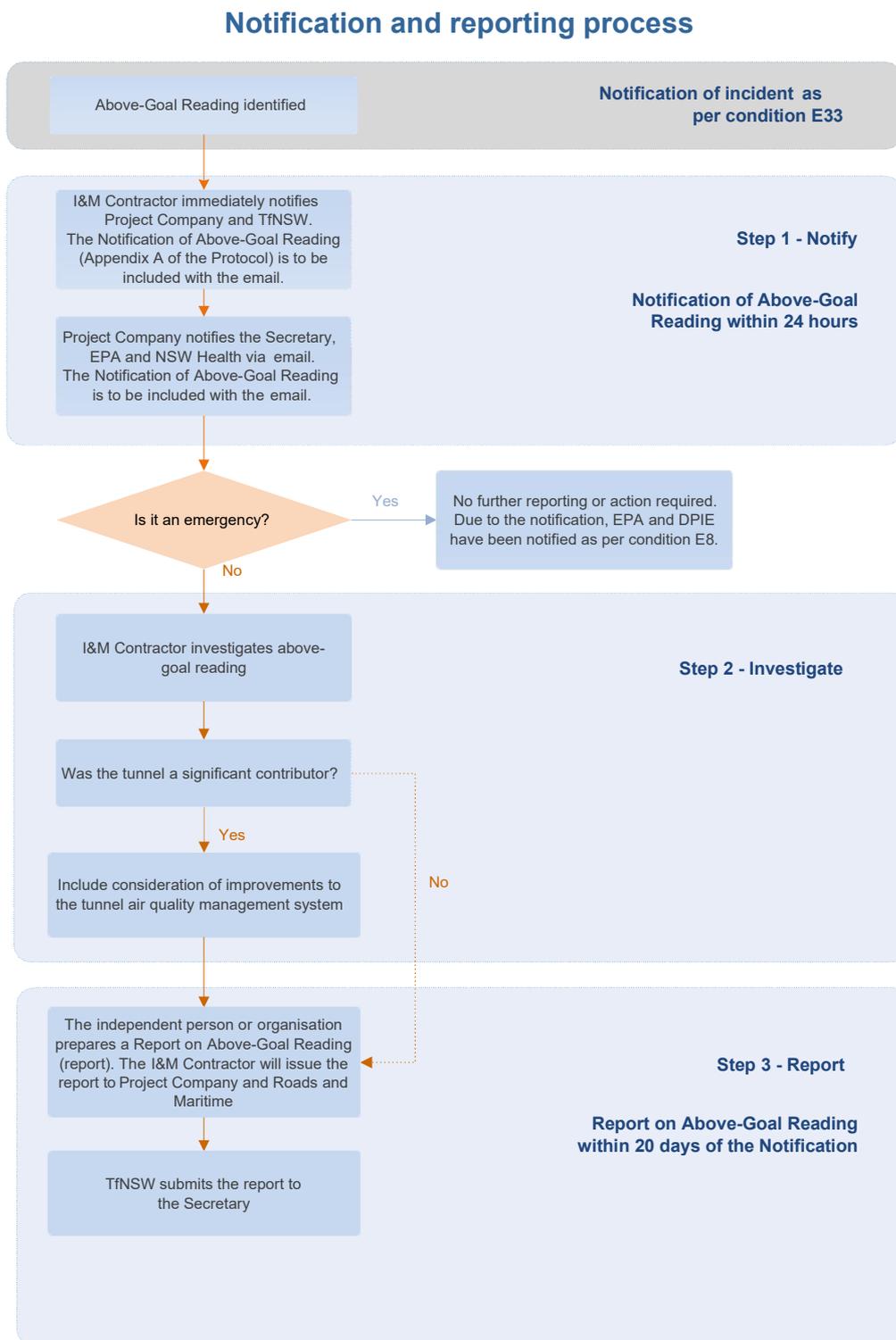


Figure 3 - Notification and reporting process for above goal readings

5.1 Notify the above-goal reading

When an exceedance of the air quality goals detailed within CoA E6 occurs, it will be reported as an 'incident' in accordance with the requirements of CoA E33 and then the steps within Section 5.1.1 and 5.1.2 will be followed.

