

EPL 21695

Pollution Monitoring Report

Western Sydney Airport – Surface and Civil Alignment Works (SCAW)

Project Name	Sydney Metro – Western Sydney Airport, Surface and Civil Alignment Works
Project Number	N81150
Revision	A

Distribution and Authorisation

Document Control

The CPBUI JV Environment Manager is responsible for ensuring this report is reviewed and approved. The Environment and/or Community Engagement Manager is responsible for updating this report, as required.

Amendments

The implementation of this report is under the authority of the CPBUI Delegated Authority Matrix. All Contract personnel will perform their duties in accordance with this Plan, supporting plans, and related procedures.

Revision Details

Rev.	Details
A	First Draft

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Part 1 Overview

1. Introduction

1.1. Project Background

The SCAW Project will be undertaken on Darug Country and will form part of the future Western Parkland City. The Project involves the construction and operation of a new 23km metro rail line that extends from the existing Sydney Trains suburban T1 western line (at St Marys) in the north to the Aerotropolis (at Bringelly) in the south. The alignment includes a combination of tunnels and civil structures, including viaducts, bridges, and surface and open-cut troughs between the two tunnel sections. The Project also includes six new metro stations, and a stabling and maintenance facility and operational control centre at Orchard Hills. The SCAW package is the second major contract package to be procured for the Project. The successful and timely completion of the SCAW package is critical to the subsequent construction activities and ultimate completion of the entire Project.

The Sydney Metro Western Sydney Airport will become the transport spine for Greater Western Sydney, connecting communities and travellers with the new Western Sydney International (Nancy-Bird Walton) Airport (referred to as Western Sydney International) and the growing region.

1.2. Project description

The Project forms part of the broader Sydney Metro network. It involves the construction and operation of a 23km new metro rail line that extends from the existing Sydney Trains suburban T1 Western Line (at St Marys) in the North and the Aerotropolis (at Bringelly) in the South. The alignment includes a combination of tunnels and civil structures, including viaduct, bridges, surface and open-cut troughs between the two tunnel sections (Figure 1).

1.2.1. SCAW scope of works

The scope for the SCAW package includes approximately 10.6km of alignment up to the underside of track formation from Orchard Hills to the Western Sydney International (WSI) airport. This includes approximately:

- 3.6 kilometre of viaduct
 - 400 metres of viaduct over Blaxland Creek
 - 660 metres of viaduct over the Patons Lane area and un-named creek
 - 2.5km of viaduct in the Luddenham Road area including across the Warragamba pipeline, at Luddenham Station, across Luddenham Road and across Cosgrove Creek
- 205 metres of bridges
 - An over rail bridge, approximately 180m long, over the proposed M12 Motorway
 - An over rail bridge, approximately 25m long, over the drainage swale on the WSI airport site
- 6.9km of at-grade alignment
 - 600m at Orchard Hills, south of Lansdowne Road
 - 1.6km alongside the stabling maintenance facility in Orchard Hills
 - 900m to the north of the Warragamba pipelines
 - 1.1km north of the proposed M12 motorway
 - 1.4km south of the proposed M12 Motorway on Elizabeth Drive
 - 1.3km within the Airport site from the northern boundary to the Airport Business Park Station
- Temporary and permanent access roads.

