

EPL 21672 Monitoring Report, November 2022

Sydney Metro Western Sydney Airport Station Boxes and Tunnelling Works

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1. Introduction

1.1. Background

The Sydney Metro Western Sydney Airport project 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 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: Overview of the Project

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The Sydney Metro Western Sydney Airport EIS was prepared in October 2020 to assess the impacts of construction and operation of the Project and was placed on public exhibition between 21 October 2020 and 2 December 2020. The Project was declared a Critical State Significant Infrastructure (CSSI) Project and is listed in Schedule 5 of *State Environmental Planning Policy (State and Regional Development)*.

The Sydney Metro Western Sydney Airport was approved by the Minister for Planning and Public Spaces on 23 July 2021 (SSI 10051) under section 5.19 of the *Environmental Planning and Assessment Act 1997* (EP&A Act).

The Project will be delivered through the following stages:

- **Advanced and Enabling Works (AEW)** – Site investigations, modification of the existing transport network, power and water supply for construction sites, utility and stormwater diversions and some demolition works.
- **Station Boxes and Tunnelling Works (SBT)** – delivered through the following sub-stages:
 - Preparatory Works (the subject of this Plan) – Including NSW (off-airport) demolition works, site levelling/grading, site access and parking, utility and temporary services works, erection of demountable buildings and noise barriers, tunnelling preparatory works and use of ancillary facilities including onsite parking.
 - Bulk Excavation and Tunnelling Works – Preparatory Works (works not completed prior to Final CEMP approval), bulk excavation, acoustic shed installation, tunnelling and cross passage installation.
- **Surface and Civil Alignment Works (SCAW)** – Construction of bridges and viaducts to cross floodplains, watercourses and existing and proposed permanent infrastructure.
- **Stations, Systems, Trains, Operations and Maintenance (SSTOM)**– Station design and fitout, testing and commissioning, and operation of the Western Sydney Airport metro service
- **Finalisation Auxiliary Works.**

Each package of work is to be delivered under separate contracts on behalf of the proponent Sydney Metro.



