



# EPL 21807 Monitoring Report January 2024

SMWSASSM-PLD-1NL-NL000-EV-RPT-000008

Parklife Metro D&C

## Document Approval

Revision	Author	Date	Comments	Reviewed by	Approved by
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Signature	
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# 1 Introduction

## 1.1 Background

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.

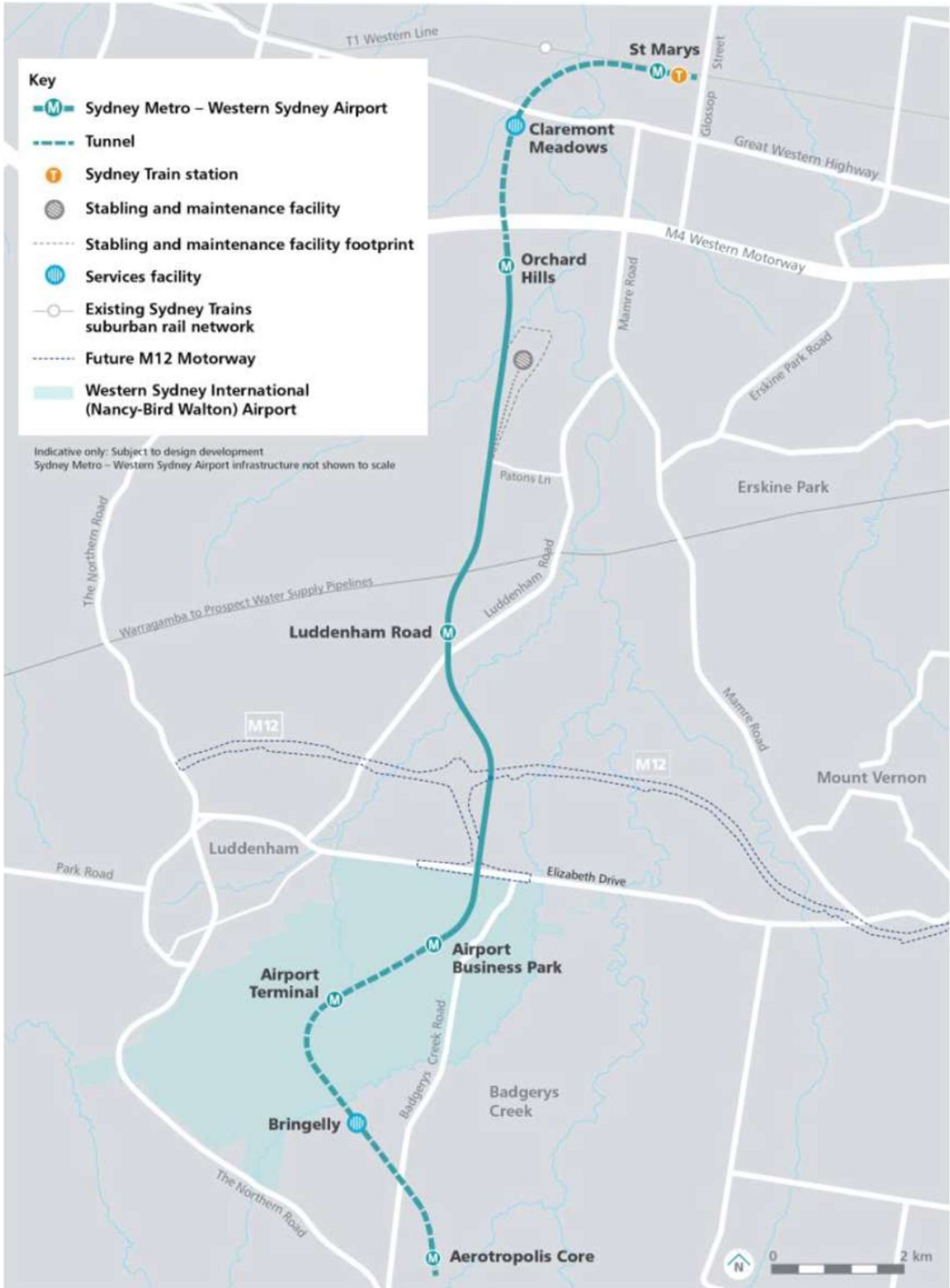


FIGURE 1 OVERVIEW OF SMWSA PROJECT



## 1.2 Scope of this report

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	
<b>Number</b>	21807
<b>Copy of Licence</b>	<a href="#">Environment &amp; Heritage   POEO Licences, Application and Notice Detail (nsw.gov.au)</a>
<b>Anniversary Date</b>	20-July
<b>Licensee</b>	WEBUILD S.P.A
<b>Premises</b>	SYDNEY METRO WESTERN SYDNEY AIRPORT SSTOM PACKAGE FOOTPRINT  SYDNEY METRO WESTERN SYDNEY AIRPORT-STATIONS, SYSTEMS, TRAINS, OPERATION & MAINTENANCE PACKAGE
<b>Scheduled Activity</b>	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:

*“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
<b>Weather</b>		
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. Monitoring must:</p> <ul style="list-style-type: none"> <li>a) be representative of the premises;</li> <li>b) commence prior to any works that may cause sediment to leave the premises; and</li> <li>c) continue to be operated until soil disturbance activities cease at the premises and the site has been stabilised.</li> </ul>	Section 3.1 Appendix A
<b>Noise</b>		
L5.9	<p>Works outside of standard construction hours – Regulatory Requirements</p> <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"> <li>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"> <li>i. a description of the proposed works and activities outside of standard construction hours;</li> <li>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</li> <li>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.</li> </ul> </li> <li>b) Undertake noise monitoring in accordance with the monitoring plan required by condition L5.9(a)(iii).</li> </ul>	Section 3.2 Appendix B