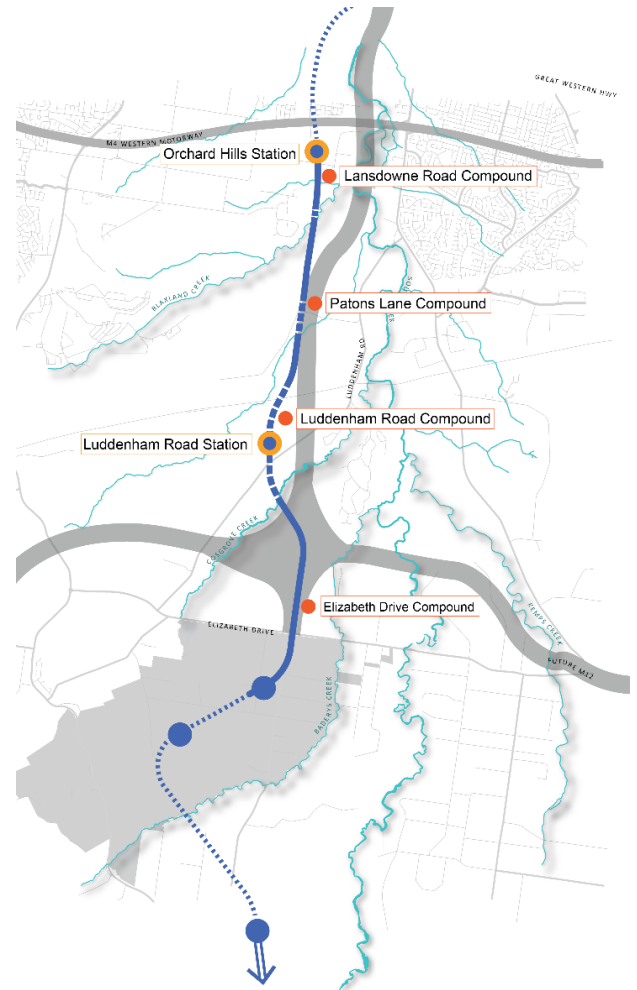


Figure 1 – Overview of the SCAW Project

Part 2 – Scope of this report

CPB Contractors PTY were issued an Environmental Protection Licence (EPL 21695) from the NSW Environment Protection Authority (EPA) on 19 August 2022 under Schedule 1 of the Protection of the Environment Operations Act 1997 (POEO Act) for the Sydney Metro Western Sydney Airport SCAW Package.

The EPL applies to the works approved under the Infrastructure Approval SSI-10051 associated with the delivery of the SCAW Package

This EPL Pollution Monitoring Report provides the results of all pollution monitoring required to be measured or monitored by the licensee of EPL 21695 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 2-1 provides a summary of the pollution monitoring requirements of EPL 21695.

Table 2-1 Licence Details

Licence Details	
Number	21695
Anniversary Date	19 August
Licensee	CPB Contractors Pty Ltd
Premises	Sydney Metro Western Sydney Airport Package Footprint
Scheduled Activity	Railway activities – railway infrastructure construction

Part 3 – 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.

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’s possible from time to time that incorrect data may 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.

Table 3-2 provides a summary of the pollution monitoring requirements of EPL21695

Table 3-2 EPL 21695 Pollution Monitoring Requirements

EPL Condition	Requirement	Report Reference
M5.1	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 Australian Bureau of Meteorology.	Section 4.1
L5.6	Monitoring to validate the noise predictions for works undertaken outside of the standard construction hours as per the construction noise impact assessment	Section 4.2 Appendix A2
M2.2	Discharge of pollutants to water from nominated discharge points	Section 4.3
M4.4	Noise and vibration monitoring as directed by an authorised officer of the EPA	Section 4.2 Appendix A2
M7.6	Noise and vibration monitoring of noise and vibration complaints	Section 4.2 Appendix A2
L2.5	Discharge from sediment basins solely as a result of rainfall measured at the premise the rainfall depth value	Section 4.3

Part 4 – Monitoring

Section 4 presents summaries of the monitoring programs completed in the reporting period for July 2024.

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

4.1 Weather Monitoring

EPL Condition M5.1 requires CPB to collect and store meteorological data. Meteorological observations are captured using the Bureau of Meteorology Weather Stations - Badgerys Creek (station 067108) and Penrith (station 067113). Meteorological data for the month of July can be found within Appendix A1.

4.2 Noise and Vibration

Noise and vibration monitoring is required by the following EPL conditions

- M1 Monitoring Records
- M4 Environmental Monitoring

Noise and Vibration monitoring is conducted in accordance with the project Construction Noise and Vibration Monitoring Program.

Table 4-3 provides a summary of noise and vibration monitoring events completed in July of 2024. Detailed monitoring results are presented in Appendix A2.