5.1.1 Notifying Project Company and TfNSW

Upon identification of an above-goal reading, the I&M Contractor will immediately notify Project Company and TfNSW.

The email notification included in section 5.1.2 will be provided along with the completed form within Appendix A.

5.1.2 Notifying the Secretary, EPA and NSW Health

The Project Company will notify the Secretary, EPA and NSW Health. The notification is to be provided within 24 hours of the reading.

Form of Notification

As per CoA E33 the form of notification will be via the major projects portal for the Secretary and email for all other agencies with the Notification of Above-Goal Reading form (Appendix A) attached or included within the email. As required by CoA E33, the Notification of Above-Goal Reading form will provide details of:

- (a) the nature of the event;
- (b) the concentration levels that occurred;
- (c) the duration of the event;
- (d) measures employed to minimise the concentration levels;
- (e) the date when the Proponent will submit a Report on Above-Goal Recording in accordance with Condition E34.

The sample content of the email is indicated in Figure 5.

 Send	From ▾	Objective Store
	To	
	Cc	
	Subject	WestConnex M4-M5 Link - Ambient Above-Goal Notification - Condition E33
<p>The calculated <condition> concentration has exceeded the <level> at one or more of the following stations:</p> <ul style="list-style-type: none"> • <monitoring location>, <date>, <time>, <concentration> <p>This notification only contains unvalidated data.]</p>		

Figure 4 - Sample content of the email notification

An example of an email which would be issued is provided below:

	From ▾	Objective Store
	To	
	Cc	
Subject		WestConnex M4-M5 Link - Ambient Above-Goal Notification - Condition E33
<p>The calculated 24 hour average PM₁₀ concentration has exceeded the 50 ug/m³ at one or more of the following stations;</p> <ul style="list-style-type: none"> Ramsay Street, Haberfield 20/05/2022, 15:00, 54 ug/m³ <p>This notification only contains unvalidated data.</p>		

Figure 5 - An example of an email for issue. The completed form within Appendix A will be included.

The Notification of Above-Goal Reading form within Appendix A will be attached or included with the email notification.

5.1.3 Contact details for notification

The table below provides the contact details for those stakeholders that will be notified.

Table 5-1 - Contact details for stakeholders that are to be notified

Organisation	Contact Position	Telephone	Email
Department of Planning, Industry & Environment (DPIE)	Secretary of the Department Team Leader Compliance – Government Projects	NA	Submitted via the Major Projects Planning Portal compliance@planning.nsw.gov.au
EPA	Duty Officer	(02) 9995 5000 or 131 555	info@environment.nsw.gov.au
NSW Health	Director, Environmental Health	(02) 9424 5817	Moh-ehp@health.nsw.gov.au
TfNSW	TBA	TBA	TBA prior to commencement of operation
Project Company	TBA	TBA	TBA prior to commencement of operation

It is the responsibility of the organisations detailed above to contact the I&M Contractor, in writing to I&M Manager (MCC) (refer Appendix C), should their contact details change.

5.2 Investigate the above-goal reading

To determine whether an Above-Goal Reading is attributable to external phenomena or events or emissions from the M4-M5 Link Motorway tunnel outlets, the below investigations will be undertaken.

5.2.1 Validate Results

Within two days of the above-goal reading, the data will be quality validated.

If the data validity checks confirm that the recorded Above-Goal Reading was not valid and was due to an instrument fault or data error, the independent person will complete the Report for Above-Goal Reading (Appendix B) and will submit this document to Project Company and TfNSW. TfNSW will submit the report to DPIE.

A copy will also be placed on the WestConnex Linkt website.

If the data validity checks confirm that the recorded Above-Goal Reading was valid, the I&M Contractor will proceed to section 5.2.2.

5.2.2 Assess whether an emergency occurred

Should the investigation determine that an emergency occurred (as defined in Section 3.1), no further reporting shall occur.

