



EPL 21807 Monitoring Report December 2023

SMWSASSM-PLD-1NL-NL000-EV-RPT-000005

Parklife Metro D&C



Document Approval

Revision	Author	Date	Comments	Reviewed by	Approved by
00	E.Chan	9/01/2024	Initial Draft	C. Kennedy	C. Kennedy
Signature					- China



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Introduction

Background 1.1

Sydney Metro is Australia's biggest public transport program comprising four main packages of work including Metro North-West Line, Sydney Metro City and Southwest, Sydney Metro West, and Sydney Metro Western Sydney Airport (SMWSA, the Project). The SMWSA 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.

The Project involves the construction and operation of a new metro railway line around 23km in length that extends from the existing Sydney Trains suburban T1 Western Line at St Marys in the north to the new Aerotropolis Station in the south at Bringelly. The alignment includes a combination of tunnel, surface, bridges and viaduct sections, and comprises of six new metro stations between St Marys and the Aerotropolis Core precinct, as well as a stabling and maintenance facility and operational control centre to support the operation of the new metro railway line (see Figure 1).

1.1.1 Stations, Systems, Trains, Operations and Maintenance works

Parklife Metro D&C has been engaged to deliver the Stations, Systems, Trains, Operations and Maintenance (SSTOM) works. The scope of the Stations, Systems, Trains, Operations and Maintenance (SSTOM) package comprises:

- construction of the six new stations
- installation of tracks, signalling, mechanical and electrical systems
- supplying new driverless trains
- construction of stabling and maintenance facility at Orchard Hills
- operation and maintenance of the line and its assets, and
- handback of operations and maintenance at the end of term.



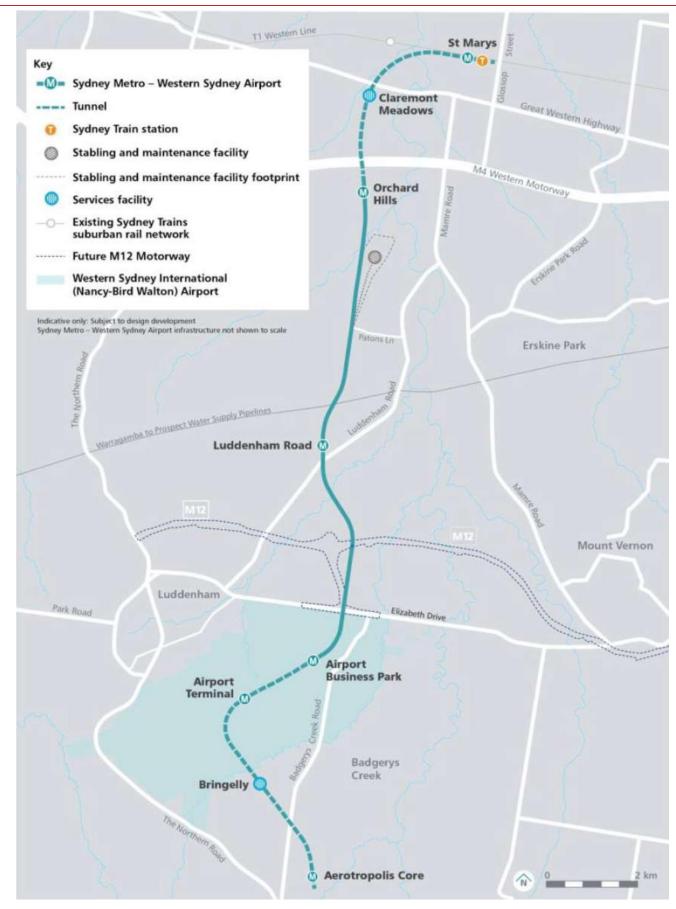


FIGURE 1 OVERVIEW OF SMWSA PROJECT



Scope of this report 1.2

Parklife Metro D&C have been issued an Environment Protection Licence (EPL No. 21807) from the NSW Environment Protection Authority (EPA) for the SMWSA SSTOM Works. The EPL applies to the works approved under the Infrastructure Approval SSI-10051 associated with the delivery of the off-airport portion of the SMWSA SSTOM Works, as detailed in Table 1. This EPL Monitoring Report provides the results of all pollution monitoring required to be measured or monitored by the licensee of EPL 21807 within the reporting period 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 LICENCE DETAILS

Licence Details	
Number	21807
Copy of Licence	Environment & Heritage POEO Licences, Application and Notice Detail (nsw.gov.au)
Anniversary Date	20-July
Licensee	WEBUILD S.P.A
Premises	SYDNEY METRO WESTERN SYDNEY AIRPORT SSTOM PACKAGE FOOTPRINT
	SYDNEY METRO WESTERN SYDNEY AIRPORT-STATIONS, SYSTEMS, TRAINS, OPERATION & MAINTENANCE PACKAGE
Scheduled Activity	Railway activities – railway infrastructure construction

Reporting requirements 1.3

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:

"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 EPL Monitoring Report 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.

