

Upper South Creek

Advanced Water Recycling Centre and Pipelines

Environmental Protection License – Environmental Monitoring Data Report

September 2023 to 30 November 2025

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1 Project Summary

The Upper South Creek Advanced Water Recycling Centre and Pipelines project (the project) has been proposed to support the population growth and economic development of the Western Sydney Aerotropolis Growth Area (WSAGA or Aerotropolis), South West Growth Area (SWGGA) and the new Western Sydney International Airport. The project will provide wastewater services to Western Sydney to produce high-quality treated water for non-drinking reuse and for release to local waterways.

The project comprises of the following components which are also detailed in Figure 1-1, Figure 1-2 and Figure 1-3.

- A new Advanced Water Recycling Centre (AWRC) to collect wastewater from businesses and homes and treat it, producing high-quality treated water, renewable energy and biosolids for beneficial reuse.
- A new green space area around the AWRC, adjacent to South Creek and Kemps Creek, to support the ongoing development of a green spine through Western Sydney.
- New infrastructure from the AWRC to South Creek, to release excess treated water during significant wet weather events, estimated to occur about 3 – 14 days each year.
- A new treated water pipeline from the AWRC to Nepean River at Wallacia Weir, to release high-quality treated water to the river during normal weather conditions.
- A new brine pipeline from the AWRC connecting into Sydney Water's existing wastewater system to transport brine to the Malabar Wastewater Treatment Plant.
- A range of ancillary infrastructure.