It is considered that notification of the above-goal reading to DPIE and EPA has occurred in accordance with CoA E33 through submission of the Notification of Above-Goal Reading.

A written record of the result of the investigation (ie that it is an emergency) is to be retained by the I&M Contractor and Project Company and TfNSW are to be advised of the finding.

5.2.3 Further investigation of valid results

If the investigation confirms that the data is valid, and an emergency does not appear to have occurred, further investigations will be undertaken, and the I&M Contractor will request the independent person/organisation prepare a Report on Above-Goal Reading.

Further investigations of the potential cause may include the below steps.

Sydney-wide events

Obtain data for other ambient air quality monitoring stations in the Sydney Basin from the EPA for concurrent monitoring periods to determine whether the exceedance is a Sydney-wide event. This would include information from other projects' AQM stations such as the M8..

If the monitored exceedance is widespread, it is likely that there was an external cause. In this instance, the I&M Contractor will contact relevant authorities such as the Bureau of Meteorology and State Emergency Services to determine if a regional event has occurred consistent with the recorded exceedance.

Locally specific events

If the exceedance is not widespread throughout the Sydney basin, a local cause is possible and supplementary investigations should be undertaken, such as consulting with relevant stakeholders such as (for example) EPA or relevant Councils, with the aim of establishing whether a specific localised source may have affected one or more monitoring stations. Localised activity (e.g. rubbish burning or unusually high emissions from an industrial premise (with unfavourable weather conditions)) may adversely affect the readings.

Monitoring equipment calibration

In the circumstance where the investigations are unable to identify a logical cause of the exceedance, further investigations may be undertaken to investigate whether the monitoring equipment is calibrated and functioning effectively.

Assessment of outlet emissions

A review of the ventilation outlet emissions data will be checked to determine whether emissions are higher or considerably different to emissions over previous periods, with similar traffic conditions within the tunnel.

Assessment of background data

An assessment against background data (or pre-operational data) may also occur.

5.3 Report on Above Goal Reading

If the investigation confirms that there was not an emergency, the I&M Contractor will request the independent person/organisation (once approved) to prepare a Report on Above-Goal Reading in accordance with CoA E34.

The Report on Above-Goal Reading (Report) (Appendix B) will detail the cause and major contributor of the exceedance and options available to prevent recurrence.

Where the operation of the tunnel is identified to be a significant contributor to the recorded above-goal reading, the Report on Above-Goal Recording must include consideration of improvements to the tunnel air quality management system so as to achieve compliance with the ambient air quality goals, including but not limited to installation of the additional ventilation management facilities allowed for under CoA E10.

The Report will be submitted within 20 working days of any Notification of Above-Goal Reading and the Proponent will comply with any requirements arising from the Secretary's review of the Report.

6 Process of Appointing Independent Person / Organisation

6.1 Definition of an independent person / organisation

The Australian Securities and Investment Commission (ASIC) *Regulatory Guide 112 Independence of Experts (March 2011)* states that an expert must not be associated with certain interested parties, and must disclose certain interests and relationships, when preparing reports².

Any disclosures should be contained within the report/s, relate to relationships or interests existing at the time of preparation of the report or existing in the previous two years and be timely, prominent, specific and meaningful.³

DPIE have developed a guideline on the appointment of independent experts titled **Seeking approval from the Department for the appointment of independent experts**. The requirements within the guide plus the ASIC literature will be used to determine the independent expert nominated by the project.

6.2 Definition of an Independent Person / Organisation

Whilst it does not define an independent *organisation* in itself, ASIC's RG 112.23 states that in identifying relationships and interests that may affect, or may be perceived to affect, the expert's ability to prepare an independent report, the expert should not only identify relationships with, and interests of, the expert but also of:

- (a) the expert's associates;
- (b) those directors and senior employees who are principally responsible for preparing and issuing the expert report; and
- (c) the spouse, children and associates of the directors and senior employees who are principally responsible for preparing and issuing the expert report.

