

ACCIONA Construction – Western Harbour Tunnel

EPL 21791 Monitoring Report

Reporting Period: June 2025



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1. Introduction

1.1 Background

The Western Harbour Tunnel and Warringah Freeway Upgrade project comprises a new motorway tunnel connection across Sydney Harbour, and an upgrade of the Warringah Freeway to integrate the new motorway infrastructure with the existing road network and to enable the potential future connection of the Beaches Link and Gore Hill Freeway Connection project.

The Western Harbour Tunnel and Warringah Freeway Upgrade Environmental Impact Statement dated January 2020 (the EIS) was prepared to assess the impacts of construction and operation of the Western Harbour Tunnel and Warringah Freeway Upgrade project. A Response to Submissions report dated September 2020 (the RtS) was prepared in response to submissions received on the EIS. The EIS environmental management measures were revised and included in Part D of the RtS report.

The Western Harbour Tunnel and Warringah Freeway Upgrade project is classified as State Significant Infrastructure under Part 5, Division 5.2 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act) and Clause 94 of the State Environmental Planning Policy (Infrastructure) 2007. The Western Harbour Tunnel and Warringah Freeway Upgrade project was declared Critical State Significant Infrastructure (CSSI) by the NSW Minister for Planning and Public Spaces (the Minister) on 9 November 2020 under Section 5.13 under the EP&A Act and Clause 16 of the State Environmental Planning Policy (State and Regional Development) 2011.

The Western Harbour Tunnel and Warringah Freeway Upgrade project was approved by the Minister on 21 January 2021.

1.2 Project description

The Western Harbour Tunnel and Warringah Freeway Upgrade project is being constructed in three stages, as described in the Transport for New South Wales (TfNSW) Staging Report, summarised below:

- **Stage 1** – Early and Enabling Works
- **Stage 2** – Warringah Freeway Upgrade (WFU)
- **Stage 3** – Western Harbour Tunnel Project (WHT): The WHT will connect the M4-M5 Link in Rozelle, to the Warringah Freeway at North Sydney/Cammeray, delivered over three stages:
 - **Stage 3A – WHT Southern Tunnels:** comprising of twin bored tunnels between the M4-M5 Link Rozelle Interchange and Birchgrove. Works have commenced on this stage.
 - **Stage 3B – Approach and Integration:**
 - Integrate with the underground WHT Southern Tunnels Works near Birchgrove (Chainage 2750) on the southern zone, aka the Southern approach and integration.
 - integrate with the Warringah Freeway Upgrade works in the north near Cammeray, incorporating a north bound off-ramp at Falcon Street, southbound on-ramp at Berry Street, aka the northern approach and integration.
 - **Stage 3C – Harbour Crossing**
 - The crossing of Sydney Harbour between Birchgrove and Balls Head, Waverton.

TfNSW has engaged ACCIONA to design and construct stage 3B & 3C of the WHT and is referred to as Western Harbour Tunnel Package 2.

2. Environmental Protection Licence and Reporting Requirements

ACCIONA obtained the Environment Protection Licence (EPL No. 21791) from the NSW Environment Protection Authority for the Western Harbour Tunnel Package 2. The licence is for construction works relating to Road Construction as defined under Schedule 1 of the *Protection of the Environment Operations Act, 1997* (POEO Act).

The following report details environmental monitoring undertaken during this reporting period conducted in accordance with the EPL. The license describes monitoring and reporting requirements for the Western Harbour Tunnel works and specifically provides discharge criteria for temporary water treatment plant water quality. Noise monitoring can also be requested to be undertaken by an EPA authorized officer and would be documented in this report if required.

The EPL can be found online at the EPA Website at the link below:

<https://app.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=21791&id=21791&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued>

Monitoring Type: Water Discharge Monitoring

Discharge/ Monitoring Point 1 – Ridge Street Site (WHT 9)

Surface water discharge (L2.4) Special Frequency 1

** Special Frequency 1: less than 24 hours prior to a controlled discharge and daily for any continued controlled discharge, when it is safe to do so and when rainfall causes a discharge from a temporary water treatment plant (ie. holding tank) which has not been emptied within the design management period following cessation of a rainfall event when it is safe to do so.*