Table 4-3 Summary of Noise and Vibration Monitoring July 2024

Date	Monitoring Location(s)	Monitoring Event(s)
23/07/2024	443-457 Luddenham Road	11

4.3 Discharge to Water

Discharge monitoring is required by the following EPL conditions

- M1 Monitoring Records
- M2 Requirement to Monitor Concentration of Pollutants Discharged

Discharges are conducted in accordance with the project Soil and Water Management Sub-Plan and Construction Discharge Impact Assessment.

Table 4-4 provides a summary of all discharge events completed in July of 2024.

Table 4-4 Summary of Discharges July 2024

Date	Discharge Location(s)	EPL Discharge Point(s)	Discharge Event(s)
July 2024	Elizabeth Drive Site	EPA 1	0
July 2024	Southern Side Cosgroves Creek	EPA 2	0
July 2024	Luddenham South Site	EPA 3	0
July 2024	Luddenham Station Site	EPA 4	0
July 2024	Stabling and Maintenance Facility	EPA 5	1
July 2024	Blaxland Creek	EPA 6	3
July 2024	Samuel Marsden Drive Site	EPA 7	0
July 2024	Defence Basin	EPA 8	2

Part 5 - Correction Log

It's possible from time to time that incorrect data may 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.

The following corrections have been identified within the reporting period:

Nil

Appendices

Appendix A1 – Weather Monitoring

Table A1-1 Weather Monitoring Results Penrith Station July 2024

Penrith, New South Wales July 2024 Daily Weather Observations



Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C					km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Mo	6.1	15.2	2.6			SW	26	10:50	10.5	70		ESE	4		14.8	60		S	9	
2	Tu	9.2	16.3	0.4			SSE	31	13:19	12.2	75		SSW	11		14.3	72		S	11	
3	We	9.7	16.9	1.8			S	33	11:40	12.3	78		SSW	7		14.9	64		SSW	11	
4	Th	11.0	17.3	0.8			SE	31	11:40	13.8	81		SSW	11		16.4	54		SE	15	
5	Fr	11.3	16.4	5.8			SSE	31	15:19	13.7	84		SSW	9		15.1	80		SSE	11	
6	Sa	11.2	17.2	1.2			SE	28	17:00	13.2	69		S	9		15.9	56		SE	13	
7	Su	9.2	17.8	0			ENE	11	13:12	12.1	87		NNE	2		15.9	69		NW	4	
8	Mo	12.0	16.8	0.4			ENE	15	13:31	13.0	96			Calm		15.9	76		NNE	7	
9	Tu	11.2	20.1	2.4			W	13	17:59	12.3	99			Calm		19.2	68		E	4	
10	We	5.6	18.5	0.2			W	13	20:15	10.8	93		NNW	2		18.1	60		NNW	4	
11	Th	5.2	15.4	0			NNW	7	11:23	9.5	88			Calm		14.7	65		NW	4	
12	Fr	6.3	18.7	0			S	19	23:59	8.9	99		NNE	4		18.0	41		NW	6	
13	Sa	8.8	16.9	0			S	30	11:54	14.2	57		S	7		16.3	48		SSW	6	
14	Su	3.0	17.3	0			WNW	31	15:00	7.7	94			Calm		16.3	41		WNW	19	
15	Mo	3.6	14.9	0			W	54	12:08	11.5	48		SW	9		14.4	39		W	20	
16	Tu	8.8	16.4	0			W	35	15:07	12.6	52		NNW	15		15.1	46		WSW	20	
17	We	4.9	19.2	0			SW	35	11:20	11.4	77		NNE	6		18.0	44		WSW	17	
18	Th	5.9	18.5	0			WSW	30	18:04	11.3	78			Calm		17.8	38		SW	15	
19	Fr	2.0	16.3	0			NNW	30	17:02	7.5	75			Calm		14.6	49		NNW	6	
20	Sa	5.9	17.0	0			NW	80	11:41	15.7	50		NW	22		14.9	40		W	26	
21	Su	7.0	18.8	0			W	52	00:34	13.6	47		ESE	2		17.9	27		SW	17	
22	Mo	2.7	18.1	0			N	13	15:46	7.8	86		NNW	2		17.4	54		NW	2	
23	Tu	3.0	19.3	0			N	15	15:14	8.4	88		SSE	2		19.0	40		NNE	9	
24	We	3.3	18.9	0			SW	9	13:27	6.8	99			Calm		18.5	51		SW	4	
25	Th	6.2	24.1	0			N	41	14:11	9.7	92			Calm		21.6	42		N	24	
26	Fr	9.4	21.3	7.2			WSW	20	02:39	13.2	93		SSE	2		20.3	43		SE	9	
27	Sa	5.7	14.8	5.6			WNW	19	20:31	8.2	97		SSW	2		14.4	84		WSW	2	
28	Su	5.8	14.4	0.6			W	63	10:03	11.2	56		W	11		14.0	36		WSW	19	
29	Mo	5.9	15.9	0			SSW	50	11:56	10.6	45		SW	20		15.7	37		SSW	13	
30	Tu	5.1	16.9	0			SSW	39	09:20	12.2	53		SSW	17		16.2	44		S	17	
31	We	8.4	16.7	0			S	37	10:08	12.8	55		SSW	17		16.1	47		SW	13	
Statistics for July 2024																					
Mean		6.9	17.5							11.2	76			6		16.5	52			11	
Lowest		2.0	14.4							6.8	45			Calm		14.0	27		#	2	
Highest		12.0	24.1	7.2			NW	80		15.7	99		NW	22		21.6	84		W	26	
Total				29.0																	