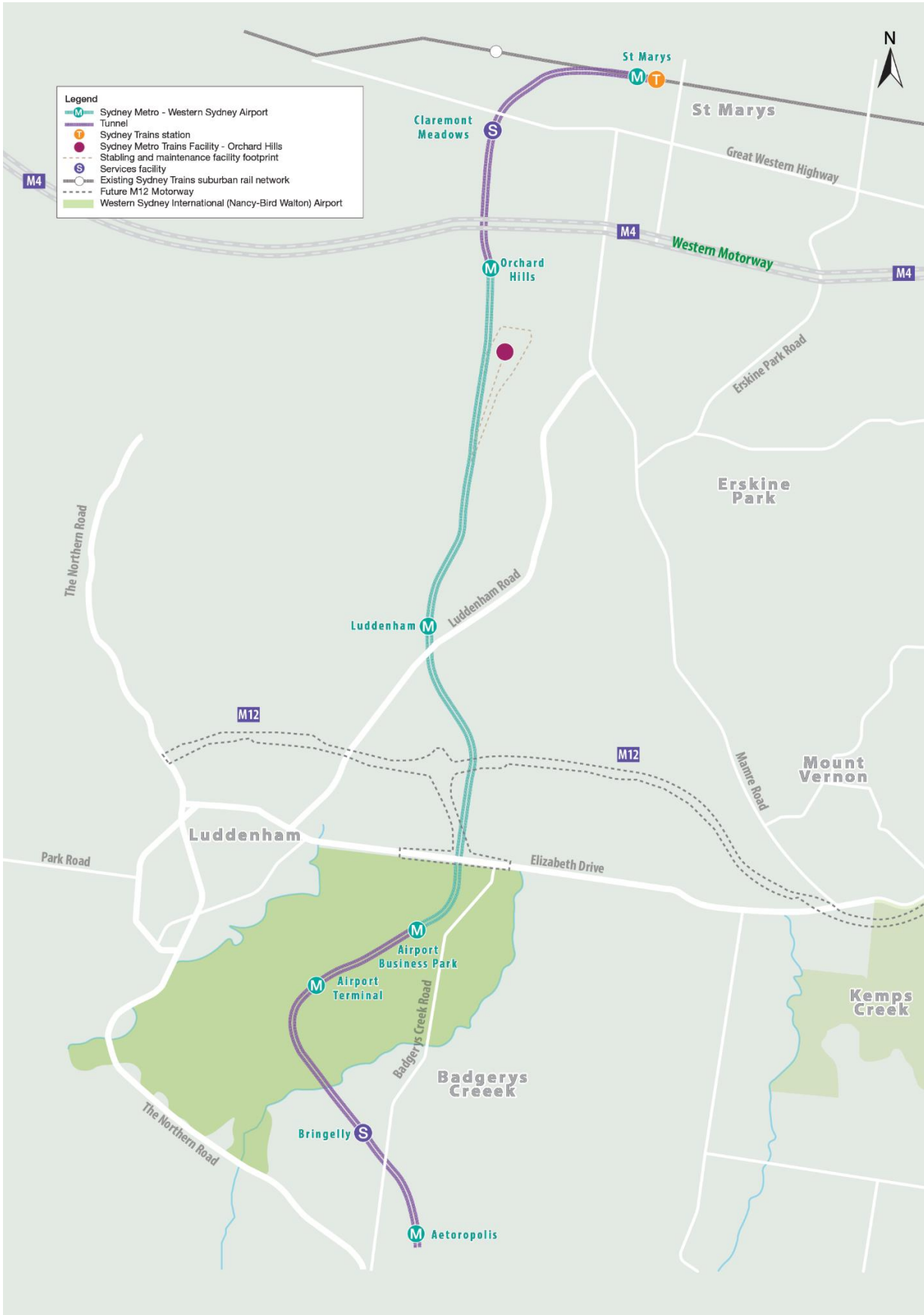


Figure 1: Overview of the Project



1.1.1. Station Boxes and Tunnelling Works

The CPB Ghella JV has been engaged to deliver the SBT Works. The SBT Works include the design and construction of:

- Two sections of twin tunnels with a total combined length of approximately 9.8km, including associated portal structures; Orchard Hills to St Marys and Western Sydney International (WSI) airport to the new Aerotropolis Station in NSW
- Excavations at either end to enable trains to turn back and stub tunnels to enable future extensions
- Station box excavations with temporary ground support for four stations at St Marys, Orchard Hills, Airport Terminal and Aerotropolis
- Excavations for two intermediate service facilities, one in each of the tunnel sections at Claremont and Bringelly.

Completed sections of the SBT Works, including established construction worksites, will be progressively handed over to Sydney Metro to enable follow-on contractors to commence works. The exception is the on-airport Precast Segment Storage Facility which will be decommissioned and hydroseeded following the completion of segment manufacture.

1.2. Scope of this report

CPB Contractors Pty Limited have been issued an Environmental Protection Licence (EPL No. 21672) from the NSW Environment Protection Authority (EPA) for the Sydney Metro Western Sydney Airport Station Box and Tunnelling Package on behalf of Sydney Metro.

The EPL applies to the works approved under the Infrastructure Approval SSI-10051 associated with the delivery of Sydney Metro Western Sydney Airport SBT Works Off-airport worksites. The EPL does not apply to other Sydney Metro Western Sydney Airport works packages or On-airport SBT Worksites.

An overview of relevant jurisdiction at each SBT Worksite is provided in Table 1.

Table 1: SBT Worksite Jurisdiction

Jurisdiction	Worksite
NSW	St Marys
NSW	Claremont Meadows
NSW	Orchard Hills
On-Airport	Airport Portal Dive Structure
On-Airport	Airport Terminal and TBM shaft
On-Airport	Precast Segment Storage Facility
On-Airport	Primary Spoil Reveal
NSW	Bringelly
NSW	Aerotropolis

Note: Worksites shown in grey are within the boundary of the Western Sydney International (On-Airport), are regulated under the *Commonwealth Airports Act 1996* and are outside the scope of EPL 21672.