L5.10	<p>St Marys Station - Out of Hours Concrete Works</p> <p>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:</p> <p>a) Works are required to achieve compliance with overarching project technical requirements,</p> <p>b) Works had already begun within a reasonable time prior to end of standard construction hours,</p> <p>c) Out of Hours (OOH) works are undertaken from 6pm to 10pm, Monday to Friday and 1pm to 4pm on Saturday,</p> <p>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,</p> <p>e) Station box base slab and wall concreting activities are permitted to occur up to 9pm Monday to Friday a total of 12 times,</p> <p>f) All other concreting activities (e.g. using concrete pump, vibrators, concrete trucks, etc) must be completed before 8pm on Monday to Friday,</p> <p>g) Concrete finishing works (e.g. power floats, hand tools) must be completed before 10pm on Monday to Friday,</p> <p>h) The licensee is required to undertake noise monitoring in accordance with condition L5.9(b),</p> <p>i) The licensee is required to provide the EPA with a Noise Monitoring Report within 30 days of commencement of works,</p> <p>j) Works are permitted to occur until 14 February December 2024.</p>	Section 3.2 Appendix 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>	Not triggered
<p><b>Community Agreements</b></p> <p>The licensee may work outside standard construction hours (as defined in L5.1) in circumstances other than those permitted under conditions L5.3, L5.4, or any other condition of the licence, subject to the condition outlined Section E1.</p>		
E1.4	<p>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.</p>	Not triggered
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
<p><b>Water</b></p>		

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="244 293 1246 568"> <thead> <tr> <th>EPA Identification no</th> <th>Type of Monitoring Point</th> <th>Type of Discharge Point</th> <th>Location Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Discharge and Monitoring</td> <td>Discharge and Monitoring</td> <td>The outlet of the sediment basin on the Aerotropolis site discharging to Thompson 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 of the water treatment plant on the St Marys site discharging to South Creek</td> </tr> </tbody> </table>	EPA Identification no	Type of Monitoring Point	Type of Discharge Point	Location Description	1	Discharge and Monitoring	Discharge and Monitoring	The outlet of the sediment basin on the Aerotropolis site discharging to Thompson Creek referred to in Condition P1.2	2	Discharge and Monitoring	Discharge and Monitoring	The outlet of the water treatment plant on the St Marys site discharging to South Creek	Section 3.3.1 Appendix C																																																				
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M2.2	<p>Water and/ or Land Monitoring Requirements</p> <p>POINT 1</p> <table border="1" data-bbox="244 669 1246 797"> <thead> <tr> <th>Pollutant</th> <th>Unit 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> <p>POINT 2</p> <table border="1" data-bbox="244 853 1227 1431"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Aluminium</td> <td>micrograms per litre</td> <td>Daily during any Grab sample discharge</td> <td>Grab sample</td> </tr> <tr> <td>Ammonia</td> <td>micrograms per litre</td> <td>Daily during any Grab sample discharge</td> <td>Grab sample</td> </tr> <tr> <td>Chromium (VI) Compounds</td> <td>micrograms per litre</td> <td>Daily during any discharge</td> <td>Grab sample</td> </tr> <tr> <td>Copper</td> <td>micrograms per litre</td> <td>Daily during any discharge</td> <td>Grab sample</td> </tr> <tr> <td>Electrical conductivity</td> <td>microsiemens per centimetre</td> <td>Daily during any discharge</td> <td>Grab sample</td> </tr> <tr> <td>Nitrogen (total)</td> <td>micrograms per litre</td> <td>Daily during any discharge</td> <td>Grab sample discharge</td> </tr> <tr> <td>Oil and Grease</td> <td>Visible</td> <td>Daily during any discharge</td> <td>Visual Inspection</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Daily during any discharge</td> <td>Probe</td> </tr> <tr> <td>Phosphorus (total)</td> <td>micrograms per litre</td> <td>Daily during any discharge</td> <td>Grab sample</td> </tr> <tr> <td>TSS</td> <td>milligrams per litre</td> <td>Daily during any discharge</td> <td>Grab sample</td> </tr> <tr> <td>Zinc</td> <td>micrograms per litre</td> <td>Daily during any discharge</td> <td>Grab sample</td> </tr> </tbody> </table>	Pollutant	Unit 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	Pollutant	Units of measure	Frequency	Sampling Method	Aluminium	micrograms per litre	Daily during any Grab sample discharge	Grab sample	Ammonia	micrograms per litre	Daily during any Grab sample discharge	Grab sample	Chromium (VI) Compounds	micrograms per litre	Daily during any discharge	Grab sample	Copper	micrograms per litre	Daily during any discharge	Grab sample	Electrical conductivity	microsiemens per centimetre	Daily during any discharge	Grab sample	Nitrogen (total)	micrograms per litre	Daily during any discharge	Grab sample discharge	Oil and Grease	Visible	Daily during any discharge	Visual Inspection	pH	pH	Daily during any discharge	Probe	Phosphorus (total)	micrograms per litre	Daily during any discharge	Grab sample	TSS	milligrams per litre	Daily during any discharge	Grab sample	Zinc	micrograms per litre	Daily during any discharge	Grab sample	Section 3.3.1 Appendix C
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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>	Section 3.3.1 Appendix C																																																																
E2.1	<p>The licensee must undertake surface water monitoring of receiving waterways at locations upstream, downstream and adjacent to discharge point 2 identified in Condition P1.1 at fortnightly intervals and at least once during each discharge event. This monitoring must be undertaken for a minimum of 3 months from the date that point 2 was added to the licence.</p> <p>Surface water monitoring results must include:</p> <p>a) quality and quantity of all parameters that are identified in the table in M2.2 for discharge point 2; and</p> <p>b) results must be submitted to the EPA no more than 2 weeks after each monitoring event has occurred for a minimum of 3 months from the date that point 2 was added to the licence</p>	Section 3.3.2 Appendix D																																																																

E3.1	<p>Water Treatment Plant (WTP) Performance Reporting</p> <p>A) The licensee must undertake water quality sampling of all discharges from the WTP (as identified as Point 2 under condition P1.1) and submit to the EPA a WTP Performance Report within 10 business days of each sample result being taken. Sampling must be undertaken:</p> <p>i) daily during discharge ii) as per condition M2.2, following this sampling frequency or as directed by the EPA.</p> <p>ii) as per condition M2.2, following this sampling frequency or as directed by the EPA.</p>	Not Triggered
<b>Additional Monitoring Conditions</b>		
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>	Not triggered

## 3 Monitoring

This section presents summaries of the monitoring completed in the reporting period from 1 January 2024 to 31 January 2024.

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

### 3.1 Weather Monitoring

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

The total rainfall for this reporting period was 85.0 mm with 10 days exceeding 1mm of rain, 3 days exceeding 10mm of rain and 1 day exceeding 20mm of rain.