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
1	14/08/2023	51	24.6	6.5 - 8.5	6.67	Not Visible	None	Compliant
2	16/08/2023	51	2.6	6.5 - 8.5	8.05	Not Visible	None	Compliant
3	31/08/2023	51	2.7	6.5 - 8.5	8.14	Not Visible	None	Compliant
4	20/10/2023	51	9.9	6.5-8.5	7.24	Not Visible	None	Compliant
5	05/11/2023	51	49	6.5-8.5	7.79	Not Visible	None	Compliant
6	07/11/2023	51	5.7	6.5-8.5	8.1	Not Visible	None	Compliant
7	09/11/2023	51	0	6.5-8.5	7.97	Not Visible	None	Compliant
8	10/11/2023	51	0	6.5-8.5	7.78	Not Visible	None	Compliant
9	11/11/2023	51	0	6.5-8.5	7.87	Not Visible	None	Compliant
10	17/11/2023	51	2.2	6.5-8.5	7.64	Not Visible	None	Compliant
11	25/11/2023	51	38.7	6.5-8.5	7.65	Not Visible	None	Compliant
12	29/11/2023	51	22.5	6.5-8.5	7.68	Not Visible	None	Compliant
13	30/11/2023	51	21.9	6.5-8.5	7.82	Not Visible	None	Compliant
14	01/12/2023	51	21.6	6.5-8.5	8.06	Not Visible	None	Compliant
15	02/12/2023	51	16.9	6.5-8.5	7.84	Not Visible	None	Compliant
16	04/12/2023	51	15.8	6.5-8.5	7.41	Not Visible	None	Compliant
17	15/12/2023	51	0.2	6.5-8.5	7.55	Not Visible	None	Compliant
18	20/12/2023	51	1.1	6.5-8.5	7.70	Not Visible	None	Compliant
19	21/12/2023	51	1.1	6.5-8.5	8.24	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
20	26/12/2023	51	11.6	6.5-8.5	7.21	Not Visible	None	Compliant
21	28/12/2023	51	11.1	6.5-8.5	7.19	Not Visible	None	Compliant
22	5/1/2024	51	16.5	6.5-8.5	7.29	Not Visible	None	Compliant
23	8/1/2024	51	2.5	6.5-8.5	7.31	Not Visible	None	Compliant
24	15/1/2024	51	1.3	6.5-8.5	7.55	Not Visible	None	Compliant
25	16/1/2024	51	7.9	6.5-8.5	7.08	Not Visible	None	Compliant
26	18/1/2024	51	6	6.5-8.5	7.91	Not Visible	None	Compliant
27	19/1/2024	51	1.2	6.5-8.5	6.7	Not Visible	None	Compliant
28	23/1/2024	51	1.3	6.5-8.5	7.52	Not Visible	None	Compliant
29	2/02/2024	51	1.0	6.5-8.5	7.79	Not Visible	None	Compliant
30	6/02/2024	51	0	6.5-8.5	6.56	Not Visible	None	Compliant
31	7/02/2024	51	0	6.5-8.5	7.24	Not Visible	None	Compliant
32	12/02/2024	51	0	6.5-8.5	8.36	Not Visible	None	Compliant
33	16/02/2024	51	0.4	6.5-8.5	7.91	Not Visible	None	Compliant
34	17/02/2024	51	2	6.5-8.5	7.95	Not Visible	None	Compliant
35	19/02/2024	51	7	6.5-8.5	8.34	Not Visible	None	Compliant
36	20/02/2024	51	11.3	6.5-8.5	7.81	Not Visible	None	Compliant
37	21/02/2024	51	5.7	6.5-8.5	7.47	Not Visible	None	Compliant
38	22/02/2024	51	5.9	6.5-8.5	8.21	Not Visible	None	Compliant
39	24/02/2024	51	21.3	6.5-8.5	7.86	Not Visible	None	Compliant
40	27/02/2024	51	4.3	6.5-8.5	7.6	Not Visible	None	Compliant
41	29/02/2024	51	3.4	6.5-8.5	7.5	Not Visible	None	Compliant
42	2/03/2024	51	4.1	6.5 - 8.5	7.75	Not Visible	None	Compliant
43	4/03/2024	51	2.6	6.5 - 8.5	8.00	Not Visible	None	Compliant
44	7/03/2024	51	3.9	6.5 - 8.5	8.35	Not Visible	None	Compliant
45	8/03/2024	51	2.9	6.5-8.5	8.27	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
46	18/03/2024	51	0.3	6.5-8.5	6.89	Not Visible	None	Compliant
47	28/03/2024	51	6.9	6.5-8.5	6.62	Not Visible	None	Compliant
48	2/04/2024	51	1.4	6.5-8.5	7.36	Not Visible	None	Compliant
49	4/04/2024	51	9.3	6.5-8.5	7.55	Not Visible	None	Compliant
50	5/04/2024	51	13.7	6.5-8.5	7.53	Not Visible	None	Compliant
51	6/04/2024	51	4.4	6.5-8.5	7.32	Not Visible	None	Compliant
52	8/04/2024	51	5.6	6.5-8.5	7.40	Not Visible	None	Compliant
53	9/04/2024	51	7.9	6.5-8.5	6.53	Not Visible	None	Compliant
54	11/04/2024	51	6.4	6.5-8.5	7.26	Not Visible	None	Compliant
55	17/04/2024	51	0.2	6.5-8.5	7.43	Not Visible	None	Compliant
56	18/04/2024	51	2.9	6.5-8.5	7.63	Not Visible	None	Compliant
57	19/04/2024	51	4	6.5-8.5	7.86	Not Visible	None	Compliant
58	22/04/2024	51	3.3	6.5-8.5	8.24	Not Visible	None	Compliant
59	29/04/2024	51	0	6.5-8.5	8.36	Not Visible	None	Compliant
60	30/04/2024	51	2	6.5-8.5	8.16	Not Visible	None	Compliant
61	01/05/2024	51	4.2	6.5-8.5	8.10	Not Visible	None	Compliant
62	02/05/2024	51	1.1	6.5-8.5	8.21	Not Visible	None	Compliant
63	03/05/2024	51	0.0	6.5-8.5	8.07	Not Visible	None	Compliant
64	04/05/2024	51	7.0	6.5-8.5	8.07	Not Visible	None	Compliant
65	06/05/2024	51	14.6	6.5-8.5	8	Not Visible	None	Compliant
66	08/05/2024	51	1.1	6.5-8.5	8.28	Not Visible	None	Compliant
67	09/05/2024	51	0.0	6.5-8.5	8.17	Not Visible	None	Compliant
68	10/05/2024	51	4.7	6.5-8.5	8.14	Not Visible	None	Compliant
69	13/05/2024	51	0.0	6.5-8.5	7.29	Not Visible	None	Compliant
70	15/05/2024	51	0.0	6.5-8.5	8.17	Not Visible	None	Compliant
71	17/05/2024	51	0.0	6.5-8.5	7.66	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
72	20/05/2024	51	0.0	6.5-8.5	7.02	Not Visible	None	Compliant
73	21/05/2024	51	0.0	6.5-8.5	7.24	Not Visible	None	Compliant
74	24/05/2024	51	7.6	6.5-8.5	7.69	Not Visible	None	Compliant
75	27/05/2024	51	0.0	6.5-8.5	8.00	Not Visible	None	Compliant
76	3/06/2024	51	0	6.5-8.5	8.42	Not Visible	None	Compliant
77	4/06/2024	51	2.1	6.5-8.5	7.89	Not Visible	None	Compliant
78	5/06/2024	51	0	6.5-8.5	7.71	Not Visible	None	Compliant
79	7/06/2024	51	0	6.5-8.5	7.82	Not Visible	None	Compliant
80	11/06/2024	51	0	6.5-8.5	8.24	Not Visible	None	Compliant
81	12/06/2024	51	0	6.5-8.5	7.57	Not Visible	None	Compliant
82	14/06/2024	51	0	6.5-8.5	8.47	Not Visible	None	Compliant
83	17/06/2024	51	0	6.5-8.5	8.06	Not Visible	None	Compliant
84	18/06/2024	51	0	6.5-8.5	8.33	Not Visible	None	Compliant
85	19/06/2024	51	0	6.5-8.5	7.74	Not Visible	None	Compliant
86	21/06/2024	51	15.7	6.5-8.5	8.03	Not Visible	None	Compliant
87	25/06/2024	51	0	6.5-8.5	8.12	Not Visible	None	Compliant
88	26/06/2024	51	0	6.5-8.5	8.31	Not Visible	None	Compliant
89	27/06/2024	51	0	6.5-8.5	8.16	Not Visible	None	Compliant
90	28/06/2024	51	0	6.5-8.5	7.47	Not Visible	None	Compliant
91	2/7/2024	51	0	6.5-8.5	7.29	Not Visible	None	Compliant
92	4/7/2024	51	0	6.5-8.5	7.77	Not Visible	None	Compliant
93	5/7/2024	51	0	6.5-8.5	6.59	Not Visible	None	Compliant
94	8/7/2024	51	0	6.5-8.5	7.23	Not Visible	None	Compliant
95	9/7/2024	51	0	6.5-8.5	7.61	Not Visible	None	Compliant
96	10/7/2024	51	0	6.5-8.5	7.68	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
97	12/7/2024	51	0	6.5-8.5	8.17	Not Visible	None	Compliant

*No Surface water discharge occurred from May 2023 – July 2023 therefore no monitoring was undertaken.

** Temporary water treatment plant was decommissioned from site July 2023. No further discharges have occurred.

*** Under approved EPL variation (02.05.2025) notice number 1647732. Discharge point 1 has been removed from EPL license 21791.

Water Monitoring Requirements (M2.2) Special Frequency 2

* Special Frequency 2: at least one (1) sample from any temporary water treatment plant (ie. holding tank) where a controlled discharge is undertaken within a calendar month period. In the event that two (2) or more controlled discharges are undertaken from a temporary water treatment plant (holding tank) within a calendar month period, a minimum total of two (2) samples must be collected from each discharging temporary water treatment plant (ie. holding tank).

No.	Date	Ammonia	Arsenic	Chromium	Mercury	Nickel	Nitrate + Nitrite (oxidised nitrogen)	Phosphorus (total)	Aluminum (dissolved)	Aluminum (total)	Cadmium	Copper	Lead	Zinc	pH	Oil & Grease	Turbidity
		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pH	Visible	NTU
1	08/08/23	0.039	1	2	<0.05	2	700	50	30	730	<0.1	3	2	5	6.66	Not Visible	31
2	14/08/23	0.15	2	11	<0.05	1	700	10	120	1000	<0.1	6	2	4	6.67	Not Visible	24.6
3	20/10/23	0.12	2	10	0.1	1	2000	50	20	870	<0.1	3	1	7	7.24	Not Visible	9.9
4	5/11/23	0.12	1	<1	0.53	2	760	50	20	730	<0.1	2	1	13	7.79	Not Visible	49
5	7/11/23	0.08	<1	18	<0.05	<1	1000	<50	20	140	<0.1	1	<1	1	8.1	Not Visible	5.7
6	02/12/23	0.03	<1	7	<0.05	3	1300	<50	10	130	<0.1	2	<1	3	7.84	Not Visible	16.9
7	04/12/23	0.03	<1	5	<0.05	1	1300	<50	<10	30	<0.1	1	<1	6	7.41	Not Visible	15.8
8	15/1/24	0.03	<1	<1	<0.05	3	1100	<50	20	570	<0.1	<1	<1	5	7.29	Not Visible	16.5
9	16/1/24	0.11	<1	2	<0.05	<1	1400	<0.05	34000	48000	<0.1	2	2	9	7.08	Not Visible	7.9
10	18/1/24	0.03	<1	<1	<0.05	2	1000	<0.05	20	1800	<0.1	2	<1	4	7.91	Not Visible	6
11	6/02/24	0.64	<1	9	<0.05	2	1900	<50	230	280	<0.1	4	<1	9	6.56	Not Visible	0
12	7/02/24	0.72	1	24	<0.5	3	2900	<50	50	50	<0.1	9	<1	2	7.24	Not Visible	0
13	12/02/24	0.21	2	17	<0.05	2	2200	<50	80	110	<0.1	8	<1	9	8.36	Not Visible	0