This EPL Monitoring Report will provide explanations as to why data may appear to be missing, which may be due to there being 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 2 provides a summary of the monitoring requirements of EPL 21807.

TABLE 2 EPL 21807 MONITORING REQUIREMENTS

EPL Condition	Requirement	Report Reference
Weather		
M5.1	The licensee must monitor and record temperature, 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. Monitoring must: a) be representative of the premises; 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.	Section 1.4.1 Appendix A
Noise		
L5.9	 Works outside of standard construction hours – Regulatory Requirements In undertaking any works and activities outside of standard construction hours under condition L4.8, 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 construction 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 L4.3; 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 L4.9(a)(iii). 	Not triggered



L5.10	St Marys Station - Out of Hours Concrete Works								
	Concrete works associated with station box construction at St Marys station, including concrete pouring, finishing and cleaning, are permitted to be undertaken outside of standard construction hours specified in L5.1 provided that: a) Works are required to achieve compliance with overarching project technical requirements.								
	a) Works are required to achieve compliance with overarching project technical requirements,								
	b) Works had already begun within a reasonable time prior to end of standard construction hours,								
	c) Out of Hours (OOH) works are undertaken from 6pm to 10pm, Monday to Friday and 1pm to 4pm on Saturday,								
	d) Station box base slab and wall concreting activities (e.g. using concrete pump, vibrators, concrete trucks, etc) must be completed before 9pm on Monday to Friday,								
	e) Station box base slab and wall concreting activities are permitted to occur up to 9pm Monday to Friday a total of 12 times,								
	f) All other concreting activities (e.g. using concrete pump, vibrators, concrete trucks, etc) must be completed before 8pm on Monday to Friday,								
	g) Concrete finishing works (e.g. power floats, hand tools) must be completed before 10pm on Monday to Friday,								
	h) The licensee is required to undertake noise monitoring in accordance with condition L5.9(b),								
	i) The licensee is required to provide the EPA with a Noise Monitoring Report within 30 days of commencement of works,								
	j) Works are permitted to occur until 27 December 2023.								
M4.4	3	Not triggered							
The licensee	Agreements may work outside standard construction hours (as defined in L5.1) in circumstances other than those perions L5.3, L5.4, or any other condition of the licence, subject to the condition outlined Section E1.	ermitted							
E1.4	31	Not triggered							
E1.5	validation monitoring made be undertaken for any correct and are the approved under condition	Not triggered							
	a) be undertaken in accordance with the monitoring plan prepared under condition E1.4;								
	b) be performed by a Competent Person;								
	c) be performed on at least the first 2 occasions (day, evening, nights) where OOHW will be undertaken and are likely to impact Noise Sensitive Receivers;								
	d) be performed on any other occasion (day, evening, night) where the nature of the works is likely to cause greater noise impacts than the first 2 occasions;								
	e) be representative of the impacts in terms of monitoring locations, time and duration of measurements; and								
	f) be recorded and provided to an EPA officer upon request.								
Water									



P1.1		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.								
	EPA Identification no	Type of Monitoring Point	Typ Poi	pe of Discharge	Loca	ation Description	Appendix B			
	1	Discharge and Monitoring	Dis	Discharge and Monitoring		outlet of the sediment on on the Aerotropolis site harging to Thompson k referred to in Condition				
	2	Discharge and Monitoring		charge and nitoring	treati Mary	outlet of the water ment plant on the St s site discharging to h Creek				
M2.2	Water and/ or Land	Monitoring Requirement	ents				Section 1.4.2			
	Pollutant	Unit of measure		Frequency		Sampling Method	Appendix B			
	Oil and Grease	Visible		Special Frequen		Visual inspection				
	pH Turbidity	pH nephelometric turb units	oidity	Special Frequen		Probe Probe				
	POINT 2	Units of measure		Frequency		Sampling Method				
	Aluminium	micrograms per litr		Daily during any	Grab	Grab sample				
	Ammonia	micrograms per litr	micrograms per litre		e Grab e	Grab sample				
	Chromium (VI) Compounds		micrograms per litre			Grab sample				
	Copper	micrograms per litr	micrograms per litre			Grab sample				
	Electrical conductiv	centimetre				Grab sample				
	Nitrogen (total)	micrograms per litr	re	Daily during any discharge		Grab sample discharge				
	Oil and Grease	Visible		Daily during any discharge Daily during any		Visual Inspection				
	pH	pH		discharge Daily during any discharge Daily during any		Probe				
	Phosphorus (total)	micrograms per litr				Grab sample				
	TSS	milligrams per litre		discharge		Grab sample				
	Zinc	micrograms per litre		Daily during any discharge		Grab sample				
M2.3	For the purposes of Condition M2.2 and the Table thereto, 'Special Frequency 1' means: a) less than 24 hours prior to a controlled discharge and daily for any continued controlled									
	discharge, when it is safe to do so; and b) when rainfall causes a discharge from a sediment basin which has not been emptied within the									
		nt period following ces								
Additiona	al Monitoring Conditio	ns								
M4.5		The licensee must undertake monitoring, sampling, video recording and/or take photographs:								
	connection with the has the potential to	a) if the EPA or licensee reasonably suspects that an event has occurred at the premises or in connection with the carrying out of the activities that has caused, is causing, is likely to cause or has the potential to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies);								
	b) as soon as prac	ticable; and								
	c) as directed by an authorised officer.									



