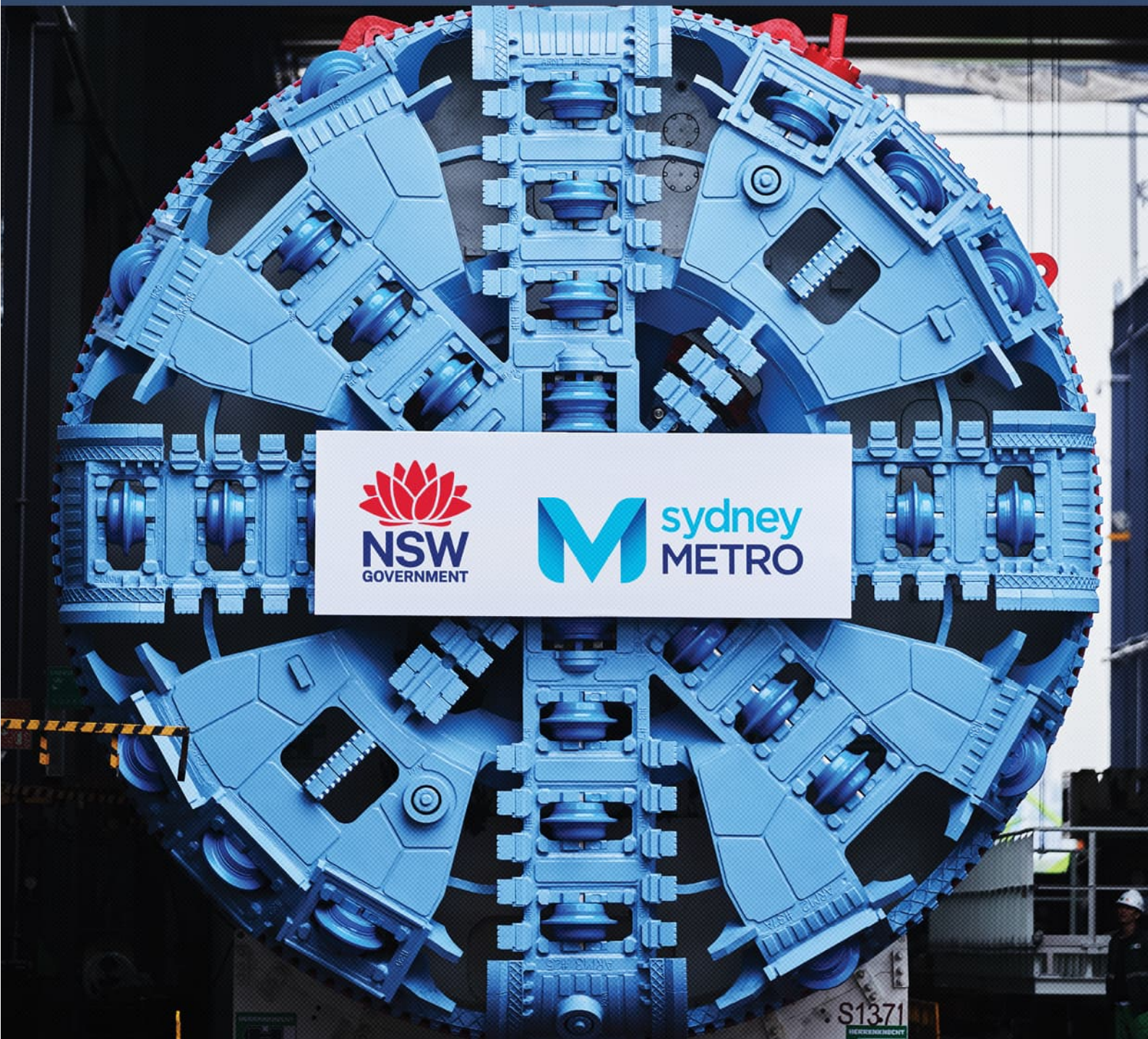
EASTERN TUNNELLING PACKAGE
John Holland CPB Contractors Ghella JV

EPL 21784 POLLUTION MONITORING REPORT

November 2025



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November 2025

Project number	7040
Document number	SMWSTETP-JCG-SWD-SW000-EN-RPT-095011

Document approval

Rev	Date	Prepared by	Reviewed by	Comments	Approved by
0	14/11/2025	[redacted]	[redacted]		[redacted]
Signature:					[redacted]

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1. Introduction

1.1. Project overview

Sydney Metro West (SMW) is a new 24-kilometre metro line with nine new stations confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont, and Hunter Street in the Sydney CBD.

The planning process for Sydney Metro West was assessed as a staged infrastructure application under section 5.20 of the *Environment Planning and Assessment Act 1979 (EP&A Act)*.