The I&M Contractor will adhere to ASIC's interpretation of independence, and whether or not an 'expert' is an individual or an organisation will largely depend on the nature, scale and complexity of the expert's business and the circumstances of the expert's engagement, as well as the requirements of the report.

Appropriately qualified independent persons/organisations will be identified prior to selection on the basis of meeting the requirements contained within the guide produced by DPIE, **Seeking approval from the Department for the appointment of independent experts**.

6.3 Selection criteria

In selecting an appropriate independent expert, the following requirements set forth from DPIE will be adhered to;

1. The independent expert will be a member of a relevant professional body
2. not have a close relationship with the proponent/contractor
3. not have any pecuniary interest
4. not accept any inducement or benefit
5. exercise their own independent, professional judgement

other items to be considered include;

1. Whether the expert has adequate resources (which may include access to appropriate third-party specialists) to perform the necessary work
2. The qualifications of the expert and whether the expert has the requisite level of technical expertise (including whether the expert meets the requirements of any relevant industry codes)

3. The experience of the expert. For example, a commissioning party may ask what comparable transactions the expert has given an opinion on and whether that experience is relevant to the current transaction
4. Whether the expert can meet the timeframe required for the report to be produced, and
5. Whether there are any independence issues

6.4 Appointment process

The process for appointing an independent person/organisation to prepare a Report for Above-Goal Reading is as follows:

1. Identify appropriately qualified independent persons/organisations.
2. Select independent person/organisation on the basis of DPIE's guideline (refer above).
3. Ensure that any pre-engagement discussions do not compromise the expert's independence. For example, these discussions should not deal with how the expert proposes to evaluate the transaction or the merits of the transaction.⁵
4. Seek written approval from the Secretary ensuring all criteria set forth in the Departments guidelines are met. Nomination and consultation with Project Company and TfNSW.
5. Before commencing work, an expert should obtain written terms of engagement⁶ from the commissioning party that:
 - (a) set out the scope and purpose of the report
 - (b) set out the facts of the proposal and relevant data
 - (c) recognise the expert's right to refuse to give an opinion or report at all if it is not given the information and explanations it requires to prepare the report
 - (d) give the expert the same access to the commissioning party's records as the auditor of the commissioning party; and
 - (e) set out the fee.
6. Ensure appointment of the independent person/organisation is prior to commencement of operation, or at some time prior to preparation of the report with agreement of the Secretary.

The process for appointing an independent person/organisation to prepare the Report on Above-Goal Reading is as follows:

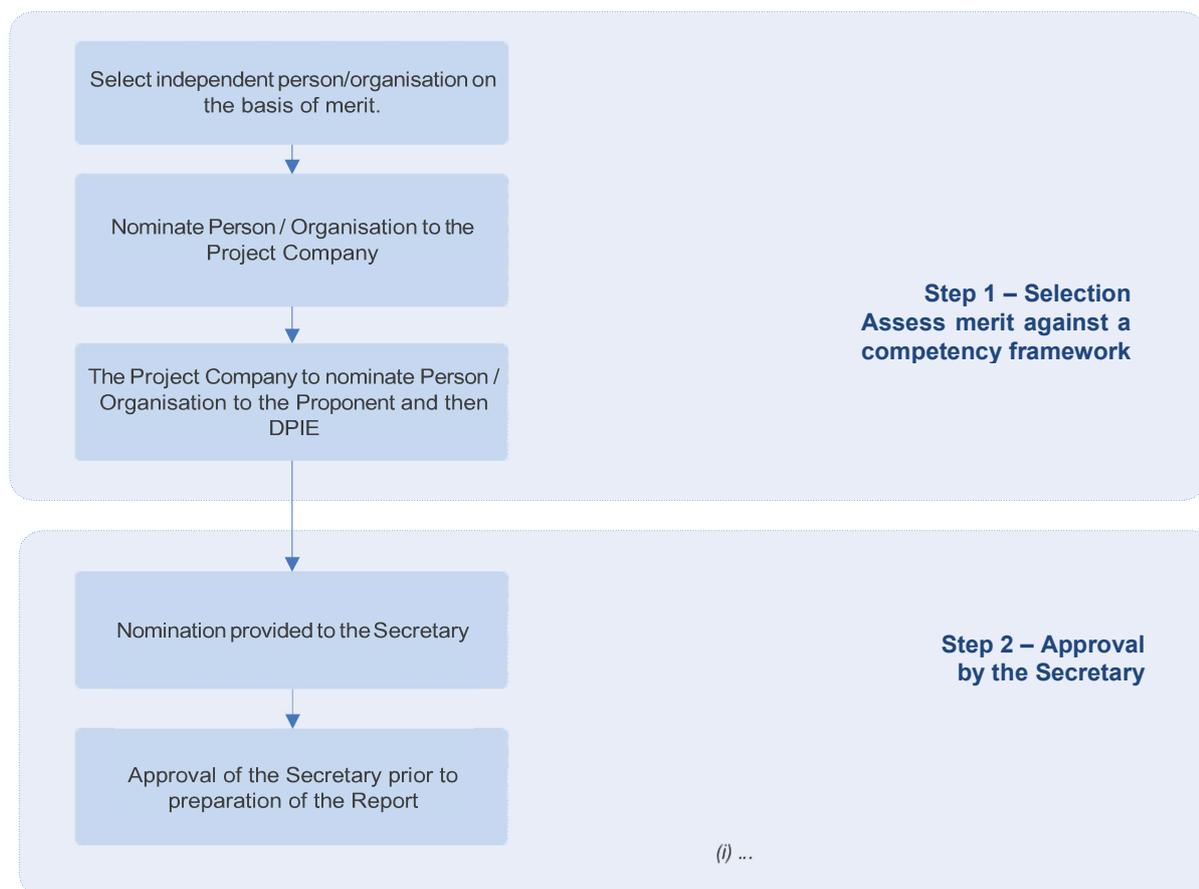


Figure 6 - Process of Appointment

The independent person or organisation shall not prepare a Report on Above-Goal Recording until approval has been received for their appointment by the Secretary.

It is noted where the Secretary's approval or agreement is required under a condition of this approval, the Secretary will endeavour to provide a response within one month of receiving an approval or agreement request. The Secretary may ask for additional information if the approval or agreement request is considered incomplete. When further information is requested, the time taken for the Proponent to respond in writing will be added to the one-month period. The Secretary may ask for additional information where a document is required to be submitted to the Secretary and the document is considered incomplete or not fully addressing the requirements of a condition.

It is unknown if or when the requirement to prepare a Notification of Above-Goal Recording and subsequent Report on Above-Goal Recording could be triggered once the project becomes operational. Given the timeframes involved to receive approval from the Secretary as outlined above, the independent person/organisation will be appointed prior to project operation. This will ensure the Report on Above-Goal Recording can be submitted to the Secretary within 20 working days of any Notification of Above-Goal Recording if ambient monitoring of air pollutants records an exceedance of the goals in CoA E6.

Once an appropriately qualified independent person/organisation has been approved by the Secretary, this independent person/organisation will prepare all Reports on Above-Goal Recordings. Should for any reason the project needs to appoint a new appropriately qualified independent person/organisation, then the appointment process outlined in this section shall be applied again.

² RG 112.7 Regulatory Guide 112 Independence of Experts (March 2011) Part (a)

³ RG 112.31 – 112.35 Regulatory Guide 112 Independence of Experts (March 2011)

⁴ RG 112.40 Regulatory Guide 112 Independence of Experts (March 2011)

⁵ RG 112.41 Regulatory Guide 112 Independence of Experts (March 2011)

⁶ RG 112.42 Regulatory Guide 112 Independence of Experts (March 2011)

Appendix A - Notification of Above-Goal Reading

Notification of above-goal reading

WestConnex M4-M5 Link

To be notified immediately to Project Company and TfNSW. Project Company is to notify DPIE, EPA and NSW Health within 24 hours of the recording.