During the reporting period, 23 days recorded wind gusts of greater than 25km/hr, 0 days where the maximum wind gust recorded was greater than 50 km/h and 0 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	14.6°C
Maximum temperature	38.8°C
Total rainfall	85.0mm
Number of days with rain (>1mm)	10
Number of days with rain (>10mm)	3
Number of days with rain (>20mm)	1
Number of days with >25km/h wind gust	23
Number of days with >50km/h wind gust	0
Number of days with >60km/h wind gust	0

## 3.2 Noise and Vibration Monitoring

Noise monitoring is required under Conditions L5.9 and L5.10 to validate noise predications for work undertaken outside of standard construction hours in accordance with the construction noise and vibration assessment and monitoring plan. Table 4 provides a summary of noise monitoring events during the reporting period. Detailed results and comments are presented in Appendix B.

TABLE 4 SUMMARY OF NOISE MONITORING FOR REPORTING PERIOD

Date	Monitoring Location	Attended / Continuous	Description
12/01/24	Within site boundary	Continuous	Within project boundary adjacent to Phillip Street
30/01/2024	34-36 Phillip St, St Marys NSW 2760	Attended	Busy street opposite PLM site
30/01/2024	2 Station St, St Marys NSW 2760	Attended	Quiet street adjacent to PLM light vehicle route

## 3.3 Water Monitoring

### 3.3.1 Discharge to water

Discharge of water from one sediment basin, EPA Point 1, occurred during this reporting period.

The water treatment plant, EPA Point 2, is required to be sampled daily during discharge events. During this reporting period, the WTP discharged to stormwater 0 times.

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Basins and discharge points are summarised in Table 5 and monitoring results included in Appendix C.

### **3.3.2 Surface water monitoring**

As per Condition E2.1 fortnightly sampling is required for the receiving waterway at locations upstream, downstream and adjacent to SSTOM-002 discharge point. The surface water quality results are included in Appendix D.

TABLE 5 MONITORING/DISCHARGE POINTS AND AREAS

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



## 3.4 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.

# Appendices

## Appendix A Weather Observations

Date	Temperature		Rainfall	Wind Observations			Morning (9am) Weather Observation					Afternoon (3pm) Weather Observation				
	Minimum (°C)	Maximum (°C)	In the 24 hours to 9am (mm)	Direction of maximum wind gust	Speed of maximum wind gust (km/h)	Time of maximum wind gust	Temperature (°C)	9am relative humidity (%)	Wind direction	Wind speed (km/h)	9am MSL pressure (hPa)	Temperature (°C)	9am relative humidity (%)	Wind direction	Wind speed (km/h)	3pm MSL pressure (hPa)
1/01/2024	16.8	23.3	1.2	ENE	26	12:45	20.9	82	NW	4	1023.5	21.2	85		Calm	1020.9
2/01/2024	19.1	28.9	1	E	31	18:51	23.1	76	NE	2	1020.3	27.9	59	E	13	1016.6
3/01/2024	18.5	32	0	ESE	28	13:36	23.6	71	ENE	4	1017.4	27.5	56	ESE	19	1013.7
4/01/2024	18.7	29.3	1	SE	28	12:05	23.4	83	WSW	6	1015.5	22.5	82	E	11	1016.8
5/01/2024	18.5	25.2	7.8	SE	31	10:41	20.6	76	SSW	17	1022.2	23.8	56	SSE	13	1021.2
6/01/2024	14.6	27.5	0.2	ESE	33	15:46	21.6	67	SSW	7	1023	25.2	53	ENE	15	1019.8
7/01/2024	16.3	30.6	0	ENE	33	17:28	22.4	69	N	7	1019.5	29.9	52	NE	15	1014.6
8/01/2024	19.4	25.1	0	NE	28	12:50	22.4	72	E	6	1012	23.3	90	NNE	15	1009.4
9/01/2024	17.4	29.4	6.4	SSE	31	14:16	24.2	75	ESE	6	1012.9	25.8	63	E	19	1011.6
10/01/2024	20.1	31.3	0.2	N	26	14:07	23.4	77	ESE	7	1015.1	30.1	57	NNE	17	1012.3
11/01/2024	20	32.2	0	ESE	37	15:15	24	86	NE	7	1019	29.8	58	ESE	22	1018.6
12/01/2024	21.2	29.6	15	ENE	33	11:33	24.2	78		Calm	1021.5	28.8	60	ENE	19	1018.5
13/01/2024	18.3	33.8	3	E	28	15:27	24.4	77	E	4	1016.8	32.3	43	NNW	6	1012.4
14/01/2024	20.3	27.8	0	SE	37	12:49	23.4	68	SSW	11	1018	22.4	97	S	15	1017.8
15/01/2024	17.6	22.6	23	SSW	33	10:03	17.8	99	SSW	17	1022.4	21.4	72	S	15	1021.8
16/01/2024	16.7	25.1	3	ENE	30	13:39	20.5	86	WSW	6	1018.9	21	85	ENE	15	1015
17/01/2024	20.4	27.5	5.2	WSW	30	15:46	23.4	83	ENE	9	1010	25.9	78	NNW	6	1005.4
18/01/2024	20	31.6	15	WNW	43	12:44	24.5	85	NNE	4	1002.9	30.8	37	WNW	28	1001.4
19/01/2024	15.2	30.7	0.2	ESE	33	16:47	22.3	46	SW	7	1007.2	30.1	33	E	4	1006.4
20/01/2024	20.1	27.9	0	E	31	14:55	22.9	70	NE	15	1012.2	26.6	62	NE	17	1008.8
21/01/2024	18.2	38.8	0	W	46	16:20	23.8	74	NE	2	1006.6	37.3	29	N	17	1001.8
22/01/2024	20	24.8	0	SSE	26	8:25	20.5	72	SE	13	1012	23.3	58	ESE	15	1012.3
23/01/2024	17.4	27.1	0.2	ENE	30	16:52	20.4	81	ESE	6	1016.3	26.3	58	E	15	1013.9
24/01/2024	14.9	30.3	0	NNE	22	10:38	21.7	69	N	7	1013.7	29.7	52	N	7	1010.2
25/01/2024	21.5	31.1	0	ENE	24	13:47	26.4	74	NNE	6	1009.4	30.1	62	E	15	1008
26/01/2024	20.5	38	0	NW	46	13:07	29.3	66	SW	4	1001.1	36.8	28	WNW	39	999.6
27/01/2024	18.8	24.3	3.2	NE	20	15:49	19.7	100	NNW	4		21.5	100	ENE	9	
28/01/2024	16.8	29.1	0	SE	28	15:05	22.3	100	S	11		27.8	61	ESE	11	
29/01/2024	19.1	33.1	0.4	SSE	28	16:13	24.2	72	WSW	4	1013	32.1	51	NE	11	1008.2
30/01/2024	22.9	27	0.2	SSE	22	9:14	25.1	83	S	9	1013.8	26.3	70	SE	6	1012.7
31/01/2024	20.9	27.8	2.4	SE	26	17:16	23.1	87	ESE	6	1013.4	25.4	73	SE	9	1012.1