Stage 1 of the development, the Sydney Metro West Concept and major civil construction work for Sydney Metro West between Westmead and The Bays (SSI-10038 Schedule 2), was approved on 11 March 2021 and includes:

- Construction and operation of new passenger rail infrastructure between Westmead and the central business district of Sydney, including:
  - Tunnels, stations (including surrounding areas) and associated rail facilities
  - Stabling and maintenance facilities (including associated underground and overground connections to tunnels)
- Modification of existing rail infrastructure, including stations and surrounding areas
- Ancillary development.

The Eastern Tunnelling Package (ETP or this Project) is addressed under the Stage 2 Planning Approval (SSI 19238057). This Project includes all major civil construction work including station excavation (at the Pyrmont Station and Hunter Street Station (Sydney CBD) construction sites) and tunnelling between The Bays and Sydney CBD (Figure 1).

It is noted that the existing Sydney Metro West precast facility at Eastern Creek will be utilised in the delivery of the ETP Works. The facility, which was assessed by Sydney Metro in a Review of Environmental Factors (REF) and approved on 11 March 2021, is outside of the scope of the SWMP.

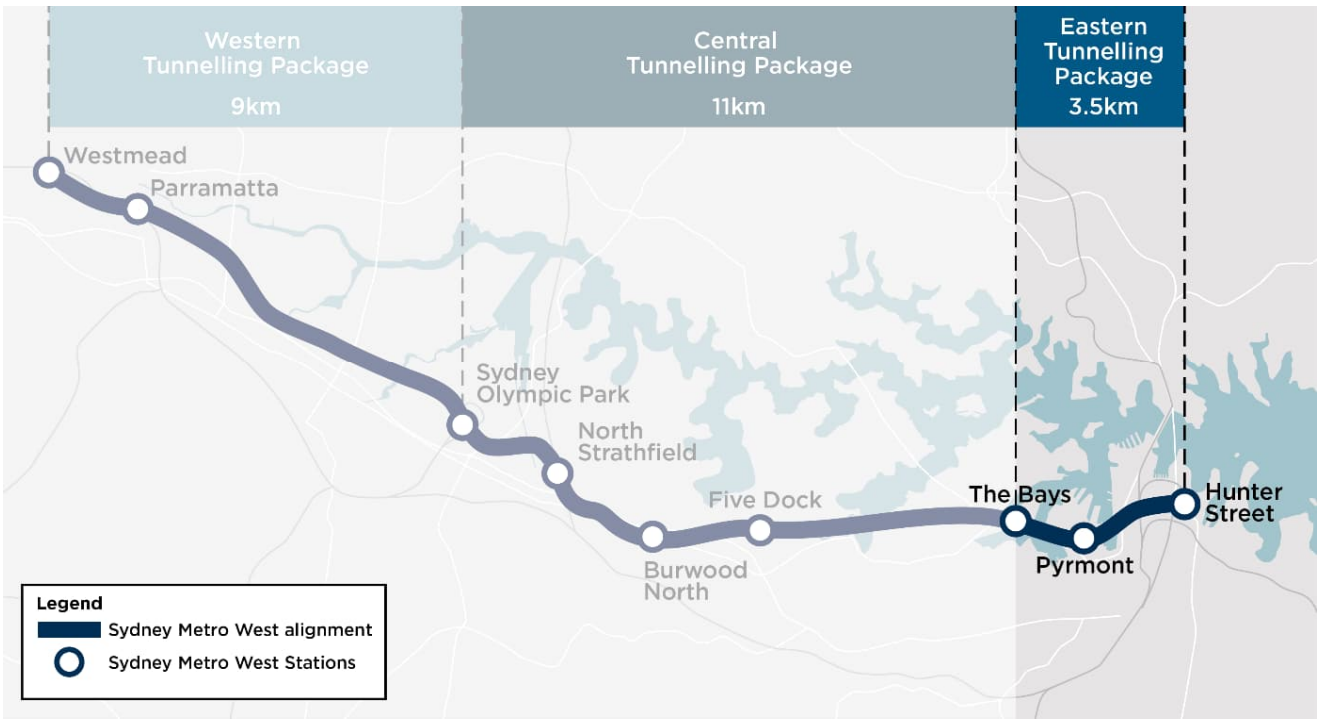

Figure 1: Sydney Metro West alignment

1.2. Project Scope

The ETP Works include design and construction of:

- Demolition of existing buildings at Pyrmont East and West shaft sites and at Hunter Street East and West shaft sites
- Tunnel Boring Machine (TBM) assembly, launch, tunnelling support from an existing shaft at The Bays
- Approximately 2.5 km twin underground eastbound and westbound bored railway tunnels between The Bays and Hunter Street and twelve cross passages spaced up to 250 metres apart
- Pyrmont Station excavation, including two shaft excavations, associated access adits and nozzle enlargements, including temporary ground support and cast in situ cavern linings
- Excavation and lining of a mined crossover cavern to allow trains to cross from one track to the other
- Hunter Street station mined cavern excavation, including:
    - Two shaft excavations, associated access adits
    - Nozzle enlargements
    - Conversion of an existing temporary connection adit at Bligh Street linking Hunter Street Station to Martin Place Station into a permanent pedestrian connection linking the stations (including temporary ground support and cast in situ linings)
- A turnback extension tunnel, of approximately 675 metres, east of the Hunter Street Station works to enable Sydney Metro train storage and to change tracks and travel direction (eastbound to westbound)
- TBM disassembly and retrieval from Hunter Street East.

