

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.

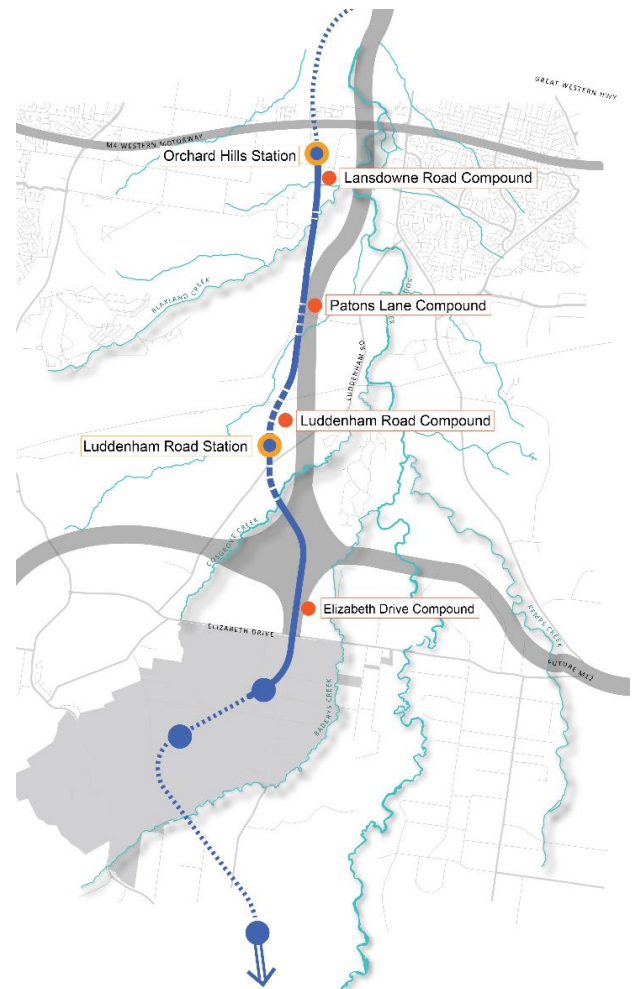


Figure 1 – Overview of the SCAW Project

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 September 2023.

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 September 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 4-2 provides a summary of noise and vibration monitoring events completed in September of 2023. Detailed monitoring results are presented in Appendix A2.

Table 4-3 Summary of Noise and Vibration Monitoring September 2023

Date	Monitoring Location(s)	Monitoring Event(s)
September 2023	68 Solander Dr St Clair	2
	8 Bordeaux Pl Orchard Hills	2
	246 Luddenham Rd Orchard Hills	2
	27 Halmstad Blvd Luddenham	2

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 4-3 provides a summary of all discharge events completed in September of 2023 and detailed monitoring results are presented in Appendix A3.

Table 4-3 Summary of Discharges September 2023

Date	Discharge Location(s)	EPL Discharge Point(s)	Discharge Event(s)
September 2023	Elizabeth Drive Site	EPA 1	2
September 2023	Southern Side Cosgroves Creek	EPA 2	1
September 2023	Luddenham South Site	EPA 3	2
September 2023	Luddenham Station Site	EPA 4	1
September 2023	Stabling and Maintenance Facility	EPA 5	2
September 2023	Blaxland Creek	EPA 6	3
September 2023	Samuel Marsden Drive Site	EPA 7	0

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.

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

The following corrections have been identified within the reporting period.