Monitoring 1.4

This section presents summaries of the monitoring completed in the reporting period from 1 December 2023 to 31 December 2023.

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

1.4.1 **Weather Monitoring**

Meteorological observations were captured using the Bureau of Meteorology Weather Stations - Badgerys Creek (Station 067108). Meteorological data for the month of December can be found within Appendix A.

The total rainfall for this reporting period was 104.6 mm with 9 days exceeding 1mm of rain, 4 days exceeding 10mm of rain and 2 days exceeding 20mm of rain.

During the reporting period, 29 days recorded wind gusts of greater than 25km/hr, 2 days where the maximum wind gust recorded was greater than 50 km/h and 1 days where the maximum wind gust was greater than 60 km/hr. Detailed weather observation records for the reporting period are presented in Appendix A.

This information is used daily on site to assess daily activities and consider mitigation measures as required.



TABLE 3 WEATHER SUMMARY AND TRIGGER WEATHER EVENTS FOR REPORTING PERIOD

Weather Event	Observation
Minimum temperature	12.7°C
Maximum temperature	44.0°C
Total rainfall	104.6mm
Number of days with rain (>1mm)	9
Number of days with rain (>10mm)	4
Number of days with rain (>20mm)	2
Number of days with >25km/h wind	29
Number of days with >50km/h wind	2
Number of days with >60km/h wind	1

1.4.2 Discharge to water

The discharge of water from one sediment basin occurred at the following discharging monitoring points/locations during this reporting period:

• SSTOM-001

Basins and discharge points are summarised in Table 4 and monitoring results included in Appendix B.



TABLE 4 DISCHARGE POINTS

ID	Construction Status	EPA ID	Easting	Northing	Description of location of discharge point	Catchment name	Name of nearest waters	Direct discharge to waters	Date added to EPL
SSTOM-001	Active	1	290807.84	6243844.20	The outlet of the sediment basin on the Aerotropolis site discharging to Thompson Creek	South Creek	Thompsons Creek	No	14/11/2023
SSTOM-002	Active	2	294041.62	6261905.98	The outlet of the water treatment plant on the St Marys site at former Plaza	South Creek	South Creek	No	15/12/2023



1.4.3 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.



Appendices



Appendix A Weather Observations

SSTOM Weather Monitoring Data

Observations were drawn from Badgerys Creek AWS (station 067108)