1.3. Scope of this report

John Holland CPB Contactors Ghella (JCG) have been issued an Environmental Protection Licence (EPL No. 21784) from the NSW Environment Protection Authority (EPA) for the Sydney Metro West Eastern Tunnelling Package (ETP) Project.

The EPL applies to the works approved under the Infrastructure Approval SSI-19238057 associated with the delivery of the Sydney Metro West Eastern Tunnelling Package (ETP) Project.

This EPL Pollution Monitoring Report provides the results of all pollution monitoring required to be measured or monitored by the licensee of EPL 21784 as required by Section 66 of the Protection of the Environment Operations Act 1997 (POEO Act) and with reference to EPA Publication Requirements for publishing pollution monitoring data (Environment Protection Authority, 2013).

Table 1 provides a summary of the EPL 21784 details.

Table 1 Licence Details

Licence Details	
Number	21784
Copy of Licence	https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=266460&SYSUID=1&LICID=21784
Anniversary Date	16 March
Licensee	John Holland Pty Ltd
Premises	Sydney Metro West – Eastern Tunnelling Package
Scheduled Activity	Railway activities – railway infrastructure construction

2. Reporting Requirements

Under the POEO Act, holders of environment protection licences (licensees) must publish or make pollution monitoring data available to members of the public.

The POEO Act Section 66 requires:

> "66 Conditions requiring monitoring, certification or provision of information, and related offences
>
> (1) Monitoring The conditions of a licence may require—
>
> (a) monitoring by the holder of the licence of the activity or work authorised, required or controlled by the licence, including with respect to—
>
> (i) the operation or maintenance of premises or plant, and
>
> (ii) discharges from premises, and
>
> (iii) relevant ambient conditions prevailing on or outside premises,
>
> and
>
> (iv) anything required by the conditions of the licence, and
>
> (b) the provision and maintenance of appropriate measuring and recording devices for the purposes of that monitoring, and
>
> (c) the analysis, reporting and retention of monitoring data.
>
> (2) False or misleading information. A holder of a licence who supplies information, or on whose behalf information is supplied, to the appropriate regulatory authority under the conditions of the licence is guilty of an offence if the information is false or misleading in a material respect."

The primary objective of the pollution monitoring reporting requirements is that members of the public have access to the results of all pollution monitoring (which a licence specifies must be carried out) in a way that is meaningful to them. Data for the Sydney Metro West Eastern Tunnelling Package is presented on a monthly sampling period.

The monitoring data that must be published and/or made available on request is any data that is obtained as a result of a monitoring condition on a licence that relates to air, water (surface or groundwater), noise and/or land pollution. The data to be published or provided is limited to data that relates to pollutants generated, discharged or emitted from the licensed premises.

The data is provided in tabular format that is easy for the general public to understand. Tables definitively display raw data values, while graphs and charts are useful for overviews and visualisation of long-term trends. Raw data will be provided upon request.

An upfront note will be included on the licensee's website or in this report to explain why any data may appear to be missing because there is no discharge or the level of pollutant being below the detection level of the measurement instrument.

It is possible from time to time that incorrect data may be published in good faith. As soon as practicable after the licensee becomes aware that the published pollution monitoring data is incorrect or misleading, licensees must then publish a correction log to correct this data that is incorrect or misleading (refer to Error! Reference source not found.**.** Error! Reference source not found.).

Table 2 provides a summary of the pollution monitoring requirements of EPL 21784. Note, the Pyrmont water treatment plant was decommissioned during the previous reporting period and removed from the EPL, therefore no discharge occurred from this point.