Observations were drawn from Penrith Lakes AWS (station 067113)

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Appendix A1 – Weather Monitoring

Table A1-2 Weather Monitoring Results Badgerys Creek Station July 2024

Badgerys Creek, New South Wales July 2024 Daily Weather Observations



Date	Day	Temps		Rain	Evap	Sun	Max wind gust			9am					3pm						
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C					km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Mo	5.2	15.3	3.2			SW	28	10:59	8.6	77		WSW	13	1025.0	14.4	57		SSE	13	1024.3
2	Tu	7.9	16.1	3.4			SSW	35	11:01	12.7	74		S	17	1031.0	14.0	65		S	11	1030.1
3	We	9.6	16.6	1.6			S	35	12:54	12.5	79		SW	13	1034.8	14.1	67		S	22	1033.7
4	Th	10.3	17.0	3.6			S	33	11:25	11.5	97		SW	13	1035.3	15.9	56		SSE	13	1034.0
5	Fr	9.7	16.9	7.0			SE	28	14:47	14.0	82		S	11	1038.4	13.8	80		SSE	11	1037.5
6	Sa	10.3	17.3	0			SE	24	16:59	12.7	71		WSW	9	1039.6	16.4	52		SSE	7	1036.6
7	Su	9.3	17.8	0.4			ESE	17	15:08	9.8	91		SW	9	1034.7	15.6	74		E	6	1031.1
8	Mo	11.6	16.8	0.4			NE	19	14:13	12.0	99		SW	6	1027.5	14.5	80		ENE	6	1022.6
9	Tu	10.4	19.8	2.8			W	13	19:04	12.1	100		Calm		1020.6	18.7	60		NE	4	1017.9
10	We	5.6	19.5	0.2			N	15	13:02	8.4	100		WSW	4	1021.2	18.6	55		N	7	1019.7
11	Th	4.0	15.8	0			NNE	13	11:01	13.2	71		W	2	1023.2	15.2	61		NNW	2	1019.0
12	Fr	4.8	18.7	0			WSW	20	22:56	9.3	100		WSW	6	1015.2	17.5	46		WSW	11	1010.9
13	Sa	7.9	17.9	0.2			SW	31	11:40	13.7	61		SW	19	1012.3	17.1	48		SW	4	1010.3
14	Su	2.3	16.2	0			W	33	14:17	8.8	82		NE	2	1012.3	15.8	43		WSW	17	1008.9
15	Mo	3.9	14.5	0			W	48	15:13	7.2	62		WSW	6	1008.0	13.7	42		WNW	28	1005.5
16	Tu	4.8	15.1	0			WNW	37	05:11	12.6	53		WNW	19	1001.5	14.8	48		WSW	24	1000.7
17	We	5.2	18.4	0			SW	37	10:57	13.5	59		WSW	15	1006.0	17.4	48		WSW	17	1005.3
18	Th	4.5	17.7	0			W	35	12:39	10.2	87		Calm		1013.4	16.6	43		SW	20	1011.1
19	Fr	0.1	15.4	0			N	28	23:07	8.6	67		Calm		1016.1	14.2	44		NE	4	1012.4
20	Sa	6.6	16.4	0			WNW	74	12:07	12.9	59		NNW	11	1005.3	14.3	41		WNW	39	1005.0
21	Su	8.2	18.0	0			W	54	03:35	12.4	46		WSW	20	1016.4	16.1	36		W	19	1019.0
22	Mo	1.9	18.8	0			WSW	28	13:37	9.4	81		N	2	1026.5	18.1	49		WSW	11	1024.1
23	Tu	1.3	20.4	0			SW	17	12:48	3.8	99		Calm		1027.5	19.6	43		W	4	1024.5
24	We	1.8	19.3	0			NNE	19	14:28	6.8	99		Calm		1024.7	18.5	46		NNE	6	1019.8
25	Th	5.1	25.0	0			NW	43	14:01	7.6	90		N	6	1019.4	22.7	36		NW	15	1014.3