No.	Date	Ammonia	Arsenic	Chromium	Mercury	Nickel	Nitrate + Nitrite (oxidised nitrogen)	Phosphorus (total)	Aluminum (dissolved)	Aluminum (total)	Cadmium	Copper	Lead	Zinc	pH	Oil & Grease	Turbidity
		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pH	Visible	NTU
14	21/02/24	0.61	1	9	<0.05	6	1970	<50	20	230	<0.1	7	<1	10	7.47	Not Visible	5.7
15	18/03/24	0.20	1	8	0.1	6	770	5	10	20	<0.1	1	<1	9	6.89	Not Visible	0.3
16	28/03/24	0.33	<1	4	0.1	6	1380	5	10	2600	<0.1	7	<1	11	6.62	Not Visible	6.9
17	02/04/24	0.31	<1	2	0.1	2	2200	5	10	10	<0.01	<1	<1	5	7.36	Not Visible	1.4
18	08/04/24	Misplaced Data															
19	01/05/24	0.67	<1	8	<0.05	2	930	200	40	780	<0.1	<1	<1	1	8.10	Not Visible	4.2
20	02/05/24	0.36	<1	6	<0.5	1	0720	300	40	580	<0.1	<1	<1	1	8.21	Not Visible	1.1
21	03/06/24	0.17	<1	22	<0.05	<1	530	<50	<10	<10	<0.1	<1	<1	4	8.42	Not Visible	0
22	05/06/24	<1	<1	100	<0.05	3	670	50	<10	<10	<0.1	<1	<1	22	7.71	Not Visible	0
23	04/07/24	0.38	<1	11	<0.05	2	500	90	10	80	<0.1	<1	<1	9	7.77	Not Visible	0
24	08/07/24	0.28	<1	4	<0.05	<1	600	70	<10	60	<0.1	1	<1	3	7.23	Not Visible	0

** M2.2 samples were taken prior to discharge on 8/4/24 however in transit to the laboratory they were misplaced. No other M2.2 samples were taken during the month.

*** Note all data reporting units before June 2024 have been converted to ug/L from mg/L. All data to now be displayed in ug/L.

**** Note all data reported prior to June 2024 showed results of 'total;' pollutants. All data from 03/06/2024 shows data of 'dissolved' pollutants other than those specified as 'Total'.

***** Temporary water treatment plant was decommissioned from site July 2023. No further discharges have occurred.

Discharge/ Monitoring Point 2 – Cammeray Site (WHT 10)

Surface water discharge (L2.4) – Special Frequency 1

* Special Frequency 1: less than 24 hours prior to a controlled discharge and daily for any continued controlled discharge, when it is safe to do so and when rainfall causes a discharge from a temporary water treatment plant (ie. holding tank) which has not been emptied within the design management period following cessation of a rainfall event when it is safe to do so.