Table 2 EPL 21784 Pollution Monitoring Requirements

<table>
<tr><th>EPL Condition</th><th>Requirement</th><th>Report Reference</th></tr>
<tr><td colspan="3">Weather</td></tr>
<tr><td>M5.1</td><td>The licensee must monitor and record temperature, humidity, wind direction, wind velocity and rainfall at either the project weather station, or through analysis of equivalent weather information obtained from the Australia Bureau of Meteorology. Monitoring must:
a) be representative of each catchment area;
b) commence prior to any works that may cause sediment to leave the premises; and
c) continue to be operated until soil disturbance activities cease at the premises and the site has been stabilised.</td><td>Section 3.1
Appendix A3.1</td></tr>
<tr><td colspan="3">Noise</td></tr>
<tr><td>L5.9</td><td>In undertaking any works and activities outside of standard construction hours under condition L5.8, the licensee must comply with the following:
a) Prepare a construction noise and vibration impact assessment in accordance with the Interim Construction Noise Guideline (DEC,2009) that is to include:
i. a description of the proposed works and activities outside of standard constructions hours;
ii. predictions of LAeq (15 minute) dB noise levels at noise sensitive receivers from these works and activities, where noise levels are predicted to be greater than those permitted under condition L5.3; and
iii. a monitoring plan to validate the noise predictions, based on monitoring at the boundary of representative sensitive receivers during noise generating activities that are representative of the works and activities, including during the period/s predicted to have the highest noise level impacts.
b) Undertake noise monitoring in accordance with the monitoring plan required by condition L5.9(a)(iii).</td><td>Section 3.2
Appendix B</td></tr>
<tr><td>M4.4</td><td>The licensee must undertake noise and vibration monitoring as directed by an authorised officer of the EPA. If a licensee is unable to obtain permission, they must provide the response to the EPA.</td><td>N/A</td></tr>
<tr><td colspan="3">Water</td></tr>
<tr><td>P1.1</td><td>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.
<table>
<tr><th>EPA Identi-fication no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Location Description</th></tr>
<tr><td>1</td><td>Discharge & Monitoring</td><td>Discharge & Monitoring</td><td>Discharge from the Hunter St Station WTP to Sydney Harbour</td></tr>
<tr><td>2</td><td>Discharge & monitoring</td><td>Discharge & monitoring</td><td>Discharge from the Eastern Creek Precast Facility sediment basin</td></tr>
<tr><td>6</td><td>Discharge & Monitoring</td><td>Discharge & Monitoring</td><td>Discharge from The Bays Construction WTP to White Bay</td></tr>
<tr><td>7</td><td>Discharge & Monitoring</td><td>Discharge & Monitoring</td><td>Discharge from Pyrmont East Surface Water Discharge</td></tr>
</table></td><td>Section 3.3</td></tr>
<tr><td>M2.1</td><td>For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns.</td><td>Section 3.3</td></tr>
</table>

EPL Condition	Requirement	Report Reference
M2.2		Section 3.3

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium	micrograms per litre	Monthly during discharge	Grab sample
Ammonia	micrograms per litre	Monthly during discharge	Grab sample
Arsenic (III)	micrograms per litre	Monthly during discharge	Grab sample
Cadmium	micrograms per litre	Monthly during discharge	Grab sample
Chromium (hexavalent)	micrograms per litre	Monthly during discharge	Grab sample
Cobalt	micrograms per litre	Monthly during discharge	Grab sample
Copper	micrograms per litre	Monthly during discharge	Grab sample
Iron	micrograms per litre	Monthly during discharge	Grab sample
Manganese	micrograms per litre	Monthly during discharge	Grab sample
Nitrate	micrograms per litre	Monthly during discharge	Grab sample
Nitrogen (total)	micrograms per litre	Monthly during discharge	Grab sample
Oil and Grease	Visible	Monthly during discharge	Visual Inspection
pH	pH	Daily during any discharge	Probe
Phosphorus (total)	micrograms per litre	Monthly during discharge	Grab sample
TRH C10-C14	micrograms per litre	Monthly during discharge	Grab sample
TSS	milligrams per litre	Monthly during discharge	Grab sample
Zinc	micrograms per litre	Monthly during discharge	Grab sample

POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	Visible	Special Frequency 1	Visual Inspection
pH	pH	Special Frequency 1	Probe
TSS	milligrams per litre	Special Frequency 1	Grab sample

POINT 6

Pollutant	Units of measure	Frequency	Sampling Method
Aluminium	micrograms per litre	Monthly during discharge	Grab sample
Ammonia	micrograms per litre	Monthly during discharge	Grab sample
Arsenic	micrograms per litre	Monthly during discharge	Grab sample
Cadmium	micrograms per litre	Monthly during discharge	Grab sample
Chromium (hexavalent)	micrograms per litre	Monthly during discharge	Grab sample
Cobalt	micrograms per litre	Monthly during discharge	Grab sample
Copper	micrograms per litre	Monthly during discharge	Grab sample
Iron	micrograms per litre	Monthly during discharge	Grab sample
Lead	micrograms per litre	Monthly during discharge	Grab sample
Manganese	micrograms per litre	Monthly during discharge	Grab sample
Mercury	micrograms per litre	Monthly during discharge	Grab sample
Nickel	micrograms per litre	Monthly during discharge	Grab sample
Nitrate + nitrite (oxidised nitrogen)	micrograms per litre	Monthly during discharge	Grab sample
Nitrogen (total)	micrograms per litre	Monthly during discharge	Grab sample
Oil and Grease	Visible	Monthly during discharge	Visual Inspection
pH	pH	Daily during any discharge	Probe
Phosphorus (total)	micrograms per litre	Monthly during discharge	Grab sample
TPH > C10-C40 (sum) Fraction	micrograms per litre	Monthly during discharge	Grab sample
TSS	milligrams per litre	Monthly during discharge	Grab sample
Zinc	micrograms per litre	Monthly during discharge	Grab sample

EPL Condition	Requirement	Report Reference
	POINT 7	

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	Visible	Monthly during discharge	Visual Inspection
pH	pH	Monthly during discharge	Probe
TSS	milligrams per litre	Monthly during discharge	Grab sample

3. Monitoring

Section 3 presents a summary of the monitoring programs completed in the reporting period from 16 October 2025 to 15 November 2025.