This EPL Pollution Monitoring Report provides the results of all pollution monitoring required to be measured or monitored by the licensee of EPL 21672 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 provides a summary of the EPL 21672 details.

Table 2: License details

Licence Details	
Number:	21672
Copy of License	ViewPOEOLicence.aspx (nsw.gov.au)
Anniversary Date	30-May
Licensee	CPB Contractors Pty Limited
Premises	Sydney Metro Western Sydney Airport Station Box and Tunnelling Package St Marys to Orchard Hills and Bringelly to Aerotropolis St Marys NSW 2760
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 SBT Works 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 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 Section 4).

Table 3 provides a summary of the pollution monitoring requirements of EPL 21672.



Table 3: EPL 21672 Pollution Monitoring Requirements

EPL Condition	Requirement	Report Reference
Weather		
M5.1	<p>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.</p> <p>Monitoring must:</p> <ul style="list-style-type: none"> 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. <p>The rainfall monitoring data collected in compliance with this condition can be used to determine compliance with condition L2.5</p>	Section 3.1 Annexure A
Noise		
L5.9	<p>In undertaking any works and activities outside of standard construction hours under condition L5.8, the licensee must comply with the following:</p> <ul style="list-style-type: none"> a) Prepare a construction noise and vibration impact assessment in accordance with the Interim Construction Noise Guideline (DEC, 2009) that is to include: <ul style="list-style-type: none"> 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 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). 	Section 3.2 Annexure B
M4.4	<p>The licensee must undertake noise and vibration monitoring as directed by an authorised officer of the EPA. Where the monitoring is requested to take place on private land (for example a residential property) the licensee must request permission to access the premises in advance and keep a record of permission requests and responses. If a licensee is unable to obtain permission, the licensee must undertake the monitoring at an indicative location where possible and they must provide the response (including any nil response) to the EPA.</p>	N/A No direction received from EPA to undertake noise and vibration monitoring during this reporting period.