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 Noise Monitoring

Date	Time	Construction Activity	Activity Location	Monitoring Location	NML (dBA)	Predicted (dBA)	Recorded LA <sub>eq(15min)</sub> (dBA)	L <sub>Amax</sub>	Exceedance of Predicted (dBA)	Exceedance of Predicted	Comments
12/01/2024	18:30 pm	Concrete pouring OOH	SSTOM St Marys	SiteHive located within project boundary adjacent to Phillip Street	42	63	58.95	73.4	-4.05	No	Predicted noise is provided from the worst impacted receiver identified in the DNVIS, whereas this monitoring point was situated closer to the works, and inside the existing noise walls, providing a very conservative result.
30/01/2024	01:59 pm	Concrete pouring	SSTOM St Marys	2 Station St, St Marys NSW 2760	47	69	59.1	72.3	-9.9	No	Verification noise monitoring carried out during standard construction hours to support extension of EPL Cond L5.10. Construction activities were dominant noise source.
30/01/2024	02:22 pm	Concrete pouring	SSTOM St Marys	34-36 Phillip St, St Marys NSW 2760	47	69	61.0	76.3	-8	No	Verification noise monitoring carried out during standard construction hours to support extension of EPL Cond L5.10. Extraneous activities primarily consisting of light vehicles were dominant noise source.

## Appendix C Discharge to water

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	08/01/2024	PMJV-ENV-DWP-8	Not visible	7.76	40.0
SSTOM-001	Sediment Basin	Discharge into stabilised spillway	24/01/2024	PMJV-ENV-DWP-9	Not visible	8.10	28.5

## Appendix D Surface Water Monitoring

Analyte	SSTOM-002 Surface Water South Creek			
	Post Rain Event	No		
	Date	04/01/2024		
	Unit	Upstream	Downstream	Adjacent
<b>pH</b>	pH	7.21	7.65	7.59
<b>Aluminium</b>	mg/L	0.95	0.76	0.79
<b>Electrical Conductivity @ 25°C</b>	µS/cm	921	928	921
<b>Total Suspended Solids</b>	mg/L	30	23	24
<b>Copper</b>	mg/L	0.005	0.003	0.012
<b>Ammonia</b>	mg/L	0.95	0.76	0.79
<b>Nitrogen (total)</b>	mg/L	1.1	0.9	0.9
<b>Oil and Grease</b>	Visible/Not visible	Not visible	Not visible	Not visible
<b>Phosphorus (total)</b>	mg/L	0.11	0.10	0.10
<b>Zinc</b>	mg/L	0.009	0.006	0.011
<b>Chromium (VI) Compounds</b>	mg/L	<0.01	<0.01	<0.01

NOTE: Error from the lab as samples collected were tested after the normal waiting time for samples.



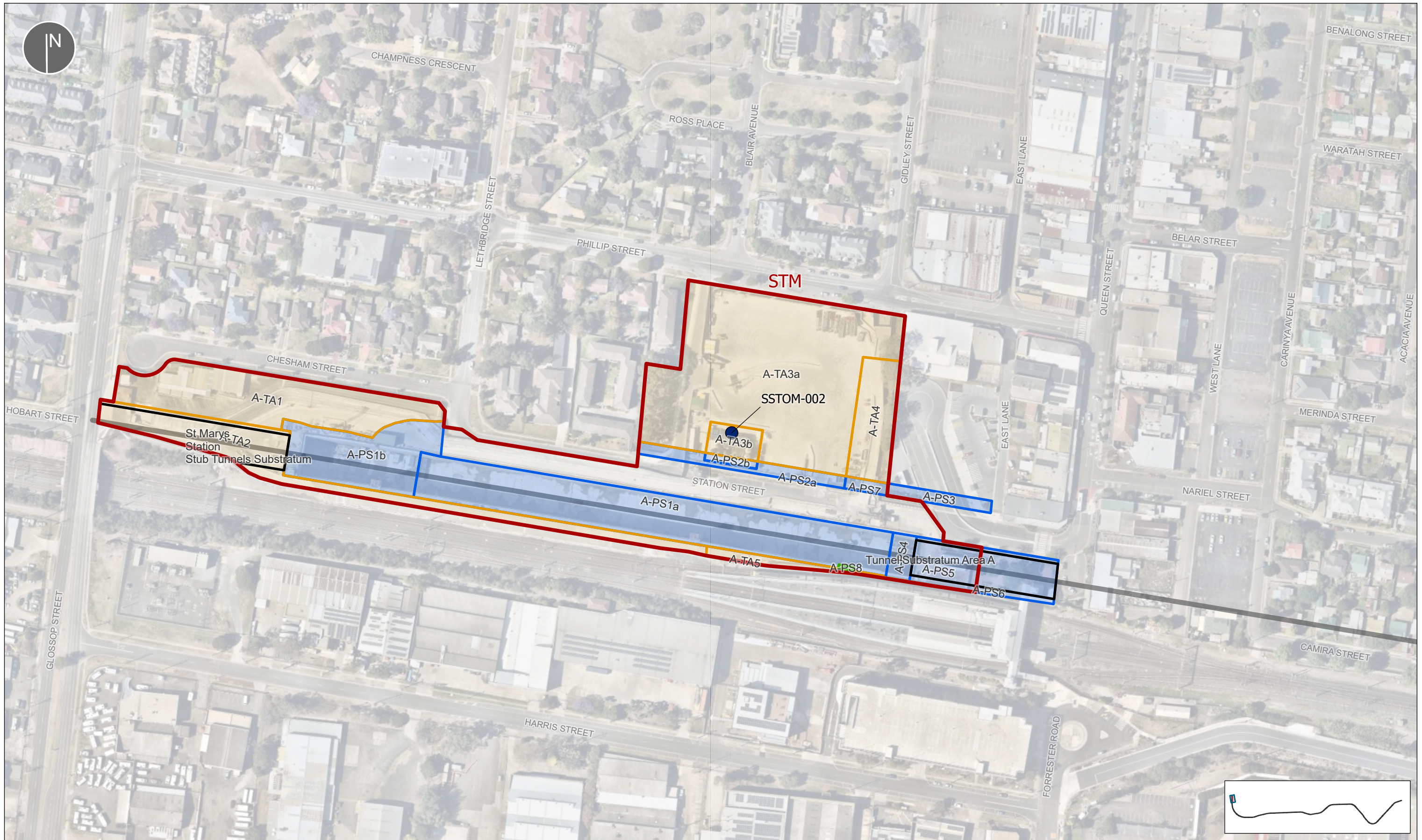
Analyte	SSTOM-002 Surface Water South Creek			
	Post Rain Event	Yes		
	Date	18/01/2024		
	Unit	Upstream	Downstream	Adjacent
pH	pH	7.23	7.74	7.72
Aluminium	mg/L	1.72	1.22	1.66
Electrical Conductivity @ 25°C	µS/cm	688	677	674
Total Suspended Solids	mg/L	59	59	57
Copper	mg/L	0.005	0.005	0.005
Ammonia	mg/L	0.06	0.06	0.06
Nitrogen (total)	mg/L	0.9	1.1	1.1
Oil and Grease	Visible/Not visible	Not visible	Not visible	Not visible
Phosphorus (total)	mg/L	0.13	0.13	0.27
Zinc	mg/L	0.019	0.014	0.015
Chromium (VI) Compounds	mg/L	<0.01	<0.01	<0.01