Detailed monitoring results for each program are presented in the Appendices.

3.1. Meteorological Data

Meteorological data for the Project has been mostly taken from the Observatory Hill station, but some has also been taken from Fort Denison and Sydney Airport, Bureau of Meteorology Weather Station.

The total rainfall recorded during the reporting period was 46.4mm, with 4 days exceeding 1mm and 2 days exceeding 10mm.

During the reporting period, there were 27 days where the maximum wind gust recorded was greater than 25km/h, 12 days where the maximum wind gust recorded was greater than 50km/h and 6 days where the maximum wind gust recorded was greater than 60km/h. Winds recorded during the reporting period varied in the morning and were predominantly westerly in the afternoons.

A summary of the weather observations and weather events during the reporting period of relevance to the Soil and Water Management Sub-plan and Air Quality Management Sub-Plan Trigger Action Response Plans (TARPs) are summarised in Table 3.

Detailed weather observation records for the reporting period are presented in Appendix A.

Table 3 Weather summary and trigger weather events for the reporting period

Weather Event	Observation
Minimum temperature	12.4 °C
Maximum temperature	37°C
Total rainfall	46.4 mm
Number of days with rain (>1 mm)	4 days
Number of days with rain (>10 mm)	2 days
>25 km/hr wind	27 days
>50 km/hr wind	12 days
>60 km/hr wind	6 days

3.2. Noise

Table 4 Summary of noise and vibration monitoring completed during the reporting period

Date	Monitoring Location	Method	Description
16/10/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
16/10/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)
17/10/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
17/10/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)

Date	Monitoring Location	Method	Description
17/10/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
17/10/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)
29/10/2025	16 O'Connell Street, Sydney	Sound Level Meter	Rock sawing
29/10/2025	27 O'Connell Street, Sydney	Sound Level Meter	Rock sawing
29/10/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
29/10/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)
30/10/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
30/10/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)
30/10/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
30/10/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)
03/11/2025	L2 Merivale Office (320 George Street)	Sound Level Meter	Hammering shaft (Hunter Street West)
03/11/2025	27 O'Connell Street, Sydney NSW	Sound Level Meter	Utilities disconnection
03/11/2025	16 O'Connell Street, Sydney NSW	Sound Level Meter	PFC install
03/11/2025	16 O'Connell Street, Sydney NSW	Sound Level Meter	Utilities disconnection
06/11/2025	27 O'Connell Street, Sydney NSW	Sound Level Meter	Shotcreting (Stage 1)
06/11/2025	16 O'Connell Street, Sydney NSW	Sound Level Meter	Shotcreting (Stage 1)
10/11/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	Union St blinding pour - 1x agi discharging into eastern pump, multiple idling in compound
12/11/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
12/11/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)
13/11/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
13/11/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)
13/11/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
13/11/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)
13/11/2025	63 Edward Street, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck entering site)
13/11/2025	1-9 Pyrmont Bridge Road, Pyrmont NSW	Sound Level Meter	TBM segment delivery (truck exiting site)

No noise and vibration monitoring were undertaken as a result of a direction by the EPA.

3.3. Discharge to water

Discharge water quality monitoring is a requirement of the following conditions of EPL 21784:

- L2.1 For each monitoring/discharge point, the concentration of a pollutant discharged at that point, must not exceed the concentration limits specified for that pollutant in the table
- M2.1 For each monitoring/discharge point, the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency specified opposite in the other columns.

During the reporting period sampling was undertaken from:

- EPL Point 1 – Discharge from Hunter St Station WTP
- EPL Point 6 – Discharge from The Bays Construction WTP.

Table 5 and Table 6 provide the concentration of pollutants discharged from EPL Point 1 and 6, respectively, during the reporting period.

Table 5 Concentration of pollutants discharged from Point 1 during the reporting period

Date			05/11/2025
Pollutant	**Units**	**Criteria**	**Discharge**
Aluminium	(µg/L)	900	280
Ammonia	(µg/L)	910	270
Arsenic (III)	(µg/L)	8	<1
Cadmium	(µg/L)	0.7	<0.1
Chromium (hexavalent)	(µg/L)	38	<5
Cobalt	(µg/L)	1	<1
Copper	(µg/L)	1.3	<1
Iron	(µg/L)	700	10
Manganese	(µg/L)	80	<5
Nitrate	(µg/L)	660	580
Nitrogen (total)	(µg/L)	1720	1000
Oil and Grease	Visible	Not Visible	Not Visible
pH	pH	7.0-8.5	7.6
Phosphorus (total)	(µg/L)	140	<50
TRH >C10 – C40 (sum)	(µg/L)	100	<50
TSS	(mg/L)	15	<5
Zinc	(µg/L)	15	9