Appendices

Appendix A1 – Weather Monitoring

Table A1-1 Weather Monitoring Results Penrith Station September 2023

Penrith, New South Wales September 2023 Daily Weather Observations



Australian Government
Bureau of Meteorology

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	Fr	6.7	20.6	0			SE	37	15:30	14.7	66		SE	2		17.7	42		ESE	20	
2	Sa	5.7	20.9	0			SW	20	08:44	14.7	57		SSW	11		20.2	38		NNE	7	
3	Su	9.5	21.8	0			E	20	16:56	15.0	73		SSE	4		21.3	39		NNE	7	
4	Mo	7.1	23.8	0			N	26	14:27	14.4	98		NNW	2		23.2	46		N	13	
5	Tu	10.6	25.1	0			SW	44	11:00	20.4	37		W	22		23.8	17		NW	28	
6	We	5.3	24.8	0.2			NE	30	15:52	13.7	60		S	4		24.1	21		NE	15	
7	Th	5.1	29.6	0			NNW	91	21:50	13.3	76		NW	4		29.1	28		N	30	
8	Fr	13.2	19.6	1.8			WSW	57	15:12	13.4	74		WSW	4		18.6	29		W	28	
9	Sa	6.0	21.1	0.2			WSW	30	12:37	14.2	41		E	4		20.6	20		SSW	4	
10	Su	3.2	20.6	0			NE	20	16:02	12.7	53		SE	4		19.5	27		SE	6	
11	Mo	4.7	21.4	0			NE	20	15:24	12.9	73		N	4		20.8	34		NE	7	
12	Tu	6.3	21.8	0			NNW	17	11:50	13.9	80		SSE	2		20.9	41		S	2	
13	We	6.2	25.4	0			E	20	16:25	15.1	65		SE	2		25.1	30		E	6	
14	Th	7.2	27.9	0			ENE	13	17:44	16.3	65		S	4		27.5	21		SSE	4	
15	Fr	8.7	32.3	0			NNE	31	15:33	16.6	69		SW	4		31.6	14		NE	20	
16	Sa	9.2	34.0	0			WNW	41	12:36	18.7	56		SW	2		33.0	15		W	15	
17	Su	12.5	33.6	0			WNW	46	13:36	22.2	40		SSE	4		32.9	11		W	15	
18	Mo	9.6	36.5	0			NNW	30	14:05	18.8	46		SW	4		36.1	11		WNW	9	
19	Tu	11.2	34.8	0			NNW	44	10:39	22.0	43		NW	6		34.3	14		NW	20	
20	We	12.7	35.2	0			NNW	65	13:35	30.5	19		N	15		34.1	12		W	35	
21	Th	12.6	25.8	0			ESE	37	14:20	21.2	30		SW	9		20.8	47		ESE	24	
22	Fr	11.8	20.9	0.4			SSW	28	07:55	15.9	54		S	15		18.0	49		ENE	15	
23	Sa	7.3	22.4	0			NE	28	11:51	16.6	59		S	4		21.6	39		ENE	9	
24	Su	9.0	23.4	0			ENE	26	17:19	17.0	60		N	4		22.7	35		N	4	
25	Mo	7.5	28.9	0			NNE	20	14:15	16.3	63		SSW	2		28.3	27		NNE	9	
26	Tu	11.7	25.2	0			SE	24	17:15	19.4	54		NW	4		23.4	51		ESE	13	
27	We	14.1	26.6	0			SE	28	16:57	19.5	76		SSW	2		25.6	41		E	4	
28	Th	14.7	23.3	4.2			S	31	05:18	16.3	98		SSW	6		22.7	60		NNE	13	
29	Fr	10.0	31.8	0.2			SE	33	16:26	16.9	94		N	4		31.1	23		ESE	4	
30	Sa	10.5	32.8	0			ENE	24	17:39	19.3	69		SSE	6		31.7	26		WSW	4	
Statistics for September 2023																					
Mean		9.0	26.4							17.1	61				5		25.3	30			13
Lowest		3.2	19.6							12.7	19		#	2		17.7	11		S	2	
Highest		14.7	36.5	4.2			NNW	91		30.5	98		W	22		36.1	60		W	35	
Total				7.0																	