Analyte	SSTOM-002 Surface Water South Creek			
	Post Rain Event	Yes		
	Date	31/01/2024		
	Unit	Upstream	Downstream	Adjacent
pH	pH	7.88	7.59	7.95
Aluminium	mg/L	0.66	0.71	3.30
Electrical Conductivity @ 25°C	µS/cm	896	893	747
Total Suspended Solids	mg/L	25	20	139
Copper	mg/L	0.004	0.004	0.016
Ammonia	mg/L	0.07	0.06	0.04
Nitrogen (total)	mg/L	0.8	1.3	0.9
Oil and Grease	Visible/Not visible	Not visible	Not visible	Not visible
Phosphorus (total)	mg/L	0.10	0.13	0.16
Zinc	mg/L	0.012	0.011	0.058
Chromium (VI) Compounds	mg/L	<0.01	<0.01	<0.01

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## **Appendix E    Premise Maps - January**





LEGEND		
	EPL Premise Boundary	
	Metro alignment	
	Watercourse	
	Site Access Schedule	
		Aerial Stratum
		Project Site
		Substratum
		Temporary Area
		Water Treatment Plant

TITLE  
EPL 21807 PREMISE BOUNDARY

SCALE  
1:2,000

SHEET  
1 of 6

COORDINATE SYSTEM  
GDA2020 MGA Zone 56

0 40 80m

NOTES	
EPL Premise Boundary Map	

PROJECT	CLIENT
Sydney Metro – Western Sydney Airport - SSTM	Sydney Metro

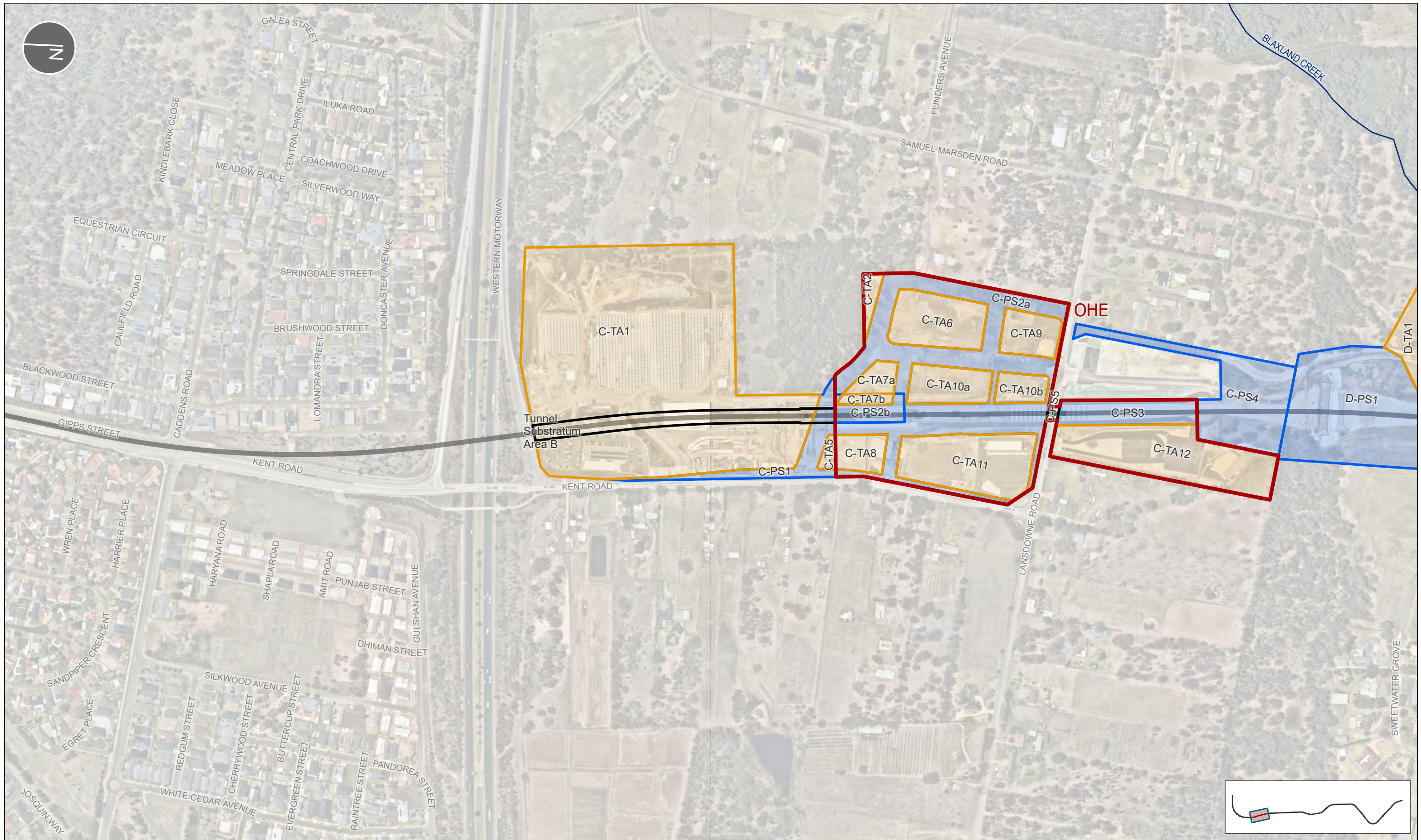
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29/01/2024	MS