EPL Condition																						
E1.4	A noise validation monitoring plan must be submitted to the EPA for approval as part of the community agreement documentation prior to any OOHW occurring.	N/A																				
E1.5	<p>Validation monitoring must be undertaken for any OOHW that are the approved under condition E1.1 and must:</p> <p>a) be undertaken in accordance with the monitoring plan prepared under condition E1.4;</p> <p>b) be performed by a Competent Person;</p> <p>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;</p> <p>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;</p> <p>e) be representative of the impacts in terms of monitoring locations, time and duration of measurements; and</p> <p>f) be recorded and provided to an EPA officer upon request</p>	Not triggered during this reporting period																				
P1.1	<p>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.</p> <table border="1" data-bbox="335 1240 1120 1626"> <tbody> <tr> <td>1</td> <td>Discharge and Monitoring</td> <td>Discharge and Monitoring</td> <td>The outlet(s) of the sediment basin(s) on the Orchard Hills site discharging to South Creek referred to in Condition P1.2</td> </tr> <tr> <td>2</td> <td>Discharge and Monitoring</td> <td>Discharge and Monitoring</td> <td>The outlet(s) of the sediment basin(s) on the Claremont site discharging to South Creek referred to in Condition P1.2</td> </tr> <tr> <td>3</td> <td>Discharge and Monitoring</td> <td>Discharge and Monitoring</td> <td>The outlet(s) of the sediment basin(s) on the St Marys site discharging to South Creek referred to in Condition P1.2</td> </tr> <tr> <td>4</td> <td>Discharge and Monitoring</td> <td>Discharge and Monitoring</td> <td>The outlet(s) of the sediment basin(s) on the Bringelly site discharging to Badgerys Creek referred to in Condition P1.2</td> </tr> <tr> <td>5</td> <td>Discharge and Monitoring</td> <td>Discharge and Monitoring</td> <td>The outlet(s) of the sediment basin(s) on the Aerotropolis site discharging to Thompson Creek referred to in Condition P1.2</td> </tr> </tbody> </table>	1	Discharge and Monitoring	Discharge and Monitoring	The outlet(s) of the sediment basin(s) on the Orchard Hills site discharging to South Creek referred to in Condition P1.2	2	Discharge and Monitoring	Discharge and Monitoring	The outlet(s) of the sediment basin(s) on the Claremont site discharging to South Creek referred to in Condition P1.2	3	Discharge and Monitoring	Discharge and Monitoring	The outlet(s) of the sediment basin(s) on the St Marys site discharging to South Creek referred to in Condition P1.2	4	Discharge and Monitoring	Discharge and Monitoring	The outlet(s) of the sediment basin(s) on the Bringelly site discharging to Badgerys Creek referred to in Condition P1.2	5	Discharge and Monitoring	Discharge and Monitoring	The outlet(s) of the sediment basin(s) on the Aerotropolis site discharging to Thompson Creek referred to in Condition P1.2	Section 3.3 Annexure C
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L2.1	For each monitoring/discharge point or utilisation area specified in the table's below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	Noted																				
M2.2	<p>POINT 1,2,3,4,5</p> <table border="1" data-bbox="376 1841 1139 1944"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Oil and Grease</td> <td>Visible</td> <td>Special Frequency 1</td> <td>Visual Inspection</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Special Frequency 1</td> <td>Probe</td> </tr> <tr> <td>Turbidity</td> <td>nephelometric turbidity units</td> <td>Special Frequency 1</td> <td>Probe</td> </tr> </tbody> </table>	Pollutant	Units of measure	Frequency	Sampling Method	Oil and Grease	Visible	Special Frequency 1	Visual Inspection	pH	pH	Special Frequency 1	Probe	Turbidity	nephelometric turbidity units	Special Frequency 1	Probe	Noted				
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EPL Condition	Requirement	Report Reference															
M2.3	<p>For the purposes of Condition M2.2 and the Table thereto, 'Special Frequency 1' means:</p> <p>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</p> <p>b) when rainfall causes a discharge from a sediment basin which has not been emptied within the design management period following cessation of a rainfall event, when it is safe to do so.</p>	Noted															
E2.1	<p>The licensee must undertake monthly surface water monitoring at discharge point 1 identified in Condition P1.1 for a minimum of 6 months from the date of issue of this licence. Monthly monitoring results must include:</p> <p>a) quality and quantity of all parameters that are identified in the table in E2.2 at each discharge point; and</p> <p>b) results must be submitted to the EPA no more than 2 weeks after each monthly monitoring event has occurred for a minimum of 6 months from the date of issue of this licence.</p>	Noted															
E2.2	<table border="1" data-bbox="341 913 1197 1442"> <thead> <tr> <th>Category</th> <th>Measured</th> <th>Parameters</th> </tr> </thead> <tbody> <tr> <td>Physio-chemical parameters</td> <td>In-field using a calibrated multi parameter probe.</td> <td> <ul style="list-style-type: none"> • Temperature (°C) • Dissolved Oxygen (% saturation) • Electrical Conductivity (µS/cm) • Reduction-Oxidation Potential (Redox)(mV) • pH • Total suspended solids (TSS) • Turbidity (NTU) • Visible oil and grease </td> </tr> <tr> <td>Metals</td> <td>Laboratory testing</td> <td> <ul style="list-style-type: none"> • Aluminium • Arsenic (III and V) • Cadmium • Cobalt • Chromium (III and VI) • Copper • Lead • Manganese • Mercury • Nickel • Vanadium • Zinc </td> </tr> <tr> <td>Organochlorine Pesticides</td> <td>Laboratory testing</td> <td> <ul style="list-style-type: none"> • Endosulphan • Methoxychlor </td> </tr> <tr> <td>Total Petroleum Hydrocarbons</td> <td>Laboratory testing</td> <td> <ul style="list-style-type: none"> • TPH C10-C36 Fraction • TPH C6-C9 Fraction </td> </tr> </tbody> </table>	Category	Measured	Parameters	Physio-chemical parameters	In-field using a calibrated multi parameter probe.	<ul style="list-style-type: none"> • Temperature (°C) • Dissolved Oxygen (% saturation) • Electrical Conductivity (µS/cm) • Reduction-Oxidation Potential (Redox)(mV) • pH • Total suspended solids (TSS) • Turbidity (NTU) • Visible oil and grease 	Metals	Laboratory testing	<ul style="list-style-type: none"> • Aluminium • Arsenic (III and V) • Cadmium • Cobalt • Chromium (III and VI) • Copper • Lead • Manganese • Mercury • Nickel • Vanadium • Zinc 	Organochlorine Pesticides	Laboratory testing	<ul style="list-style-type: none"> • Endosulphan • Methoxychlor 	Total Petroleum Hydrocarbons	Laboratory testing	<ul style="list-style-type: none"> • TPH C10-C36 Fraction • TPH C6-C9 Fraction 	Noted
Category	Measured	Parameters															
Physio-chemical parameters	In-field using a calibrated multi parameter probe.	<ul style="list-style-type: none"> • Temperature (°C) • Dissolved Oxygen (% saturation) • Electrical Conductivity (µS/cm) • Reduction-Oxidation Potential (Redox)(mV) • pH • Total suspended solids (TSS) • Turbidity (NTU) • Visible oil and grease 															
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Additional Monitoring Conditions																	
M4.5	<p>The licensee must undertake monitoring, sampling, video recording and/or take photographs:</p> <p>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);</p> <p>b) as soon as practicable; and</p> <p>c) as directed by an authorised officer.</p>	Noted															