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
1	04/08/2023	51	49.8	6.5 - 8.5	8.25	Not Visible	None	Compliant
2	05/08/2023	51	20.3	6.5 - 8.5	8.14	Not Visible	None	Compliant
3	06/08/2023	51	34.6	6.5 - 8.5	8.31	Not Visible	None	Compliant
4	07/08/2023	51	39.8	6.5 - 8.5	7.4	Not Visible	None	Compliant
5	08/08/2023	51	47.5	6.5 - 8.5	7.18	Not Visible	None	Compliant
6	09/08/2023	51	49.0	6.5 - 8.5	7.44	Not Visible	None	Compliant
7	10/08/2023	51	18.5	6.5 - 8.5	7.11	Not Visible	None	Compliant
8	11/08/2023	51	6.3	6.5 - 8.5	8.03	Not Visible	None	Compliant
9	12/08/2023	51	45.0	6.5 - 8.5	7.61	Not Visible	None	Compliant
10	14/08/2023	51	27.6	6.5 - 8.5	7.55	Not Visible	None	Compliant
11	15/08/2023	51	45.4	6.5 - 8.5	7.49	Not Visible	None	Compliant
12	16/08/2023	51	39.1	6.5 - 8.5	7.27	Not Visible	None	Compliant
13	17/08/2023	51	30.4	6.5 - 8.5	7.16	Not Visible	None	Compliant
14	18/08/2023	51	46.7	6.5 - 8.5	7.21	Not Visible	None	Compliant
15	21/08/2023	51	4.7	6.5 - 8.5	7.77	Not Visible	None	Compliant
16	22/08/2023	51	43.4	6.5 - 8.5	7.28	Not Visible	None	Compliant
17	23/08/2023	51	41.0	6.5 - 8.5	7.13	Not Visible	None	Compliant
18	1/09/2023	51	3.8	6.5 - 8.5	7.57	Not Visible	None	Compliant
19	4/09/2023	51	29.5	6.5 - 8.5	7.41	Not Visible	None	Compliant
20	5/09/2023	51	9.1	6.5 - 8.5	7.52	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
21	8/09/2023	51	16.3	6.5 - 8.5	7.7	Not Visible	None	Compliant
22	28/09/2023	51	17.9	6.5 - 8.5	7.62	Not Visible	None	Compliant
23	5/10/2023	51	2	6.5 - 8.5	8.02	Not Visible	None	Compliant
24	27/10/2023	51	17.4	6.5 - 8.5	8.1	Not Visible	None	Compliant
25	28/10/2023	51	24.2	6.5 - 8.5	8.35	Not Visible	None	Compliant
26	30/10/2023	51	46	6.5 - 8.5	8.41	Not Visible	None	Compliant
27	4/11/2023	51	44.1	6.5 - 8.5	7.5	Not Visible	None	Compliant
28	5/11/2023	51	27.7	6.5 - 8.5	6.55	Not Visible	None	Compliant
29	6/11/2023	51	28.9	6.5 - 8.5	8.16	Not Visible	None	Compliant
30	8/11/2023	51	24.3	6.5 - 8.5	8.36	Not Visible	None	Compliant
31	10/11/2023	51	18.1	6.5 - 8.5	7.29	Not Visible	None	Compliant
32	11/11/2023	51	5.8	6.5 - 8.5	7.44	Not Visible	None	Compliant
33	13/11/2023	51	30.1	6.5 - 8.5	7.45	Not Visible	None	Compliant
34	14/11/2023	51	5.8	6.5 - 8.5	7.44	Not Visible	None	Compliant
35	16/11/2023	51	29.6	6.5 - 8.5	7.58	Not Visible	None	Compliant
36	21/11/2023	51	28.8	6.5 - 8.5	8.34	Not Visible	None	Compliant
37	25/11/2023	51	28.4	6.5 - 8.5	8	Not Visible	None	Compliant
38	27/11/2023	51	45	6.5 - 8.5	7.26	Not Visible	None	Compliant
39	28/11/2023	51	34.5	6.5 - 8.5	7.08	Not Visible	None	Compliant
40	30/11/2023	51	22.7	6.5 - 8.5	7.24	Not Visible	None	Compliant
41	4/12/2023	51	34.2	6.5 - 8.5	8.11	Not Visible	None	Compliant
42	12/12/2023	51	29.1	6.5 - 8.5	7.57	Not Visible	None	Compliant
43	14/12/2023	51	47.1	6.5 - 8.5	6.85	Not Visible	None	Compliant
44	19/12/2023	51	22.2	6.5 - 8.5	8	Not Visible	None	Compliant
45	20/12/2023	51	49	6.5 - 8.5	8.49	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
46	22/12/2023	51	26.3	6.5 - 8.5	7.42	Not Visible	None	Compliant
47	26/12/2023	51	21.9	6.5 - 8.5	7.79	Not Visible	None	Compliant
48	28/12/2023	51	37.6	6.5 - 8.5	7.1	Not Visible	None	Compliant
49	31/12/2023	51	38.2	6.5 - 8.5	7.32	Not Visible	None	Compliant
50	1/1/2024	51	23.6	6.5 - 8.5	8.05	Not Visible	None	Compliant
51	5/1/2024	51	7.4	6.5 - 8.5	8.16	Not Visible	None	Compliant
52	8/1/2024	51	40.8	6.5 - 8.5	8.32	Not Visible	None	Compliant
53	11/1/2024	51	24.5	6.5 - 8.5	6.96	Not Visible	None	Compliant
54	15/1/2024	51	20.3	6.5 - 8.5	8.41	Not Visible	None	Compliant
55	17/1/2024	51	12.4	6.5 - 8.5	7.95	Not Visible	None	Compliant
56	19/12/2024	51	39.3	6.5 - 8.5	8.03	Not Visible	None	Compliant
57	22/1/2024	51	29.5	6.5 - 8.5	8.35	Not Visible	None	Compliant
58	23/1/2024	51	11.2	6.5 - 8.5	7.88	Not Visible	None	Compliant
59	24/1/2024	51	23.5	6.5 - 8.5	7.74	Not Visible	None	Compliant
60	25/1/2024	51	35.4	6.5 - 8.5	7.76	Not Visible	None	Compliant
61	29/1/2024	51	43	6.5 - 8.5	8.31	Not Visible	None	Compliant
62	6/02/2024	51	2.3	6.5 - 8.5	6.68	Not Visible	None	Compliant
63	7/02/2024	51	50.2	6.5 - 8.5	7.57	Not Visible	None	Compliant
64	9/02/2024	51	49.6	6.5 - 8.5	7.41	Not Visible	None	Compliant
65	12/02/2024	51	49.8	6.5 - 8.5	7.37	Not Visible	None	Compliant
66	13/02/2024	51	47.9	6.5 - 8.5	7.35	Not Visible	None	Compliant
67	15/02/2024	51	43	6.5 - 8.5	7.35	Not Visible	None	Compliant
68	19/02/2024	51	26.2	6.5 - 8.5	7.82	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
69	20/02/2024	51	46.3	6.5 - 8.5	7.43	Not Visible	None	Compliant
70	21/02/2024	51	25.5	6.5 - 8.5	7.2	Not Visible	None	Compliant
71	22/02/2024	51	47.5	6.5 - 8.5	8.24	Not Visible	None	Compliant
72	27/02/2024	51	22.6	6.5 - 8.5	8.32	Not Visible	None	Compliant
73	29/02/2024	51	44.6	6.5 - 8.5	8.21	Not Visible	None	Compliant
74	1/03/2024	51	18.6	6.5 - 8.5	8.45	Not Visible	None	Compliant
75	5/03/2024	51	47.5	6.5 - 8.5	8.38	Not Visible	None	Compliant
76	6/03/2024	51	45.9	6.5 - 8.5	8.44	Not Visible	None	Compliant
77	7/03/2024	51	21.6	6.5 - 8.5	8.31	Not Visible	None	Compliant
78	8/03/2024	51	42.8	6.5 - 8.5	8.23	Not Visible	None	Compliant
79	11/03/2024	51	44.1	6.5 - 8.5	8.46	Not Visible	None	Compliant
80	12/03/2024	51	42.7	6.5 - 8.5	8.42	Not Visible	None	Compliant
81	13/03/2024	51	49.6	6.5 - 8.5	7.92	Not Visible	None	Compliant
82	14/03/2024	51	46.5	6.5 - 8.5	8.29	Not Visible	None	Compliant
83	15/03/2024	51	18.2	6.5 - 8.5	8.43	Not Visible	None	Compliant
84	18/03/2024	51	23.1	6.5 - 8.5	8.41	Not Visible	None	Compliant
85	20/03/2024	51	18.7	6.5 - 8.5	8.46	Not Visible	None	Compliant
86	21/03/2024	51	24.8	6.5 - 8.5	8.45	Not Visible	None	Compliant
87	22/03/2024	51	31.4	6.5 - 8.5	8.45	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
88	25/03/2024	51	14.7	6.5 - 8.5	8.38	Not Visible	None	Compliant
89	26/03/2024	51	28.1	6.5 - 8.5	8.45	Not Visible	None	Compliant
90	27/03/2024	51	24	6.5 - 8.5	8.43	Not Visible	None	Compliant
91	2/04/2024	51	43.3	6.5 - 8.5	7.14	Not Visible	None	Compliant
92	3/04/2024	51	31.1	6.5 - 8.5	8.46	Not Visible	None	Compliant
93	4/04/2024	51	27.9	6.5 - 8.5	8.43	Not Visible	None	Compliant
94	5/04/2024	51	47.6	6.5 - 8.5	8.36	Not Visible	None	Compliant
95	8/04/2024	51	45.3	6.5 - 8.5	8.02	Not Visible	None	Compliant
96	9/04/2024	51	43.2	6.5 - 8.5	8.21	Not Visible	None	Compliant
97	10/04/2024	51	44.6	6.5 - 8.5	7.8	Not Visible	None	Compliant
98	11/04/2024	51	44.6	6.5 - 8.5	8.35	Not Visible	None	Compliant
99	12/04/2024	51	20.5	6.5 - 8.5	8.47	Not Visible	None	Compliant
100	15/04/2024	51	2.9	6.5 - 8.5	6.91	Not Visible	None	Compliant
101	16/04/2024	51	0.5	6.5 - 8.5	7.11	Not Visible	None	Compliant
102	17/04/2024	51	27.2	6.5 - 8.5	7.15	Not Visible	None	Compliant
103	18/04/2024	51	39.4	6.5 - 8.5	7.53	Not Visible	None	Compliant
104	19/04/2024	51	19.2	6.5 - 8.5	7.36	Not Visible	None	Compliant
105	23/04/2024	51	35.4	6.5 - 8.5	8.47	Not Visible	None	Compliant
106	26/04/2024	51	0	6.5 - 8.5	7.92	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
107	27/04/2024	51	30.5	6.5 - 8.5	7.68	Not Visible	None	Compliant
108	29/04/2024	51	27.6	6.5 - 8.5	7.07	Not Visible	None	Compliant
109	30/04/2024	51	12	6.5 - 8.5	7.35	Not Visible	None	Compliant
110	01/05/2024	51	5.8	6.5 - 8.5	7.4	Not Visible	None	Compliant
111	03/05/2024	51	7.5	6.5 - 8.5	6.92	Not Visible	None	Compliant
112	04/05/2024	51	0	6.5 - 8.5	7.14	Not Visible	None	Compliant
113	06/05/2024	51	42	6.5 - 8.5	7.05	Not Visible	None	Compliant
114	16/05/2024	51	34.5	6.5 - 8.5	6.53	Not Visible	None	Compliant
115	23/05/2024	51	0	6.5 - 8.5	8.47	Not Visible	None	Compliant
116	29/05/2024	51	0	6.5 - 8.5	8.11	Not Visible	None	Compliant
117	3/06/2024	51	31.8	6.5 - 8.5	8.33	Not Visible	None	Compliant
118	4/06/2024	51	9.4	6.5 - 8.5	7.91	Not Visible	None	Compliant
119	5/06/2024	51	7.36	6.5 - 8.5	7.31	Not Visible	None	Compliant
120	6/06/2024	51	3.3	6.5 - 8.5	7.66	Not Visible	None	Compliant
121	7/06/2024	51	38	6.5 - 8.5	7.72	Not Visible	None	Compliant
122	14/6/2024	51	3.9	6.5 - 8.5	7.92	Not Visible	None	Compliant
123	17/6/2024	51	7.4	6.5 - 8.5	7.41	Not Visible	None	Compliant
124	18/6/2024	51	5.6	6.5 - 8.5	7.61	Not Visible	None	Compliant
125	19/6/2024	51	18.9	6.5 - 8.5	6.63	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
126	20/6/2024	51	3.2	6.5 - 8.5	6.65	Not Visible	None	Compliant
127	21/6/2024	51	1.4	6.5 - 8.5	7.09	Not Visible	None	Compliant
128	22/6/2024	51	18.9	6.5 - 8.5	8.19	Not Visible	None	Compliant
129	24/6/2024	51	0	6.5 - 8.5	7.29	Not Visible	None	Compliant
130	25/6/2024	51	20.5	6.5 - 8.5	8.41	Not Visible	None	Compliant
131	26/6/2024	51	38.5	6.5 - 8.5	8.06	Not Visible	None	Compliant
132	27/06/2024	51	2.4	6.5 - 8.5	8.11	Not Visible	None	Compliant
133	28/6/2024	51	38.1	6.5 - 8.5	8.06	Not Visible	None	Compliant
134	1/7/2024	51	32.4	6.5 - 8.5	7	Not Visible	None	Compliant
134	2/7/2024	51	11.4	6.5 - 8.5	8.38	Not Visible	None	Compliant
136	3/7/2024	51	11.3	6.5 - 8.5	6.78	Not Visible	None	Compliant
137	4/7/2024	51	5.6	6.5 - 8.5	7.62	Not Visible	None	Compliant
138	5/7/2024	51	17.3	6.5 - 8.5	7.61	Not Visible	None	Compliant
139	8/7/2024	51	3.8	6.5 - 8.5	7.22	Not Visible	None	Compliant
140	9/7/2024	51	37.2	6.5 - 8.5	8.43	Not Visible	None	Compliant
141	10/7/2024	51	27.7	6.5 - 8.5	8.01	Not Visible	None	Compliant
142	11/7/2024	51	18.8	6.5 - 8.5	7.52	Not Visible	None	Compliant
143	15/7/2024	51	36	6.5 - 8.5	6.66	Not Visible	None	Compliant
144	16/7/2024	51	19.5	6.5 - 8.5	7.62	Not Visible	None	Compliant