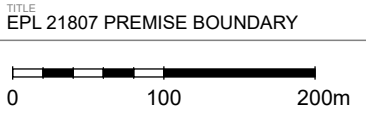
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12	22.12.2023	Premise Map update
13	17.01.2024	Premise Map update
14	29.01.2024	Premise Map update

TITLE	SCALE	DRAWN BY	APPROVED	MAP #	REV
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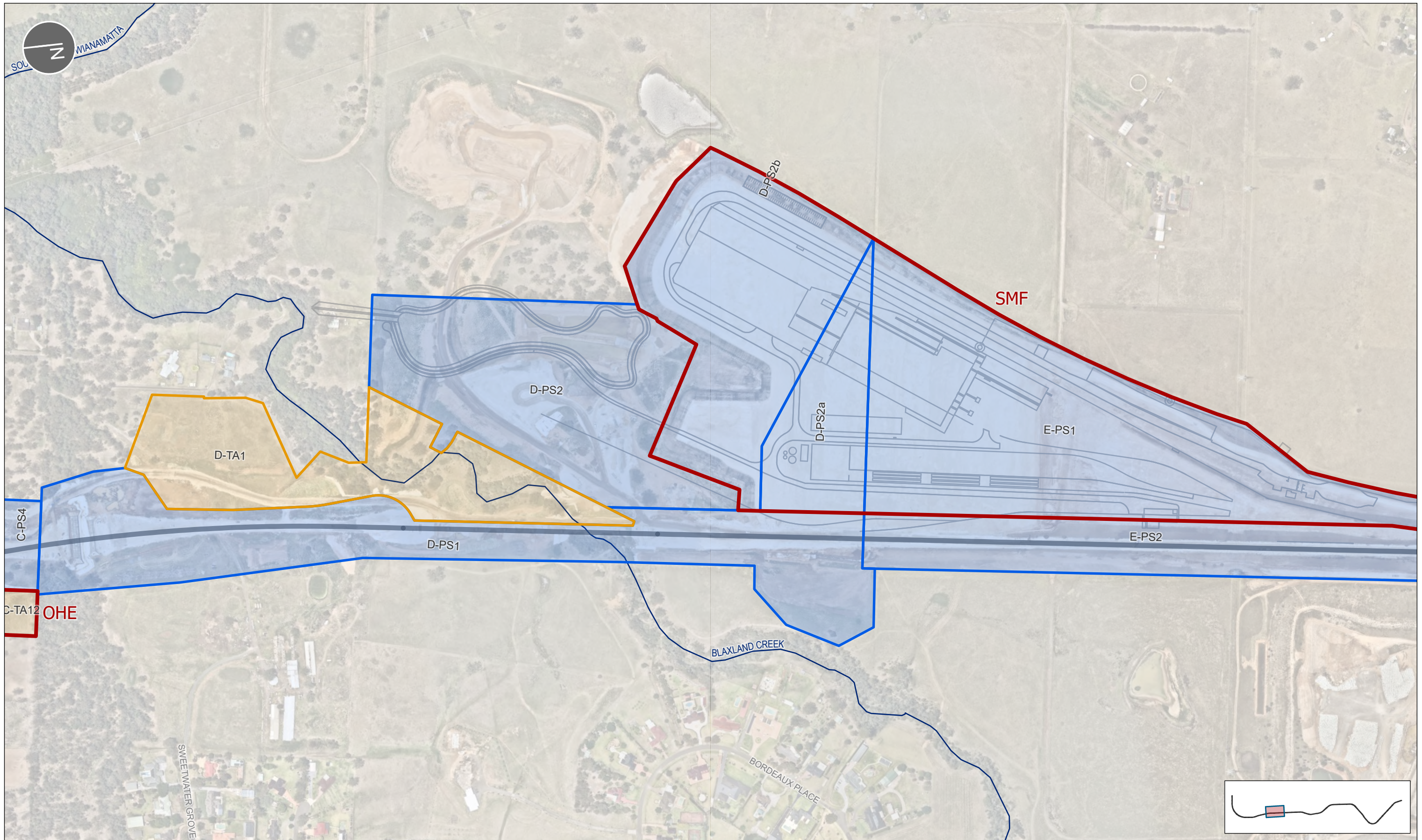


LEGEND	
	EPL Premise Boundary
	Metro alignment
	Watercourse
	Project Site
	Substratum
	Temporary Area
	Site Access Schedule