3. Monitoring

Section 3 presents a summary of the monitoring programs completed in the reporting period from 1 November 2022 to 30 November 2022.

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

3.1. Meteorological Data

Meteorological data for the Project has been taken from Badgerys Creek Automatic Weather Station (AWS).

The total rainfall recorded during the reporting period was 45.8 mm with 3 days exceeding one millimetre of rain and 1 day of rain exceeding 10 mm.

During the reporting period, there were 30 days where the maximum wind gust recorded was greater than 25 km/hr, 7 days where the maximum wind gust recorded was greater than 50 km/h and 2 days where the maximum wind gust was greater than 60 km/hr. Winds recorded during the reporting period were predominantly westerly component, however there was variability throughout the month.

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

Table 4: Weather summary and trigger weather events for reporting period¹

Weather Event	Observation
Minimum temperature	5.8 °C
Maximum temperature	32.6 °C
Total rainfall	45.8 mm
Number of days with rain (>1 mm)	3 days
Number of days with rain (>10 mm)	1 day
>25 km/hr wind ²	30 days
>50 km/hr wind	7 days
>60 km/hr wind	2 days

¹Weather summary based on data from the 1 November 2022 to 30 November 2022 (30 days).

²Weather data from Badgerys's Creek AWS {station 067108}.



3.2. Noise

Noise monitoring is a requirement of the following conditions of EPL 21672:

- L5.9, E1.4 Monitoring to validate the noise predictions for works undertaken outside of the standard construction hours as per the construction noise impact assessment
- M7.6 Noise monitoring following noise and vibration complaints
- M4.4 Noise and vibration monitoring as directed by an authorised officer of the EPA.

Error! Reference source not found. provides a summary of noise monitoring events conducted during the reporting period. Detailed noise monitoring results and comments are presented in Annexure B. There were no exceedances of the predicted noise level ($L_{Aeq15min}$) during the reporting period.

Table 5: Summary of noise monitoring conducted during this reporting period

Date	Monitoring Location	Attended/Continuous	Description
9/11/2022	Within St Mary construction site	Attended	Minimal works, background noise check
17/11/2022	135 Badgerys Creek Road, Bringelly	Attended	Piling
10/11/2022 – 30/11/2022	SBT site Bringelly (-33.907669, 150.725296)	Continuous	General Construction
18/11/2022 – 30/11/2022	SBT site Aerotropolis (-33.923161, 150.735306)	Continuous	General Construction
28/11/2022 – 30/11/2022	SBT site Orchard Hills - north (-33.784828, 150.751389)	Continuous	General Construction
28/11/2022 – 30/11/2022	SBT site Orchard Hills - south (-33.789341, 150.753754)	Continuous	General Construction

3.3. Discharge to Water

The EPL discharge criteria apply to the sediment basins and settling containers identified and located in the document titled "SBT Discharge Point Register" and maintained on electronic file EF22/5394. The active basins and discharge points during the reporting period are summarised in Annexure C.