Table 6 Concentration of pollutants discharged from Point 6 during the reporting period

Date			06/11/2025
Pollutant	**Units**	**Criteria**	**Discharge**
Aluminium	(µg/L)	250	<10
Ammonia	(µg/L)	910	20
Arsenic	(µg/L)	4.5	<1
Cadmium	(µg/L)	0.7	<0.1

Date			06/11/2025
Pollutant	**Units**	**Criteria**	**Discharge**
Chromium (hexavalent)	(µg/L)	20	66
Cobalt	(µg/L)	1.4	<1
Copper	(µg/L)	2	<1
Iron	(µg/L)	700	<10
Lead	(µg/L)	4.4	<1
Manganese	(µg/L)	1900	<5
Mercury	(µg/L)	0.1	<0.05
Nickel	(µg/L)	70	<1
Nitrate	(µg/L)	660	340
Nitrogen (Total)	(µg/L)	1720	2,000
Oil and Grease	Visible	Not Visible	Not visible
pH	pH	7.0-8.5	7.1*
Phosphorus (total)	(µg/L)	140	<50
TPH>C10 – C40 (sum)	(µg/L)	100	<50
TSS	(mg/L)	15	<5
Zinc	(µg/L)	15	<1

*Field test result.

Note: EPA notified of the Total Nitrogen and Hexavalent Chromium results, reference No. 43442.

4. Correction Log

It is possible from time to time for incorrect data to get published in good faith.

As soon as practicable after the licensee becomes aware that the published pollution monitoring data is incorrect or misleading, licensees must then publish a correction log to correct this data that is incorrect or misleading.

There are no matters included in the correction log for this reporting period.

Appendix A Weather Data

Table 6 Weather Observations. Temperature and Relative Humidity. Observatory Hill BOM Station.

Date	Min temperature (°C)	Max temperature (°C)	Rainfall (mm)	9am Temperature (°C)	9am relative humidity (%)	3pm Temperature (°C)	3pm relative humidity (%)
16/10/2025	16.1	27.1	0	18.4	86	25.3	66
17/10/2025	18.4	32.8	0	27.1	50	32.7	37
18/10/2025	15.7	23.6	0.6	18.8	71	21.7	55
19/10/2025	15.7	25.5	0	19.4	68	24.2	56
20/10/2025	17.6	36	0	20.8	69	35.2	25
21/10/2025	17.7	24.6	0	20.2	66	22.2	58
22/10/2025	18.9	37	0	21.3	81	36.6	24
23/10/2025	17.1	23.4	0	19.7	47	21.4	55
24/10/2025	17.5	24.9	0	20.3	65	22.9	55
25/10/2025	14.6	24.6	0	18.2	64	22.4	63
26/10/2025	16.8	26	0	20.9	52	22.9	56
27/10/2025	17.4	25.9	0.6	20.6	50	20.3	59
28/10/2025	12.9	17.9	0.2	15	48	16.4	43
29/10/2025	12.4	17.4	4.6	13.9	96	16.6	95
30/10/2025	13.9	24.5	17.8	17.3	88	23	64
31/10/2025	15.3	24.9	0.4	19.5	83	24.2	61
1/11/2025	16.4	22.7	11.4	18.3	86	21.9	77
2/11/2025	18.1	25	1	18.3	89	23.9	70
3/11/2025	17.9	25.2	0	20.7	90	24.3	77
4/11/2025	17.3	23	8.4	19.9	52	22.1	34
5/11/2025	13.9	27.1	0	17.8	45	26.5	24
6/11/2025	13.6	25.2	0	18.9	54	24.4	37
7/11/2025	18.2	24.7	0	20.7	72	23.6	64
8/11/2025	20	30.3	0	24	59	27.6	57
9/11/2025	16.2	22.2	0.4	18	48	21.2	50
10/11/2025	14.7	23.6	0	19	56	22.5	54
11/11/2025	14.5	nd	0	19.1	68	nd	nd
12/11/2025	11.4	22.2	0	15.5	35	20.8	33
13/11/2025	12.7	26.3	0	17.8	55	24.1	44
14/11/2025	17.3	nd	nd	19	71	nd	nd

Note: nd = no data available

Table 7 Wind Observations. Observatory Hill BOM Station.