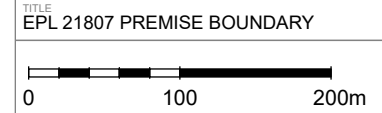


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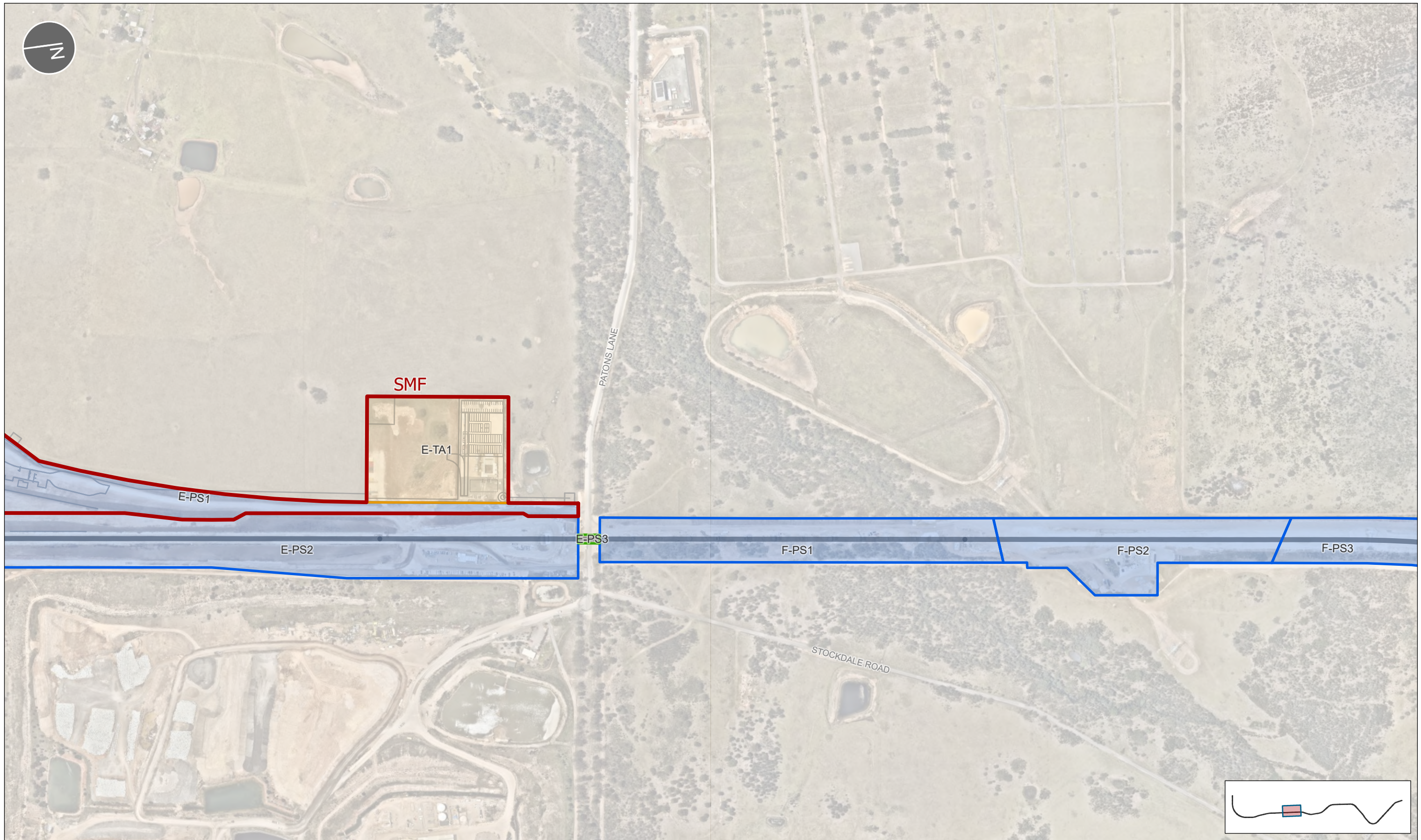


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	EPL Premise Boundary
	Metro alignment
	Watercourse
	Project Site
	Temporary Area

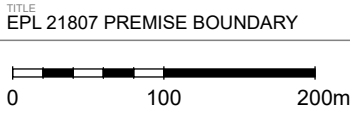


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TITLE		PROJECT		CLIENT	
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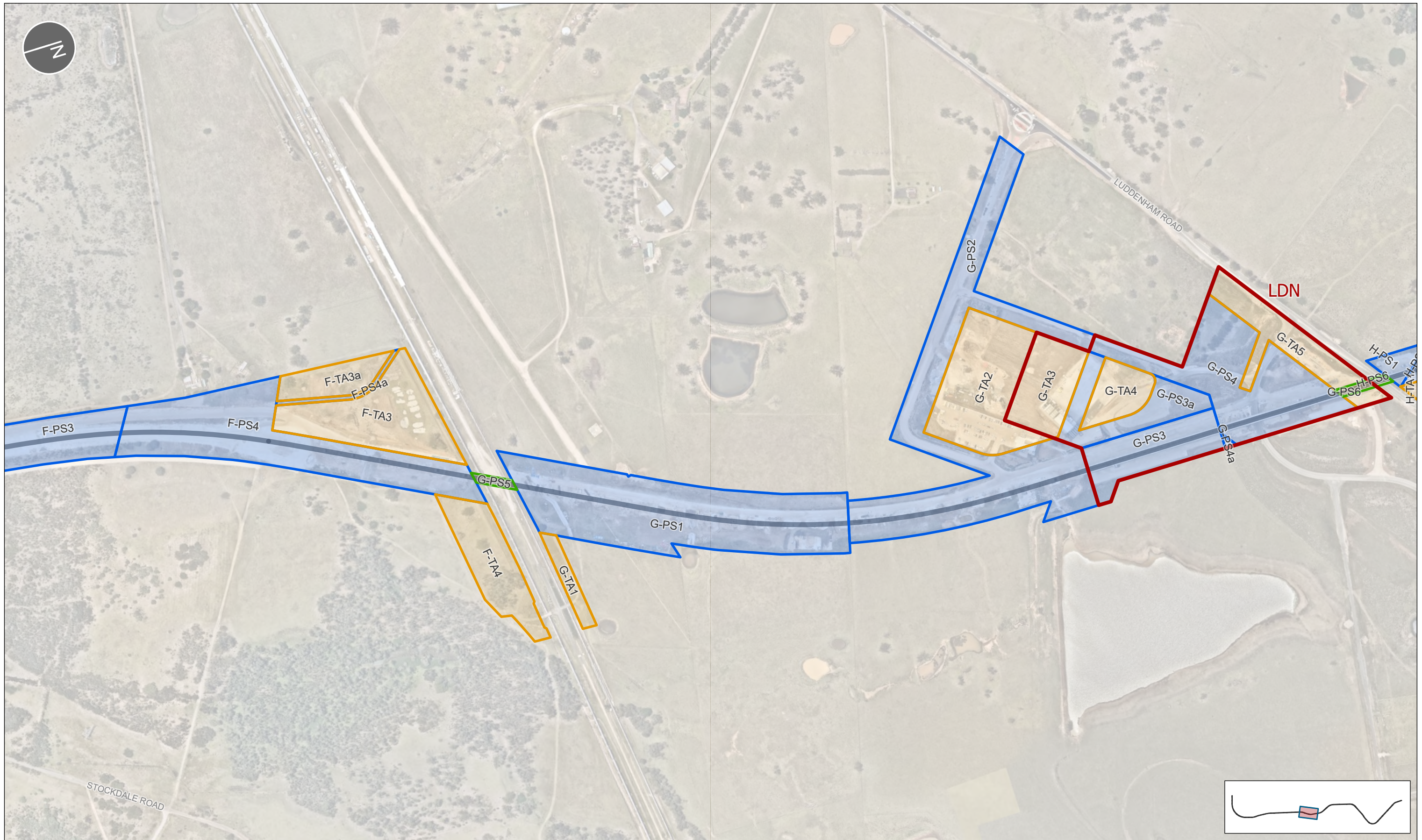
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	EPL Premise Boundary
	Metro alignment
	Watercourse
	Site Access Schedule
	Aerial Stratum
	Project Site
	Temporary Area