Date		
Time (start and finish)		
Relevant location	<input type="checkbox"/> Ramsay Street, near Martin Street, Haberfield	<input type="checkbox"/> Wattle Street, Near Ramsay Street, Haberfield
	<input type="checkbox"/> Campbell Street, between Church Street and Princess Highway, St Peters	<input type="checkbox"/> St Peters Interchange, near Princess Highway
Relevant goal	<input type="checkbox"/> CO – 8 hour rolling average of 9.0 ppm (NEPM)	
	<input type="checkbox"/> NO ₂ – One hour average of 0.12 ppm (245 µg/m ³) (NEPM)	
	<input type="checkbox"/> PM ₁₀ – 24 hour average of 50 µg/m ³ (NEPM)	
	<input type="checkbox"/> PM _{2.5} – 24 hour average of 25 µg/m ³ (NEPM)	
	<input type="checkbox"/> PM ₁₀ – annual average of 25 µg/m ³ (NEPM)	
	<input type="checkbox"/> PM _{2.5} – annual average of 8 µg/m ³ (NEPM)	
Above-goal reading Detail the above-goal reading that was received		
Duration Detail the duration of the above-goal reading or event		
Nature of event Detail nature of the event that contributed to the above-goal reading		
Was the data valid? If unknown at this stage, please indicate. Refer section 5.2.1 of this Protocol.		
Was there an emergency? Refer section 3.1 of this Protocol. If this is unknown at this stage, please indicate.		
Measures employed Detail measures employed to minimise the concentration levels		
Commitment to prepare and submit a Report on Above-Goal Reading		
A Report on Above-Goal Reading will be prepared for this notification. Please note that a Report is not required in the event of an emergency.		
Person responsible for notification	Name	
	Position	
	Organisation	

Appendix B - Report on Above-Goal Reading

Report on above-goal reading WestConnex M4-M5 Link <small>To be submitted to DPIE within 20 days of the Report of Above-Goal Reading</small>	
Details of the exceedance Attach relevant Notification of Above-Goal Reading	
Was the data valid? If invalid, include any details or justifications for the invalidity	
Comparison with long term monitoring trends and background air quality data This is not required to be completed, however if available and	
Cause or major contributor of the exceedance If the cause or major contributor are not able to be determined, then known facts of what was occurring at the time should be included (eg traffic information, ventilation outlet monitoring records etc)	
Options to prevent recurrence and effectiveness of actions taken This is to include consideration of improvements to the tunnel air quality management system so as to achieve compliance with the ambient air quality goals, including but not limited to installation of the additional ventilation management facilities allowed for under condition E10, and discussion of whether those improvements are feasible and reasonable. The effectiveness of any action(s) taken in response to the exceedance shall be documented below.	
Person responsible for report	Name
	Position
	Organisation
	Date

Appendix C - Contact list

Environmental contacts

Title	Name	Phone number
I&M Contractor project representatives		
Incident and Maintenance Manager	To be provided prior to commencement of operation	To be provided prior to commencement of operation
QSE Manager	To be provided prior to commencement of operation	To be provided prior to commencement of operation
Role TBC	To be provided prior to commencement of operation	To be provided prior to commencement of operation
Project Company representatives		
Project Company Project Representative	To be provided prior to commencement of operation	To be provided prior to commencement of operation
TfNSW		
TfNSW Project Representative	To be provided prior to commencement of operation	To be provided prior to commencement of operation
Stakeholders and relevant agencies		
DPIE	Secretary of the Department Team Leader Compliance – Government Projects	Submitted via the Major Projects Planning portal compliance@planning.nsw.gov.au
Fire and Rescue NSW		000 (emergency) 1300 729 579 (non-emergency)
EPA		(02) 9995 5000 131 555
Ministry of Health / Camperdown Public Health Unit		Business hours: (02) 9515 9420 After hours: (02) 9515 6111 (ask for Public Health Officer on call)
SafeWork NSW		Phone: 131 050
Transport Management Centre		Phone: (02) 8396 1400