0.000.00.	Temperature Rainfall				Wind Observation		Morning (9am) Weather Observation				Afternoon (3pm) Weather Observation					
					Villa O Doct Vation	-				9am						3pm
Date			In the 24	Direction of	Speed of	Time of				Wind	MSL					MSL
	Minimum	Maximum	hours to	maximum	maximum wind	maximum wind	Temperature	9am relative	Wind	speed	pressure	Temperature	9am relative	Wind	Wind speed	pressure
	(°C)	(°C)	9am (mm)	wind gust	gust (km/h)	gust	(°C)	humidity (%)	direction	(km/h)	(hPa)	(°C)	humidity (%)	direction	(km/h)	(hPa)
1/12/2023	14.8	29.9	0.6		30	13:24	22.9	62		9	1005.9	27.3	49		20	1003
2/12/2023	18.3	27.7	1	ENE	31	16:12	19.9	83	ESE	6	1009	26.9	56		7	1006.8
3/12/2023	12.7	29.8		ESE	35	12:58	19.6	91		7	1013.1	25.1		ESE	19	1011.4
4/12/2023	16.4	27.8	1.8		33	17:10	20	70	SSW	6	1019.6	26.4	47		6	1016.3
5/12/2023	14.1	37.7	0	N	24	13:10	21.9	65	NE	6	1017.1	36.5	25	NNE	9	1011.7
6/12/2023	20.1	29.6	0		30	14:14	25.2	53	NNE	7	1017.6	28.2	46	E	19	1016.2
7/12/2023	17.7	32.3	0	E	31	14:10	23	69	N	7	1018	28.8	52	ESE	20	1016.2
8/12/2023	18.5	39.6	0	ENE	35	16:34	26.6	59	SW	4	1016.8	38.4	26	NE	11	1011.6
9/12/2023	20.9	44	0	S	52	21:49	30.9	51	N	7	1011.4	41.4	17	WNW	22	1008.1
10/12/2023	21.4	31	0	S	44	23:30	22.2	77	S	13	1019.7	30.4	49	ESE	9	1016.1
11/12/2023	19.6	34.7	0	ESE	35	14:48	23.5	71	SW	11	1017.3	33.1	48	ESE	19	1014.6
12/12/2023	19.8	31.8	0	ESE	37	14:52	24.4	70	NNE	4	1020.2	31.1	43	ESE	19	1016.2
13/12/2023	18.1	34.4	0	E	31	16:17	23.9	69	NE	11	1016.2	33	41	ENE	15	1010
14/12/2023	20.8	38.9	8	W	70	13:21	25.9	74	NNW	4	1006.3	38.1	19	W	43	1002.2
15/12/2023	20.1	30.2	0.2	Е	39	15:25	23.7	61	ESE	4	1010.8	28.5	49	ESE	17	1006.8
16/12/2023	15.9	35.6	0	NW	41	11:01	26.2	51	WSW	4	1005.8	34.8	12	SW	24	1003.4
17/12/2023	19.1	29.2	0	ENE	37	13:00	22.8	65	NE	7	1015	26.5	48	Е	22	1012.9
18/12/2023	17.8	32.7	0	ENE	31	12:38	22.1	77	E	2	1015.5	31.3	47	NNE	11	1010.6
19/12/2023	21.1	35.4	0	SSE	39	19:55	23.8	85	W	6	1011.2	33.6	43	NNE	15	1007.5
20/12/2023	17.3	20.5	29.8	SSW	31	7:39	17.4	91	SSW	19	1013.9	17.5	91	SW	17	1014.4
21/12/2023	16.8	24.9	18.4	S	44	13:05	20.3	69	SSW	20	1016.1	22.8	57	S	20	1016.1
22/12/2023	15.1	27.8	0	E	31	14:57	20.1	55	SW	19	1017.6	27	41	E	20	1013.3
23/12/2023	14.4	28.2	0	ESE	37	14:22	22.3	58	ESE	7	1013.9	26.7	50	E	15	1008.7
24/12/2023	17.9	24	0.6	E	33	13:51	21.1	81	NNE	7	1008.1	21.8	75	Е	22	1005.5
25/12/2023	17.6	29.1	20.8	Е	41	17:16	21.8	86	SSW	7	1007	26.2	58	Е	19	1004
26/12/2023	17.4	31.3	1.6		44	15:07	22.9		SSW	11	1007.8	30.4		ESE	20	1004.5
27/12/2023	18.8	26.2		SSW	46	12:43	22.8		SSW	9	1009.5	19	77	ESE	13	1008.7
28/12/2023	15.2	33.5	4.8		35	13:53	21.8	74	N	6	1010.4	32.6		WSW	20	1008.1
29/12/2023	16.5	27.4		NW	28	20:36	22.8	74		6	1012.7	25.2	68	SE	11	1011
30/12/2023	15.7	30.6		ESE	39	16:20	23.3	52		7	1010.6	27.2		ESE	22	1007.7
31/12/2023	16.2	21.2	11.2		19	12:51	17.1		SSW	11	1021.2	20.5		ENE	9	1021.3

NOTE: Red Text denotes data that was missing from Badgerys Creek AWS (Station 067108) and has been sourced from Penrith Lakes AWS (Station 067113)



Appendix B Water Quality Monitoring



Discharge Monitoring Point ID	Type of Monitoring Point	Type of Discharge Point	Date	Discharge Permit No.	Oil and Grease (Visual inspection)	pH (6.5 - 8.5)	Turbidity (50 NTU)
SSTOM-001	Sediment Basin	Discharge into stabilised spillway	07/12/2023	PMJV-ENV-DWP-6	Not visible	6.95	31.1
SSTOM-001	Sediment Basin	Discharge into stabilised spillway	15/12/2023	PMJV-ENV-DWP-7	Not visible	7.79	45.3



Appendix C Premise Maps - December