Date	Direction of max wind gust	Speed of max wind gust (km/h)	Time of max wind gust	9am wind direction	9am wind speed (km/h)	3pm wind direction	3pm wind speed (km/h)
16/10/2025	NE	43	15:19	ENE	2	ENE	17
17/10/2025	S	65	17:02	NNW	24	NNE	17
18/10/2025	E	33	15:42	SW	9	ESE	19
19/10/2025	NNE	54	20:34	NNW	13	NE	28
20/10/2025	SSW	57	20:38	NNW	7	E	15
21/10/2025	SSE	44	2:13	SE	13	ESE	20
22/10/2025	NW	80	14:10	W	9	NW	30
23/10/2025	SSW	50	5:00	S	13	ESE	22
24/10/2025	SSE	52	14:27	W	13	SSE	33
25/10/2025	NE	37	14:14	N	11	NE	19
26/10/2025	NW	61	16:45	WNW	7	NW	9
27/10/2025	SSE	67	14:25	WSW	22	SSE	43
28/10/2025	SSE	52	0:39	SE	15	SE	11
29/10/2025	E	28	22:47	W	9	E	13
30/10/2025	ESE	26	12:55	WNW	9	ESE	19
31/10/2025	NE	39	15:34	NNE	4	ENE	20
1/11/2025	W	50	2:51	NNW	6	WSW	9
2/11/2025	SSW	20	23:01	WNW	13	ESE	15
3/11/2025	NW	63	17:39	N	9	ESE	19
4/11/2025	WSW	61	14:34	NW	20	WNW	35
5/11/2025	NNW	39	2:10	W	17	WNW	9
6/11/2025	NE	46	18:05	WNW	15	ENE	26
7/11/2025	NNE	44	18:37	N	11	ESE	7
8/11/2025	S	52	20:18	SE	4	NE	19
9/11/2025	WSW	54	7:05	W	30	SSE	30
10/11/2025	ENE	44	15:37	W	11	E	30
11/11/2025	WSW	nd	nd	WNW	19	nd	nd
12/11/2025	SSW	39	23:06	SW	13	E	22
13/11/2025	ENE	35	13:14	W	11	E	24
14/11/2025	nd	nd	nd	S	20	nd	nd

Note: nd = no data available

Appendix B Noise Monitoring Results

Table 8 Noise Monitoring Results

Date	Time	Works Period	Construction Activity	Monitoring Location	Activity Location	NML (dBA)	Predicted* (dBA)	Recorded Leq (dBA)	LAmax	Exceedance of Predicted (dBA)	Exceedance of Predicted	Comments
Attended noise monitoring												
16/10/2025	22:27	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	69.4	-0.6	No	TBM segment delivery truck within predicted noise levels.
16/10/2025	22:43	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	81.3	3.3	Yes	Traffic and pedestrians were the dominant noise source during this reading.
17/10/2025	01:10	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	71	1	No	TBM segment delivery truck within acceptable range (1-2dB) of predicted noise levels.
17/10/2025	01:26	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	70	-8	No	TBM segment delivery truck within predicted noise levels.
17/10/2025	05:50	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	71.3	1.3	No	TBM segment delivery truck within acceptable range (1-2dB) of predicted noise levels.
17/10/2025	06:06	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	72.1	-5.9	No	TBM segment delivery truck within predicted noise levels.
29/10/2025	21:15	Evening	Rock sawing	16 O'Connell Street, Sydney	Hunter Street (East)	75	72	65.6	81.7	-6.4	No	TBM segment delivery truck within predicted noise levels.
29/10/2025	21:35	Evening	Rock sawing	27 O'Connell Street, Sydney	Hunter Street (East)	71	56	64.6	77.3	8.6	Yes	Activity reading above predicted Leq but below NML therefore considered compliant with L5.3.
29/10/2025	23:13	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	69.0	-1	No	TBM segment delivery truck within predicted noise levels.
29/10/2025	23:40	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	74.2	-3.8	No	TBM segment delivery truck within predicted noise levels.
30/10/2025	1:06	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	64.8	-5.2	No	TBM segment delivery truck within predicted noise levels.
30/10/2025	1:27	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	75.8	-2.2	No	TBM segment delivery truck within predicted noise levels.
30/10/2025	5:18	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	79.8	9.8	Yes	Traffic and pedestrians contributed to the noise level during this reading (1 minute duration).