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit*	Results	Licence Limit	Results	Licence Limit	Results	
145	17/7/2024	51	2.1	6.5 - 8.5	8.45	Not Visible	None	Compliant
146	18/7/2024	51	9.2	6.5 - 8.5	8.46	Not Visible	None	Compliant
147	19/7/2024	51	2.9	6.5 - 8.5	6.76	Not Visible	None	Compliant
148	20/7/2024	51	34.9	6.5 - 8.5	6.84	Not Visible	None	Compliant
149	22/7/2024	51	6.6	6.5 - 8.5	7.02	Not Visible	None	Compliant
150	23/7/2024	51	36	6.5 - 8.5	7.01	Not Visible	None	Compliant
151	24/7/2024	51	4.8	6.5 - 8.5	7.18	Not Visible	None	Compliant
152	26/7/2024	51	5.8	6.5 - 8.5	6.9	Not Visible	None	Compliant
153	27/7/2024	51	10.7	6.5 - 8.5	6.96	Not Visible	None	Compliant
154	29/7/2024	51	1.8	6.5 - 8.5	6.86	Not Visible	None	Compliant
155	7/8/2024	51	28.4	6.5 - 8.5	7.49	Not Visible	None	Compliant
156	8/8/2024	51	27.2	6.5 - 8.5	7.38	Not Visible	None	Compliant
157	9/8/2024	51	10.2	6.5 - 8.5	7.62	Not Visible	None	Compliant
158	12/8/2024	51	29.3	6.5 - 8.5	7.3	Not Visible	None	Compliant
159	14/8/2024	51	38.4	6.5 - 8.5	7.97	Not Visible	None	Compliant
160	20/8/2024	51	18.4	6.5 - 8.5	7.54	Not Visible	None	Compliant
161	23/8/2024	51	34.6	6.5 - 8.5	7.48	Not Visible	None	Compliant
162	27/8/2024	51	12.2	6.5 - 8.5	7.55	Not Visible	None	Compliant
163	31/8/2024	51	29.4	6.5 - 8.5	8.32	Not Visible	None	Compliant

*No Surface water discharge occurred from May 2023 – July 2023 therefore no monitoring was undertaken.

**No surface water discharge occurred since August 2024.

*** Under approved EPL variation (02.05.2025) notice number 1647732. Discharge point 2 has been removed from EPL license 21791.

Water Monitoring Requirements (M2.2) Special Frequency 2

* *Special Frequency 2: at least one (1) sample from any temporary water treatment plant (ie. holding tank) where a controlled discharge is undertaken within a calendar month period. In the event that two (2) or more controlled discharges are undertaken from a temporary water treatment plant (holding tank) within a calendar month period, a minimum total of two (2) samples must be collected from each discharging temporary water treatment plant (ie. holding tank).*

No.	Date	Aluminum (dissolved)	Aluminum (total)	Cadmium	Copper	Lead	Zinc	pH	Oil & Grease	Turbidity
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pH	Visible	NTU
1	4/8/2023	50	460	0.1	5	1	8	8.25	Not Visible	49.8
2	7/8/2023	20	640	<0.1	1	<1	3	7.4	Not Visible	39.8
3	14/8/2023	<10	1900	<0.1	<1	<1	4	7.53	Not Visible	27.6
4	04/09/2023	30	7000	<0.1	4	<1	5	7.41	Not Visible	29.5
5	28/09/2023	50	1800	<0.1	3	<1	4	7.66	Not Visible	17.9
6	05/10/2023	30	110	<0.1	1	<1	7	8.02	Not Visible	2
7	27/10/2023	20	910	<0.1	2	<1	5	8.1	Not Visible	17.4
8	30/10/2023	20	1500	<0.1	3	2	3	8.41	Not Visible	46
9	4/11/2023	50	860	<0.1	3	2	4	7.5	Not Visible	44.1
10	10/11/2023	20	2300	<0.1	<1	<1	2	7.29	Not Visible	18.1
11	04/12/2023	570	1500	<0.1	5	1	10	8.11	Not Visible	34.2
12	12/12/2023	60	860	<0.1	2	<1	10	7.57	Not Visible	29.1
13	14/12/2023	190	2400	<0.1	4	<1	36	6.85	Not Visible	47.1
14	11/1/2024	90	5700	<0.1	2	<1	10	6.96	Not Visible	24.5
15	15/1/2024	6400	7700	<0.1	<1	<1	4	8.41	Not Visible	20.3
16	06/02/2024	70	370	<0.1	<1	<1	3	6.68	Not Visible	2.3
17	16/02/2024	170	22000	<0.1	3	<1	6	7.35	Not Visible	43
18	06/03/2024	50	480	<0.1	<1	<1	<1	8.44	Not Visible	45.9
19	07/03/2024	110	840	<0.1	2	1	8	8.31	Not Visible	21.6
20	09/04/2024	60	510	<0.1	1	<1	<1	8.21	Not Visible	43.2
21	15/04/2024	30	370	<0.1	1	<1	2	6.91	Not Visible	2.9
22	01/05/2024	<10	240	<0.1	<1	<1	2	7.4	Not Visible	5.8
23	06/05/2024	<10	80	<0.1	<1	<1	17	7.05	Not Visible	42
24*	03/06/2024	40	1200	<0.1	<1	<1	<1	8.33	Not Visible	31.8
25	04/06/2024	50	1600	<0.1	<1	<1	10	7.91	Not Visible	9.4
26	02/07/2024	40	1700	<0.1	3	<1	41	8.38	Not Visible	11.40
27	10/07/2024	40	1100	<0.1	2	<1	9	8.01	Not Visible	27.70
28	07/08/2024	250	2500	<0.1	3	<1	25	7.49	Not Visible	28.4
29	08/08/2024	220	1200	<0.1	4	<1	2	7.38	Not Visible	27.2

*Note all data reporting units before June 2024 have been converted to ug/L from mg/L. All data to now be displayed in ug/L.