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 September 2023

Badgerys Creek, New South Wales September 2023 Daily Weather Observations



Australian Government
Bureau of Meteorology

Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust					9am			3pm							
		Min	Max				Dirn	Spd km/h	Time local	Temp °C	RH %	Cld eighths	Dirn	Spd km/h	MSLP hPa	Temp °C	RH %	Cld eighths	Dirn	Spd km/h	MSLP hPa	
		°C	°C																			
1	Fr	5.8	20.3	0.2			WSW	35	11:47	14.8	61		NW	9	1020.0	17.2	44		NNW	20	1018.9	
2	Sa	5.8	20.7	0			NNE	26	15:15	13.4	57		WSW	15	1023.8	18.9	46		N	15	1019.6	
3	Su	6.8	21.0	0			N	26	16:15	14.3	70		NW	2	1022.5	20.2	36		N	7	1017.9	
4	Mo	6.6	23.6	0			ENE	24	14:14	14.6	73		N	4	1017.2	22.8	47		NNE	15	1010.4	
5	Tu	10.2	23.9	0.2			SW	52	09:39	19.4	36		SW	20	1011.2	23.1	18		SSW	13	1011.8	
6	We	3.6	24.5	0			E	30	15:07	14.4	52		NNW	4	1023.1	23.7	18		E	17	1018.6	
7	Th	3.8	29.0	0			SSE	61	22:00	14.4	64		ENE	7	1019.9	28.5	33		E	24	1012.4	
8	Fr	12.6	18.9	2.8			S	63	14:56	12.6	80		SE	11	1016.8	17.7	29		S	41	1015.1	
9	Sa	6.1	19.5	0.8			W	33	14:50	13.5	38		S	11	1025.1	18.0	24		W	20	1023.4	
10	Su	1.3	20.1	0			N	31	16:30	12.6	51		SW	7	1030.5	20.0	26		WNW	7	1027.0	
11	Mo	3.3	21.2	0			NNE	24	16:20	13.4	56		W	4	1032.5	20.3	32		E	6	1029.0	
12	Tu	5.0	21.2	0			ENE	17	11:59	14.7	66		NNE	2	1031.1	20.1	42		N	6	1027.3	
13	We	3.9	25.7	0			E	30	13:23	14.7	65		WNW	2	1029.0	24.1	34		N	15	1025.2	
14	Th	6.2	27.6	0			NNE	22	13:34	17.7	57		Calm		1029.0	26.9	22		NE	7	1025.1	
15	Fr	7.5	31.1	0			E	22	16:07	16.8	57		SE	4	1025.5	30.4	18		E	9	1020.4	
16	Sa	7.6	33.0	0			SSE	41	14:15	20.2	46		SSE	4	1022.4	32.4	17		S	20	1017.8	
17	Su	9.4	32.7	0			WSW	35	13:51	22.5	39		SW	2	1023.0	31.8	11		SW	20	1018.5	
18	Mo	9.2	35.9	0			SE	26	14:28	21.4	34		SE	6	1021.6	35.5	13		SE	17	1015.6	
19	Tu	9.4	34.3	0			SSW	43	14:03	24.3	32		SE	7	1017.4	33.3	15		S	28	1011.2	
20	We	12.7	34.7	0						28.9	21		SSE	20	1010.7	34.3	14		SSE	24	1006.0	
21	Th	12.3	24.8	0						19.9	33				1016.3	20.1	49				1016.9	
22	Fr	9.6	20.0	0.4						15.9	54				1029.8	17.1	46				1027.5	
23	Sa	6.1	21.9	0						16.5	54				1030.7	19.8	39				1027.0	
24	Su	7.3	22.4	0						17.0	58				1029.4	21.5	37				1024.4	
25	Mo	5.9		0						16.3	60				1024.1	27.6	28				1019.0	
26	Tu	10.7								21.5	49				1022.2	21.4	57				1018.8	
27	We	14.2	25.9					33	16:11	18.4	73				1020.8	23.9	48				1017.3	
28	Th	14.1	22.6					24	04:12	16.3	86				1029.4	22.2	56				1025.5	
29	Fr		31.7							18.7	75				1024.4	31.3	14				1019.7	
30	Sa	8.7	31.1				NNE	26	11:41	18.8	63		NNW	2	1023.4	30.7	28		NNE	9	1015.9	
Statistics for September 2023																						
Mean		7.8	25.7							17.3	55			6	1023.4	24.5	31			16	1019.4	
Lowest		1.3	18.9							12.6	21		Calm		1010.7	17.1	11		#	6	1006.0	
Highest		14.2	35.9	2.8			S	63		28.9	86		#	20	1032.5	35.5	57		S	41	1029.0	
Total				4.4																		

Observations were drawn from Badgerys Creek AWS (station 067108)

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Appendix A2 – Noise and Vibration Monitoring Results

Table A2-1 Noise and Vibration Monitoring Results September 2023

Date	Time	Location	NCA	NML	LAeq	L10	L90
15/09/2023	16:28	68 Solander Dr St Clair	7	57	70.1	73.5	55.9
15/09/2023	9:17	8 Bordeaux Pl Orchard Hills	8	54	45.9	49.5	43.2
15/09/2023	15:27	276 Luddenham Rd Orchard Hills	9	50	67.4	70.2	43
15/09/2023	9:58	27 Halmstad Blvd Luddenham	10	45	56.9	52	34.8
29/09/2023	14:43	68 Solander Dr St Clair	7	57	69.3	72.8	58.4
29/09/2023	14:09	8 Bordeaux Pl Orchard Hills	8	54	45.1	44.8	35.5
29/09/2023	15:29	256 Luddenham Road	9	50	66.6	70.9	42.4
29/09/2023	16:09	27 Halmstad Blvd Luddenham	10	45	48.2	51.7	35.3

Appendix A3 – Discharge to Water Monitoring Results

Table A3-1 Discharge to Water Monitoring Results September 2023

Date of Discharge	EPL Discharge Point(s)	pH	NTU	Visible Oil/Grease
1/09/2023	EPA 5	6.87	35.2	None
2/09/2023	EPA 6	6.57	45.6	none
5/09/2023	EPA 4	7.6	25.6	None
6/09/2023	EPA 3	7.34	12.3	None
6/09/2023	EPA 1	7.29	42	None
11/09/2023	EPA 6	7.58	12.4	None
12/09/2023	EPA 6	7.57	6.9	none
13/09/2023	EPA 5	7.48	28.5	none
15/09/2023	EPA 1	8.09	11.3	none
18/09/2023	EPA 3	7.97	10.6	none
18/09/2023	EPA 2	8.02	45.8	none