Date	Time	Works Period	Construction Activity	Monitoring Location	Activity Location	NML (dBA)	Predicted* (dBA)	Recorded Leq (dBA)	LAmax	Exceedance of Predicted (dBA)	Exceedance of Predicted	Comments
30/10/2025	5:42	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	73.4	-4.6	No	TBM segment delivery truck within predicted noise levels.
03/11/2025	09:41	Standard	Hammering shaft (Hunter Street west)	L2 Merivale Office (320 George Street)	Hunter Street (West)	71	N/A	61.9	70.6	N/A	N/A	D39 validation monitoring. Predicted is N/A as target noise levels is to be less than NML (-8.1dB).
03/11/2025	20:40	Evening	Utilities disconnection	27 O'Connell Street, Sydney	Hunter Street (East)	65	82	71.7	82.2	-10.3	No	Construction activity within predicted noise level.
03/11/2025	22:50	Night	PFC install	16 O'Connell Street, Sydney	Hunter Street (East)	77	56	61.5	70.5	5.5	Yes	Construction noise exceeded predicted levels however results are below the NML therefore can be considered compliant with L5.3.
03/11/2025	23:10	Night	Utilities disconnection	16 O'Connell Street, Sydney	Hunter Street (East)	67	76	63.5	77.1	-12.5	No	Construction activity within predicted noise level.
06/11/2025	20:50	Evening	Shotcreting (Stage 1)	27 O'Connell Street, Sydney	Hunter Street (East)	75	72	67.9	91.3	-4.1	No	Construction activity within predicted noise level.
06/11/2025	21:10	Evening	Shotcreting (Stage 1)	16 O'Connell Street, Sydney	Hunter Street (East)	71	66	66.7	84.6	0.7	No	Construction activity within predicted noise level.
10/11/2025	15:33	Standard	Union St blinding pour - 1x agi discharging into eastern pump multiple idling in compound	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (West)	62	74	68.9	84.6	-5.1	No	Construction activity within predicted noise level.
12/11/2025	22:10	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	69	-1	No	TBM segment delivery truck within predicted noise levels.
12/11/2025	22:25	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	74.5	-3.5	No	TBM segment delivery truck within predicted noise levels.
13/11/2025	02:30	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	70	0	No	TBM segment delivery truck within predicted noise levels.
13/11/2025	02:45	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	71	-7	No	TBM segment delivery truck within predicted noise levels.
13/11/2025	02:57	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	71	1	No	TBM segment delivery truck within acceptable range (1-2dB) of predicted noise levels.
13/11/2025	03:03	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	78	0	No	TBM segment delivery truck within predicted noise levels.
13/11/2025	05:20	Night	TBM segment delivery (truck entering site)	63 Edward Street, Pyrmont	Pyrmont Street (East)	50	70	N/A	68.8	-1.2	No	TBM segment delivery truck within predicted noise levels.

Date	Time	Works Period	Construction Activity	Monitoring Location	Activity Location	NML (dBA)	Predicted* (dBA)	Recorded Leq (dBA)	LAmax	Exceedance of Predicted (dBA)	Exceedance of Predicted	Comments
13/11/2025	05:43	Night	TBM segment delivery (truck exiting site)	1-9 Pyrmont Bridge Road, Pyrmont	Pyrmont Street (East)	51	78	N/A	74.1	-3.9	No	TBM segment delivery truck within predicted noise levels.

*Predicted noise level as per respective DNVIS

Note: Predicted LAmax listed for *TBM Segment Delivery* monitoring, hence “N/A” in Recorded Leq (dBA) column.

Table 9 Current location of all real time noise and vibration monitors

Date	Time	Construction Activity	Activity location	Monitoring location	NML (dBA)*	Predicted* (dBA)	* Recorded Leq, 15min (dBA)	* LAmax	* Exceedance of Predicted (dBA)	Exceedance of Predicted *	Comments
+Real time noise and vibration monitoring											
	Continuous	Construction – Noise	Pyrmont	1-5 Hardwood Ln	*	*	*	*	*	*	
	Continuous	Construction – Noise	Pyrmont	69 Edward Street, Pyrmont, 2009	*	*	*	*	*	*	
	Continuous	Construction – Noise	Pyrmont	Site Hoarding on Paternoster Row	*	*	*	*	*	*	
	Continuous	Construction – Noise	Hunter Street	10 Hunter St	*	*	*	*	*	*	
	Continuous	Construction – Noise	Hunter Street	The Ivy (Level 2 Office Printer Room)	*	*	*	*	*	*	
	Continuous	Construction – Noise	Hunter Street	The Radisson Blu Plaza Hotel (Level 1) 27 O'Connell Street, Sydney, 2000	*	*	*	*	*	*	
	Continuous	Construction – Noise	Hunter Street	Hunter East (site)	*	*	*	*	*	*	
	Continuous	Construction – Noise	Hunter Street	Hunter West (site)	*	*	*	*	*	*	
	Continuous	Construction – Noise	The Bays	Back of WTP / Haul road	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Pyrmont	28 Paternoster Row, Pyrmont, 2009	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Pyrmont	Maritime Museum (1)	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Pyrmont	Maritime Museum (2)	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Hunter Street	25 Bligh Street	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Hunter Street	The Ivy (Basement)	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Hunter Street	The Skinners Hotel (Level 3 South)	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Hunter Street	16 O'Connell Street	*	*	*	*	*	*	

Date	Time	Construction Activity	Activity location	Monitoring location	NML (dBA)*	Predicted* (dBA)	* Recorded Leq, 15min (dBA)	* LAmax	* Exceedance of Predicted (dBA)	Exceedance of Predicted *	Comments
+Real time noise and vibration monitoring											
	Continuous	Construction – Vibration	Hunter Street	NIB Dental (27 Hunter St)	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Hunter Street	109 Pitt Street	*	*	*	*	*	*	
	Continuous	Construction – Vibration	Hunter Street	Arcade Bar	*	*	*	*	*	*	