** Note all data reported prior to June 2024 showed results of 'total,' pollutants. All data from 03/06/2024 shows data of 'dissolved' pollutants other than those specified as 'Total'.

***No surface water discharge occurred since August 2024.

Groundwater Discharge/ Monitoring Point 3 – Cammeray Site (WHT 10)

Groundwater discharge (L2.4) – Fortnightly

No.	Date Samples	Turbidity	pH	Oil & Grease	Aluminium (Dissolved) (ug/L)	Chromium (Hexavalent) (ug/L)	Nitrogen (total) (ug/L)	Nitrogen Oxides (ug/L)	Phosphorus (total) (ug/L)	Comment
		51	6.5 - 8.5	Not Visible	104	7.8	910	260	39	
1	29/02/24	0	6.77	Not visible	20	<1	200	40	100	Non-compliant for Phosphorus*
2	6/6/2024	0	7.82	Not visible	40	<1	1200	60	30	Non-compliant for Total Nitrogen***

*Non-compliant result for Phosphorus was identified following review of water monitoring data. Notification has been provided to the EPA and discharge has since ceased.

**Non-compliant result for Total Nitrogen was identified following review of water monitoring data. Notification has been provided to the EPA and discharge has since ceased.

*** No discharges occurred during March 2024, April 2024, May 2024 and July 2024.

Water Monitoring Requirements (M2.2) – Fortnightly

* **U1.1:** Investigate the impact on the receiving surface and ground water environments and the performance of the construction water treatment plant at Cammeray Ancillary Support Site (WHT10) by undertaking the following: a) collect fortnightly operational samples for a period of 6 months commencing from the date the construction water treatment plant becomes operational, and b) samples are to be taken of the input water, discharge water and downstream surface water from Willoughby Creek and analysing for concentrations of pollutants in Condition M2.2 Point 3.

No	Location	Date	Aluminum (dissolved)	Aluminum (total)	Arsenic	Cadmium	Chromium VI	Copper	Iron	Lead	Manganese	Nickel	Nitrogen Oxides	Nitrogen (total) as N	Total Phosphorus (as P)	Total Petroleum Hydrocarbons	Oil and Grease	pH	Turbidity
			ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	Visible	pH	NTU
1	Input Water	29/02/24	880	1500	<1	<0.1	<1	<1	30	<1	<5	<1	300	1300	<50	950	Not visible	11.40	9.10
	Discharge Water		20	20	11	<0.1	<1	<1	50	<1	110	28	40	200	100	<50	Not visible	6.77	0
	Willoughby Creek		30	150	<1	0.1	<1	4	30	<1	<5	1	2220	2200	60	<50	Not visible	7.72	4.20
2	Input Water	6/6/24	760	1200	2	<0.1	62	3	20	2	<5	<1	400	2000	80	200	Not visible	11.49	119
	Discharge Water		40	140	<1	<0.1	<1	<1	80	<1	9	3	60	1200	30	<50	Not visible	7.15	0
	Willoughby Creek	14/6/24	40	210	<1	<0.1	<1	2	40	<1	28	1	1700	2000	37	<50	Not visible	8.6	25.5

* No discharges occurred during March 2024, April 2024, May 2024 and since July 2024.

Discharge/ Monitoring Point 4 – Berry Street Site (WHT 8)

Surface water discharge (L2.4) Special Frequency 1

* Special Frequency 1: less than 24 hours prior to a controlled discharge and daily for any continued controlled discharge, when it is safe to do so and when rainfall causes a discharge from a temporary water treatment plant (ie. holding tank) which has not been emptied within the design management period following cessation of a rainfall event when it is safe to do so.

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit	Results	Licence Limit	Results	Licence Limit	Results	
1	26/06/24	51	48.7	6.5-8.5	7.16	Not Visible	None	
2	4/12/24	51	15.6	6.5-8.5	7.93	Not Visible	None	
3	3/02/25	51	11.9	6.5-8.5	7.84	Not Visible	None	
4	31/03/25	51	18.6	6.5-8.5	7.4	Not Visible	None	
5	11/04/25	51	18.6	6.5-8.5	8.16	Not Visible	None	
6	24/04/25	51	11.70	6.5-8.5	8.39	Not Visible	None	
7	28/04/25	51	28.60	6.5-8.5	8.21	Not Visible	None	
8	30/04/25	51	49.2	6.5-8.5	8.36	Not Visible	None	
9	02/05/25	51	46.4	6.5-8.5	7.94	Not Visible	None	
10	05/05/25	51	45.6	6.5-8.5	8.22	Not Visible	None	
11	06/05/25	51	17.7	6.5-8.5	7.18	Not Visible	None	
12	07/05/25	51	29.7	6.5-8.5	6.93	Not Visible	None	
13	08/05/25	51	32.9	6.5-8.5	8.48	Not Visible	None	
14	09/05/25	51	47.5	6.5-8.5	7.00	Not Visible	None	
15	12/05/25	51	45.2	6.5-8.5	8.23	Not Visible	None	
16	13/05/25	51	36.7	6.5-8.5	7.85	Not Visible	None	
17	14/05/25	51	40.6	6.5-8.5	8.17	Not Visible	None	
18	15/05/25	51	41.3	6.5-8.5	7.81	Not Visible	None	
19	19/05/25	51	48.1	6.5-8.5	8.19	Not Visible	None	
20	21/05/25	51	36.5	6.5-8.5	8.25	Not Visible	None	

*No surface water discharges occurred during May 2024 and June 2024.

Water Monitoring Requirements (M2.2) Special Frequency 2

* Special Frequency 2: at least one (1) sample from any temporary water treatment plant (ie. holding tank) where a controlled discharge is undertaken within a calendar month period. In the event that two (2) or more controlled discharges are undertaken from a temporary water treatment plant (holding tank) within a calendar month period, a minimum total of two (2) samples must be collected from each discharging temporary water treatment plant (ie. holding tank).

No.	Date	Arsenic	Chromium	Mercury	Nickel	Pesticides (OCPs)	PAHs	Total Petroleum Hydrocarbons	Aluminum (dissolved)	Aluminum (total)	Cadmium	Copper	Lead	Zinc	pH	Turbidity
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	pH	NTU
1	26/6/24	<1	7	<0.05	4	<0.2	0.32	220	30	1200	<0.1	3	<1	18000	7.16	48.7
2	4/12/24	1	1	<0.05	<1	<0.2	<0.1	<50	10	190	<0.1	2	<1	1900	7.93	15.6
3	3/2/25	<1	<1	<0.05	<1	<0.2	<0.1	<50	40	20	<0.1	4	<1	2200	7.84	11.9
4	31/3/25	1	1	<0.05	<1	<0.2	<0.1	140	20	1500	<0.1	<1	<1	140	7.4	18.6
**5	11/04/25	-	-	-	-	-	-	-	140	-	-	-	-	-	8.16	18.6
6	24/04/25	-	-	-	-	-	-	-	280	-	-	-	-	-	8.39	11.70
7	28/04/25	-	-	-	-	-	-	-	120	-	-	-	-	-	8.21	28.60
8	30/04/25	-	-	-	-	-	-	-	450	-	-	-	-	-	8.36	49.2
9	02/05/25	-	-	-	-	-	-	-	2000	-	-	-	-	-	7.94	46.4
10	05/05/25	-	-	-	-	-	-	-	210	-	-	-	-	-	8.22	45.6
11	06/05/25	-	-	-	-	-	-	-	10	-	-	-	-	-	7.18	17.7
12	07/05/25	-	-	-	-	-	-	-	890	-	-	-	-	-	6.93	29.7
13	08/05/25	-	-	-	-	-	-	-	1200	-	-	-	-	-	8.48	32.9
14	09/05/25	-	-	-	-	-	-	-	150	-	-	-	-	-	7.00	47.5
15	12/05/25	-	-	-	-	-	-	-	100	-	-	-	-	-	8.23	45.2
16	13/05/25	-	-	-	-	-	-	-	270	-	-	-	-	-	7.85	36.7
17	14/05/25	-	-	-	-	-	-	-	70	-	-	-	-	-	8.17	40.6
18	15/05/25	-	-	-	-	-	-	-	3200	-	-	-	-	-	7.81	41.3
19	19/05/25	-	-	-	-	-	-	-	180	-	-	-	-	-	8.19	48.1
20	21/05/25	-	-	-	-	-	-	-	1100	-	-	-	-	-	8.25	36.5