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.



Annexure A Weather Observations

Table 6: Weather Observations: Badgerys Creek AWS {station 067108}.

Date	Temperatures		Rain mm	9am		3pm	
	Min	Max		Temperature	Relative Humidity	Temperature	Relative Humidity
	°C			°C	%	°C	%
1/11/2022	15.6	22.5	9.6	18.6	52	20.4	38
2/11/2022	7.7	19.6	1.0	13.9	42	18.6	35
3/11/2022	6.0	23.3	0	16.6	51	22.8	33
4/11/2022	12.0	20.7	1.2	16.5	73	19.9	57
5/11/2022	11.1	24.8	0	17.8	68	23.0	49
6/11/2022	9.5	26.7	0	17.5	71	26.0	43
7/11/2022	11.1	25.5	0	18.7	74	23.3	53
8/11/2022	12.2	25.4	0	19.5	69	24.3	45
9/11/2022	10.9	25.6	0	19.2	66	23.4	48
10/11/2022	10.2	25.6	0	19.7	65	24.4	47
11/11/2022	10.0	27.3	0	18.5	66	21.8	65
12/11/2022	12.2	28.7	0	22.0	68	27.2	54
13/11/2022	15.8	26.1	0	19.4	86	25.0	69
14/11/2022	16.7	26.9	32.6	22.0	63	25.7	39
15/11/2022	11.2	26.0	0	21.4	51	24.5	43
16/11/2022	8.0	20.2	0	16.2	42	16.2	51
17/11/2022	5.8	21.9	0.4	15.5	60	17.9	49
18/11/2022	9.8	23.6	0	17.4	53	22.2	44
19/11/2022	9.1	27.2	0	17.9	74	26.0	42
20/11/2022	14.4	26.4	0	23.1	41	24.8	32
21/11/2022	15.1	22.5	0.2	21.3	39	20.4	35
22/11/2022	10.3	22.4	0	14.8	40	22.3	35
23/11/2022	7.1	27.4	0	19.5	50	26.6	33
24/11/2022	10.7	27.1	0	20.0	52	26.4	35
25/11/2022	12.6	29.0	0	20.6	67	26.4	47
26/11/2022	13.5	25.5	0	19.9	56	24.2	47
27/11/2022	13.1	27.7	0	18.0	72	27.4	54
28/11/2022	16.1	25.7	0.8	18.6	77	21.9	64
29/11/2022	11.4	26.2	0	20.4	44	22.6	39
30/11/2022	14.2	22.3	0	17.9	68	20.9	57



Table 7: Wind Observations: Badgerys Creek AWS (station 067108).