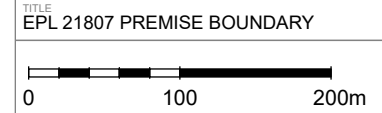
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		12	22.12.2023		Premise Map update
		13	17.01.2024		Premise Map update
		14	29.01.2024		Premise Map update

TITLE EPL 21807 PREMISE BOUNDARY		PROJECT Sydney Metro – Western Sydney Airport - SSTOM		CLIENT Sydney Metro	
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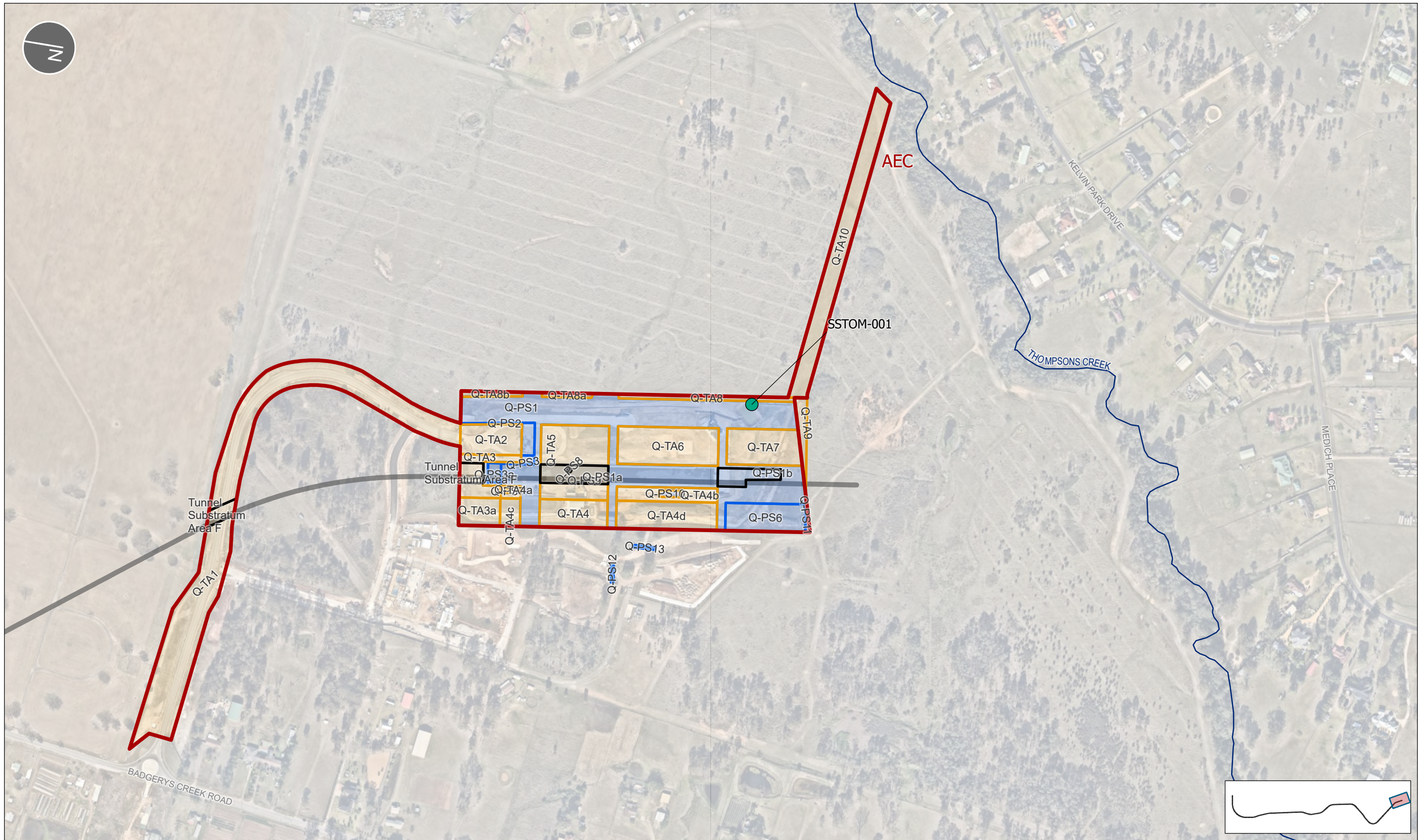


LEGEND	
	EPL Premise Boundary
	Metro alignment
	Watercourse
	Aerial Stratum
	Project Site
	Temporary Area



NOTES		PROJECT		CLIENT	
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**LEGEND**

EPL Premise Boundary	Project Site
Metro alignment	Substratum
Watercourse	Temporary Area

**Discharge Points**

Temporary Sediment Basin



TITLE  
EPL 21807 PREMISE BOUNDARY

SCALE  
1:5,000

SHEET  
6 of 6

0 100 200m

NOTES  
EPL Premise Boundary Map

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14	29.01.2024	Premise Map update

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DATE 29/01/2024	

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DRAWN BY DD	REVIEW MS	
DATE 29/01/2024		