* No surface water discharges occurred during May 2024 and June 2024

** EPL 21791 variation (02.04.2025) - 'Removal of pesticides, polycyclic aromatic hydrocarbons, total petroleum hydrocarbons, arsenic, chromium, mercury, nickel cadmium, copper, lead and zinc monitoring requirements for discharge point 4 in condition M2.2 as they are no longer required.' Therefore, only Aluminum (dissolved) samples will be undertaken from April 02.04.2025 to comply with M2.2 water monitoring requirements.

Groundwater Discharge/ Monitoring Point 5 – Ridge Street (WHT 9)

Groundwater discharge (L2.4) Fortnightly

* **Special Frequency 1:** less than 24 hours prior to a controlled discharge and daily for any continued controlled discharge, when it is safe to do so and when rainfall causes a discharge from a temporary water treatment plant (ie. holding tank) which has not been emptied within the design management period following cessation of a rainfall event when it is safe to do so.

No.	Date Samples	Turbidity	pH	Oil & Grease	Aluminium (Dissolved) (ug/L)	Chromium (Hexavalent) (ug/L)	Nitrogen (total) (ug/L)	Nitrogen Oxides (ug/L)	Phosphorus (total) (ug/L)	Comment
		51	6.5 - 8.5	Not Visible	104	7.8	910	260	39	
1	11/07/2024	0	7.68	Not visible	10	<1	300	10	20	-

Water Monitoring Requirements (M2.2) – Fortnightly

* **U1.1:** Investigate the impact on the receiving surface and ground water environments and the performance of the construction water treatment plant at... Ridge Street Ancillary Support Site (WHT09) by undertaking the following: a) collect fortnightly operational samples for a period of 6 months commencing from the date the construction water treatment plant becomes operational, and b) samples are to be taken of the input water, discharge water and downstream surface water from the stormwater drain issuing to Neutral Bay at Anderson Park and analysing for concentrations of pollutants in Condition M2.2 Point 5.

No.	Location	Date	Aluminum (dissolved)	Aluminum (total)	Arsenic	Cadmium	Chromium VI	Copper	Iron	Lead	Manganese	Nickel	Nitrogen Oxides	Nitrogen (total) as N	Total Phosphorus (as P)	Total Petroleum Hydrocarbons	Oil and Grease	pH	Turbidity
			ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	Visible	pH	NTU
1*	Input Water	11/07/24	540	180,000	<1	<1	68	4	<10	<1	<5	<1	700	2,700	130	12,000	Not visible	12.47	1,000
	Discharge Water		10	60	<1	<1	<1	<1	200	<1	50	3	14	300	20	560	Not visible	7.68	0
	Anderson Park – AP1		30	220	<1	<1	<1	6	60	<1	33	2	2,800	3,800	100	<50	Not visible	8.31	3.6
	Anderson Park – AP2		30	190	<1	<1	<1	5	<10	<1	23	1	1,300	1,800	80	<50	Not visible	8.18	52.9

* All sampling for discharge No. 1 was taken prior to release of water into environment. Reporting for August will capture a pre and post release sample at Anderson Park as requested by EPA.

Discharge/ Monitoring Point 6 – Rozelle (WHT 12)

Surface water discharge (L2.4) Special Frequency 1

No.	Date Sampled	Total Suspended Solids (TSS)		pH		Oil & Grease		Comment
		Licence Limit (mg/L)	Results	Licence Limit	Results	Licence Limit	Results	
1	30/09/2024	50	23	6.5-8.5	6.69	Not Visible	Not Visible	Compliant TSS sample collected on 30SEP24 for 01OCT24 discharge
2	28/02/2025	50	20	6.5-8.5	7.73	Not Visible	Not Visible	Compliant TSS sample collected on 28FEB25 for 28FEB25 discharge

*No surface water discharges have occurred during June 2024 and July 2024.

Water Monitoring Requirements (M2.2) Special Frequency 2

* Special Frequency 2: at least one (1) sample from any temporary water treatment plant (ie. holding tank) where a controlled discharge is undertaken within a calendar month period. In the event that two (2) or more controlled discharges are undertaken from a temporary water treatment plant (holding tank) within a calendar month period, a minimum total of two (2) samples must be collected from each discharging temporary water treatment plant (ie. holding tank).

No.	Date Sampled	Total Suspended Solids (TSS)	pH	Oil & Grease	Comment
		mg/L	pH	Visible	
1	30/09/2024	23	6.69	Not visible	Compliant TSS sample collected on 30SEP24 for 01OCT24 discharge
2	28/02/2025	20	7.73	Not visible	Compliant TSS sample collected on 28FEB25 for 28FEB25 discharge

Discharge/ Monitoring Point 7 – Rozelle (WHT 12)

Surface water discharge (L2.4) Special Frequency 1

No.	Date Sampled	Total Suspended Solids (TSS)		pH		Oil & Grease		Comment
		Licence Limit (mg/L)	Results	Licence Limit	Results	Licence Limit	Results	
		50		6.5-8.5		Not Visible		

*No surface water discharges have occurred at discharge Point 7

Water Monitoring Requirements (M2.2) Special Frequency 2

* Special Frequency 2: at least one (1) sample from any temporary water treatment plant (ie. holding tank) where a controlled discharge is undertaken within a calendar month period. In the event that two (2) or more controlled discharges are undertaken from a temporary water treatment plant (holding tank) within a calendar month period, a minimum total of two (2) samples must be collected from each discharging temporary water treatment plant (ie. holding tank).

No.	Date Sampled	Total Suspended Solids (TSS)	pH	Oil & Grease	Comment
		mg/L	pH	Visible	

*No surface water discharges have occurred at discharge Point 7

Discharge / Monitoring Point 8 – WTP Discharge Point

Groundwater discharge (L2.4) Monthly

No.	Date	Arsenic (mg/L)	Cadmium (mg/L)	Chromium (hexavalent) (mg/L)***	Chromium (trivalent) (mg/L)	Copper (mg/L)***	Iron (mg/L)	Lead (ug/L)	Manganese (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Oil and Grease	pH	TSS (mg/L)	Zinc (mg/L)***
		0.05	0.014	0.07	0.15	0.04	1.5	0.03	2.5	0.00007	0.2	Not visible	6.5-8.5	50	0.15
1*	31/01/25	0.0007	<0.00005	<0.009	<0.001	<0.0005	<0.002	<0.0001	0.001	<0.000001	<0.0005	Not visible	7.59	0.3	0.001
2	19/02/25	<0.001	<0.0001	<0.005	<0.005	<0.001	<0.01	<0.001	<0.005	<0.00005	<0.001	Not visible	7.9	<5	0.005
3	13/03/25	<0.001	<0.0001	0.02	<0.005	<0.001	<0.01	<0.001	<0.005	<0.00005	<0.001	Not visible	8.3	<5	<0.001
4	04/04/25	<0.001	<0.0001	0.003	<0.005	<0.001	<0.01	<0.001	<0.005	<0.00005	<0.001	Not visible	7.6	<5	0.001
5	01/05/25	<0.001	<0.0001	0.006	<0.006	<0.001	<0.01	<0.001	<0.005	<0.00005	<0.001	Not visible	7.9	<5	0.001

*Sample collected by Package one contractor (EPL 21748) and used for discharge permit from (14/02/2025 – 28/02/2025).