Date	Maximum wind gusts			9am		3pm	
	Direction	Speed km/h	Time Local	Direction	Speed km/h	Direction	Speed km/h
1/11/2022	WNW	67	14:50	WNW	20	NW	33
2/11/2022	W	57	14:36	W	26	W	31
3/11/2022	SW	35	09:21	W	24	SW	17
4/11/2022	ENE	30	15:35	SSE	4	NE	13
5/11/2022	ENE	33	13:52	NE	4	E	20
6/11/2022	ENE	33	14:19	NE	2	ENE	13
7/11/2022	E	35	15:43	SW	6	ENE	9
8/11/2022	E	31	14:03	NNE	2	E	15
9/11/2022	ENE	33	13:18	NE	6	E	19
10/11/2022	ENE	31	15:59	N	4	E	13
11/11/2022	NNW	41	13:24	N	4	N	17
12/11/2022	E	31	13:07	NE	4	E	17
13/11/2022	NNE	46	15:08	E	4	NNE	28
14/11/2022	WNW	67	11:54	NW	11	NW	33
15/11/2022	W	37	15:24	SW	19	NW	7
16/11/2022	SW	63	12:11	WSW	20	WSW	28
17/11/2022	ESE	30	17:13	WSW	11	ESE	17
18/11/2022	SSW	35	08:35	SW	17	ESE	17
19/11/2022	ENE	31	16:40	NNE	11	NNE	13
20/11/2022	W	74	11:00	W	31	WNW	39
21/11/2022	WNW	74	11:46	WNW	41	WNW	44
22/11/2022	WSW	57	07:54	WSW	39	W	24
23/11/2022	W	41	13:34	WSW	19	W	26
24/11/2022	E	33	14:31	WSW	7	ENE	9
25/11/2022	ESE	37	14:03	NNE	6	SE	20
26/11/2022	ENE	33	14:21	SSE	11	E	20
27/11/2022	SW	35	21:37	ENE	4	E	4
28/11/2022	E	33	15:08	SSW	4	ESE	15
29/11/2022	SW	43	08:06	SW	20	SE	24
30/11/2022	E	31	15:12	ENE	6	ESE	13



Annexure B Noise Monitoring Results

Table 8: Noise Monitoring Results

Date	Time	Works Period	Construction Activity	Activity Location	Monitoring Location	NML (dBA)	Predicted (dBA)	Additional Mitigation Measures	Recorded Leq, 15min (dBA)	LAmx	Exceedance of Predicted (dBA)	Exceedance of Predicted	Comments
9/11/2022	8:00am	Standard	Minimal Works. Background noise check	SBT Site (St Marys)	Within construction site, St Marys	47	N/A	N/A	58.7	78.0	N/A	N/A	Background noise verification monitoring. Minimal construction activities, extraneous noise was the dominant noise source.
17/11/2022	10:00am	Standard	Piling	SBT Site (Aerotropolis)	135 Badgerys Creek Road, Bringelly	45	69.5	LB, M, SN	65.2	74.8	-4.3	No	Verification noise monitoring. Road traffic noise was the dominant noise source.
28/11/2022 – 30/11/2022	Continuous Monitoring		Construction Works	SBT Orchard Hills (north)	-33.784828, 150.751389	54	*	*	*	*	*	No	Activities are reviewed in response to exceedance alerts. Where the exceedance is attributed to construction, a review is undertaken of works and plant/ equipment or methodology is modified where necessary. No exceedances were attributed to SBT construction activities. Continuous monitoring values are available on request.
28/11/2022 – 30/11/2022	Continuous Monitoring		Construction Works	SBT Orchard Hills (south)	-33.789341, 150.753754	54	*	*	*	*	*	No	
10/11/2022 – 30/11/2022	Continuous Monitoring		Construction Works	SBT Bringelly	-33.907669, 150.725296	45	*	*	*	*	*	No	
18/11/2022 – 30/11/2022	Continuous Monitoring		Construction Works	SBT Aerotropolis	-33.923161, 150.735306	48	*	*	*	*	*	No	

OOHW1 is defined as:

- a. 6:00pm to 10:00pm (evenings) Monday to Saturday
- b. 7:00am to 8:00am and 1:00pm to 10:00pm (day & evening) Saturday and
- c. 8:00am to 6:00pm Sunday and public holidays (days).

OOHW2 is defined as:

- a. 10:00pm to 7:00am (nights) Monday to Saturday and
- b. 6:00pm to 8:00am (nights) Sundays and public holidays.