26	Fr	9.6	19.9	7.6			WSW	26	02:42	11.9	100		W	4	1020.5	19.9	41		ESE	4	1018.8
27	Sa	4.2	16.1	5.4			WSW	15	21:20	7.5	99		W	4	1021.0	15.6	80		N	4	1015.8
28	Su	5.3	13.5	1.0			WSW	61	13:27	10.1	58		W	11	1017.8	12.4	43		SW	31	1017.7
29	Mo	7.1	15.5	0			SSW	46	13:06	9.8	47		SW	28	1024.6	14.6	37		SSW	20	1025.4
30	Tu	5.0	16.7	0			SSW	39	10:25	10.6	58		SW	20	1033.6	15.7	42		SSW	20	1031.8
31	We	6.8	17.1	0			SW	39	11:13	11.8	57		SW	26	1034.8	15.8	45		SSW	24	1032.9
Statistics for July 2024																					
Mean		6.1	17.4							10.5	77			9	1022.2	16.2	51			13	1020.0
Lowest		0.1	13.5							3.8	46			Calm	1001.5	12.4	36		NNW	2	1000.7
Highest		11.6	25.0	7.6			WNW	74		14.0	100		SW	28	1039.6	22.7	80		WNW	39	1037.5
Total				36.8																	

Observations were drawn from Badgerys Creek AWS (station 067108)

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Appendix A2 – Noise Monitoring

OOH noise monitoring									
date	time	Location	Period	Construction Activity/Location	NCA	DNVIS Predicted	laeq	la10	la90
23/07/2024	18:00	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	36.1	37.0	32.3
23/07/2024	18:15	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	33.7	34.8	32.1
23/07/2024	18:30	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	36.7	37.4	33.2
23/07/2024	18:45	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	34.7	35.0	32.8
23/07/2024	19:00	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	35.2	37.6	32.8
23/07/2024	19:15	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	35.6	37.7	33.3
23/07/2024	19:30	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	35.6	36.5	32.9
23/07/2024	19:45	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	34.0	35.6	31.8
23/07/2024	20:00	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	35.5	35.4	32.4
23/07/2024	20:15	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	37.2	35.7	32.7
23/07/2024	20:30	443-457 Luddenham Road	Evening	Warragamba Pipeline Parapet pre installation	10	47	34.3	35.5	32.6

Appendix A3 – Discharge to Water

Table A3-1 Discharge to Water Monitoring Results July 2024

Date of Discharge	EPL Discharge Point(s)	pH	NTU	Visible Oil/Grease
5/07/2024	EPA 8	6.66	33.4	None
9/07/2024	EPA 6	7.43	29.5	None
9/07/2024	EPA 5	8.33	14.3	None
9/07/2024	EPA 8	7.69	40.6	None
9/07/2024	EPA 6	7.35	22.2	None
29/07/2024	EPA 6	7.63	27.3	None