** 90 Percentile concentration limit.

*** Results and criteria have been updated to be displayed in unit mg/l for consistency with the EPL.

Water Monitoring Requirements (M2.2) Monthly

No.	Date	Arsenic	Cadmium	Chromium (hexavalent)	Chromium (trivalent)	Copper	Iron	Lead	Manganese	Mercury	Nickel	Oil and Grease	pH	TSS	Zinc
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			mg/l	mg/L
1*	31/01/25	0.0007	<0.00005	<0.009	<0.001	<0.0005	<0.002	<0.0001	0.001	<0.000001	<0.0005	Not Visible	7.59	0.3	0.001
2	19/02/25	<0.001	<0.0001	<0.005	<0.005	<0.001	<0.01	<0.001	<0.005	<0.00005	<0.001	Not Visible	7.9	<5	0.005
3.	13/03/25	<0.001	<0.0001	0.02	<0.005	<0.001	<0.01	<0.001	<0.005	<0.00005	<0.001	Not visible	8.3	<5	<0.001
4.	04/04/25	<0.001	<0.0001	0.003	<0.005	<0.001	<0.01	<0.001	<0.005	<0.00005	<0.001	Not visible	7.6	<5	0.001
5	01/05/25	<0.001	<0.0001	0.006	<0.006	<0.001	<0.01	<0.001	<0.005	<0.00005	<0.001	Not visible	7.9	<5	0.001

*Sample collected by Package one contractor (EPL 21748) and used for discharge permit from (14/02/2025 – 28/02/2025).

** Results and criteria have been updated to be displayed in unit mg/l for consistency with the EPL.

Discharge / Monitoring Point 9 – WTP Discharge Point

Groundwater discharge (L2.4) Monthly

No.	Date	Aluminium (ug/L)	Ammonia (ug/L)	Chromium (hexavalent) (ug/L)	Chromium (trivalent) (ug/L)	Cobalt (ug/L)	Iron (ug/L)	Lead (ug/L)	Manganese (ug/L)	Nitrogen (Total) (ug/L)	Oxidised nitrogen (ug/L)	Phosphorus (Total) (ug/L)	Reactive Phosphorus (ug/L)	Oil and Grease	pH	Turbidity NTU
		105	1200	38	49	28	300	8.5	330	3600	1800	150	20	Not visible	6.5-8.5	50
1	13/05/25	30	290	<5	<5	<1	<10	<1	<5	700	10	<50	<5	Not visible	6.81	0.0
2	22/05/25	10	100	<5	<5	<1	<10	<1	6	400	95	<50	<5	Not visible	7.01	0.0
3	05/06/25	<10	180	<5	<5	<1	<10	<1	<5	2100	570	<50	<5	Not visible	7.12	7.8
4	16/06/25	10	88	<5	<5	<1	<10	<1	<5	1100	510	<50	<5	Not visible	7.32	0.0
5	24/06/25	<10	140	<5	<5	<1	<10	<1	<5	1100	570	<50	10	Not visible	7.41	0.0

Water Monitoring Requirements (M2.2) Monthly

No.	Date	Aluminium	Ammonia	Arsenic	Benzo(a)pyrene	Cadmium	Chlorine (free residual)	Chlorine (total residual)	Chromium (hexavalent)	Chromium (trivalent)	Cobalt	Copper	Fluoranthene	Iron	Lead	Manganese	Nickel	Nitrogen (Total)	Oil and Grease	Oxidised nitrogen	pH	Reactive Phosphorus	Total suspends solids*	TRH	Turbidity	Zinc
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/L	ug/L	Not visible	ug/L	6.5-8.5	ug/L	ug/L	ug/L	NTU	ug/L
1	13/05/25	30	290	1	<0.1	<0.1	<100	<100	<5	<5	<1	<1	<0.1	<10	<1	<5	<1	700	Not visible	10	6.81	<5	<5000	<50	0.0	2
2	22/05/25	10	100	1	<0.1	<0.1	<100	<100	<5	<5	<1	<1	<0.1	<10	<1	6	<1	400	Not visible	95	7.01	<5	<5000	<50	0.0	17
3	05/06/25	<10	180	<1	<0.1	<0.1	<100	<100	<5	<5	<1	<1	<0.1	<10	<1	<5	<1	2100	Not visible	570	7.12	<5	<5000	<50	7.8	1
4	16/06/25	10	88	<1	<0.1	<0.1	<100	<100	<5	<5	<1	<1	<0.1	<10	<1	<5	<1	1100	Not visible	510	7.32	<50	<5000	<50	0.0	<1
5	24/06/25	<10	140	<1	<0.1	<0.1	<100	<100	<5	<5	<1	<1	<0.1	<10	<1	<5	<1	1100	Not visible	570	7.41	10	<5	<50	0.0	15

* Results have been updated to be displayed in unit ug/l for consistency with the EPL.

Discharge/ Monitoring Point 10 – Cammeray Site (WHT 10)

Surface water discharge (L2.4) Special Frequency 1

* Special Frequency 1: less than 24 hours prior to a controlled discharge and daily for any continued controlled discharge, when it is safe to do so and when rainfall causes a discharge from a temporary water treatment plant (ie. holding tank) which has not been emptied within the design management period following cessation of a rainfall event when it is safe to do so.

No.	Date Sampled	Turbidity (NTU)		pH		Oil & Grease		Comment
		Licence Limit	Results	Licence Limit	Results	Licence Limit	Results	

* Discharge point WHT10 added to EPL 30/06/2025.

Water Monitoring Requirements (M2.2) Special Frequency 2

* Special Frequency 2: at least one (1) sample from any temporary water treatment plant (ie. holding tank) where a controlled discharge is undertaken within a calendar month period. In the event that two (2) or more controlled discharges are undertaken from a temporary water treatment plant (holding tank) within a calendar month period, a minimum total of two (2) samples must be collected from each discharging temporary water treatment plant (ie. holding tank).

No.	Date	Aluminum (dissolved)	Aluminum (total)	Cadmium (dissolved)	Copper	Lead	Oil and Grease	pH	Turbidity NTU	Zinc (dissolved)
		ug/L	ug/L	ug/L	ug/L	ug/L	Visible	6.5-8.5	50	ug/L

Noise Monitoring

Table 1 - Noise monitoring results

Month	Monitoring Location (Noise Catchment Area, Street, Suburb)	Date	Time	Attended or Continuous Monitoring	Parameter	Goal/Target dB(A)	Actual dB(A)	Comments
May 2023	N/A							
June 2023	N/A							
July 2023	N/A							
August 2023	N/A							
September 2023	N/A							
October 2023	N/A							
November 2023	N/A							
December 2023	N/A							
January 2024	N/A							
February 2024	N/A							
March 2024	N/A							
April 2024	N/A							
May 2024	N/A							
June 2024	N/A							
July 2024	N/A							
August 2024	N/A							
September 2024	N/A							
October 2024	N/A							
November 2024	N/A							
December 2024	N/A							
January 2025	N/A							
February 2025	N/A							
March 2025	N/A							
April 2025	N/A							
May 2025	N/A							
June 2025	N/A							

- No monitoring under the EPL noise monitoring licence conditions has been undertaken to date.