Additional Mitigation Measures

- LB = Letter box drops
- M = Monitoring
- SN = Specific Notification
- RO = Project Specific Respite Offer
- IB = Individual Briefing
- PC = Phone Calls and Emails
- AA = Alternate Accommodation



Annexure C Discharge to water

Table 9: SBT Discharge Point Register (electronic file EF22/5394) (Rev 1, submitted 4th of October 2022)

ID	EPA ID (Condition P1.1)	Construction Status	Easting	Northing	Description of location of discharge point	Catchment name	Name of nearest waters	Direct discharge to waters	Basin size (operational) m3	Location description	Date added	Revision Added
SBT-001	3	Inactive	294119.4684	6261927.807	The outlet of the sediment basin(s) on the St Marys site North of Station street	South Creek	South Creek	No	400m3	Discharge into local stormwater system	04/10/2022	1
SBT-002	3	Active	294041.6184	6261905.9783	The outlet of the sediment basin(s) on the St Marys site at former Plaza	South Creek	South Creek	No	400m3	Discharge into local stormwater system	04/10/2022	1
SBT-003	2	Active	292018.2099	6261255.3813	The outlet of the sediment basin on the Claremont Meadows Site south of Great Western Highway	South Creek	Claremont Creek	No	185m3	Discharge into local stormwater system	04/10/2022	1
SBT-004	2	Active	292072.0196	6261326.0789	The outlet of the sediment basin on the Claremont Meadows site West of Gipps Street	South Creek	Claremont Creek	No	539m3	Discharge into local stormwater system	04/10/2022	1
SBT-005	1	Inactive	292053.3538	6259530.3707	The outlet of the sediment basin on the Orchard Hills site	South Creek	South Creek	No	1249m3	Discharge into vegetated / stabilized land	04/10/2022	1
SBT-006	1	Inactive	292065.7524	6259303.9277	The outlet of the sediment basin on the Orchard Hills site south of M4	South Creek	South Creek	No	440m3	Discharge into vegetated / stabilized land	04/10/2022	1
SBT-007	1	Inactive	291857.7443	6259276.8491	The outlet of the sediment basin on the Orchard Hills site east of Kent Road	South Creek	Unnamed tributary of South Creek	Yes	580m3	Discharge into creek	04/10/2022	1
SBT-008	1	Inactive	291857.4535	6259221.8921	The outlet of the sediment basin on the Orchard Hills site east of Kent Road	South Creek	Unnamed tributary of South Creek	Yes	510m3	Discharge into creek	04/10/2022	1
SBT-009	1	Inactive	291808.8936	6258854.9307	The outlet of the sediment basin on the Orchard Hills site north of Lansdowne Road	South Creek	South Creek	No	352m3	Discharge into vegetated / stabilized land	04/10/2022	1
SBT-010	1	Inactive	291963.0058	6258833.1224	The outlet of the sediment basin on the Orchard Hills site north of Lansdowne Road	South Creek	South Creek	No	299m3	Discharge into vegetated / stabilized land	04/10/2022	1
SBT-011	1	Inactive	291975.5092	6258798.5199	The outlet of the sediment basin on the Orchard Hills site south of Lansdowne Road	South Creek	South Creek	No	551m3	Discharge into vegetated / stabilized land	04/10/2022	1
SBT-012	1	Inactive	291803.9504	6258604.2804	The outlet of the sediment basin on the Orchard Hills site south of Lansdowne Road	South Creek	South Creek	No	247m3	Discharge into vegetated / stabilized land	04/10/2022	1
SBT-013	4	Active	289481.8143	6245851.2954	The outlet of the sediment basin on the Bringelly site west of Derwent Road	South Creek	Badgerys Creek	No	317m3	Discharge into vegetated / stabilized land	04/10/2022	1
SBT-014	5	Inactive	290853.6384	6243780.4655	The outlet of the sediment basin on the Aerotropolis site east side of Aerotropolis	South Creek	Thompsons Creek	No	1085m3	Discharge into vegetated / stabilized land	04/10/2022	1



Table 10: Discharge Water Quality

Discharge Monitoring Point ID	Type of Monitoring Point	Type of Discharge Point	Date	Discharge Permit No.	Oil and Grease (Not Visible)	pH (6.5 – 8.5)	Turbidity (50 NTU)	Comments
SBT-013	Basins and settling containers	Vegetated / stabilized land	21/11/2022	002	Not visible	8.39	37.5	
SBT-002	Basins and settling containers	Stormwater inlet	24/11/2022	003	Not visible	7.32	13.12	

No further discharges occurred.