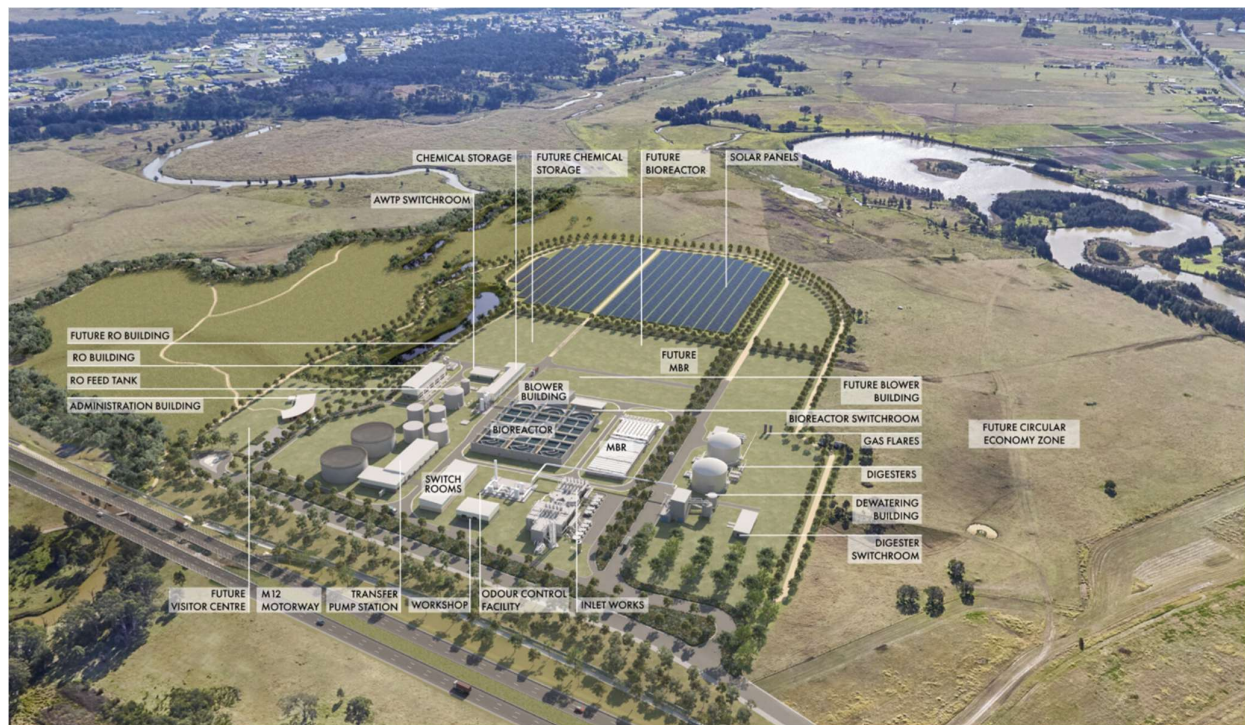


Figure 1-1 – Indicative AWRC site arrangement

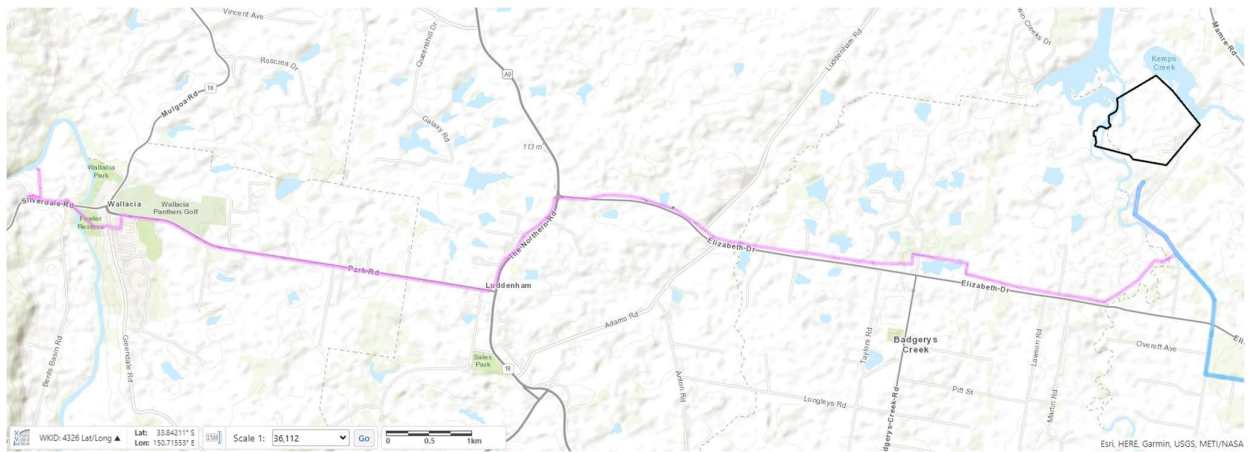


Figure 1-2 – Overview of the AWRC site and the treated water pipeline

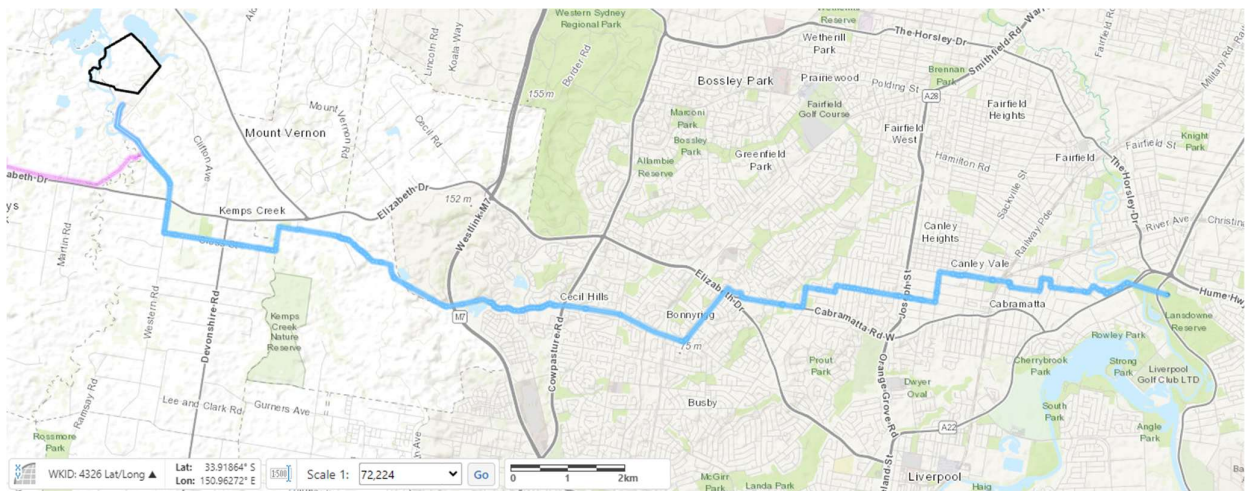


Figure 1-3 – Overview of the AWRC site and the brine pipeline

2 Environmental Protection License and Reporting Requirements

John Holland Pty Ltd obtained the Environment Protection Licence (EPL No. 21800) from the NSW Environment Protection Authority (EPA) for the project in July 2023 at the commencement of construction of the project. The licence is for sewage treatment as defined under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act). Sydney Water is the licensee, following the approval of a licence transfer application by the EPA on the 18 July 2025 (from John Holland).

The licence describes monitoring and reporting requirements for the construction works. The following report details environmental monitoring undertaken between September 2023 and 30 November 2025 in accordance with the EPL.

The EPL can be found by following the link below to the EPA and Sydney Water website:

- www.epa.nsw.gov.au
- <https://www.sydneywater.com.au/water-the-environment/what-we-are-doing/projects-in-your-area/uppersouthcreek-advanced-water-recycling-centre.html>

3 Environmental Monitoring Data

3.1 Noise Monitoring

Noise monitoring was undertaken during the period in accordance with the requirements of the USC Noise and Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007). Results of noise monitoring events are provided in Table 3-1.

Table 3-1 – Noise monitoring results

Monitoring Location (Address)	Date	Attended or Unattended	Construction Activities on Site	Measured Noise Level (LAeq,15min)	Predicted Noise Level (LAeq,15min)	Compliance
-33.861359, 150.631652	31/01/2023	Attended	Potholing and Early Works	53	60	Y
AWRC Site Car Park	5/09/2023	Attended	Site Establishment(Clearing, Earthworks)	57	64	Y
AWRC Site Car Park	27/09/2023	Attended	Bulk Earthworks	60	67	Y
Corner of Paper Road (before turning circle)	28/09/2023	Attended	Bulk Earthworks	52	57	Y
AWRC Site Car Park	28/09/2023	Attended	Bulk Earthworks	63	71	Y
-33.874187, 150.757894 Elizabeth Dr	28/09/2023	Attended	Site Establishment Topsoil Stripping	65	72	Y
-33.87418, 150.757894 Elizabeth Dr	28/09/2023	Attended	Site Establishment Stockpiling/ plant and equipment mobilisation	60	72	Y
Opposite 279 Park Rd	4/10/2023	Attended	Site Establishment Tree Clearing	64	75	Y
273 Park Road	4/10/2023	Attended	Site Compound Establishment Topsoil stripping, ATF fencing	65	75	Y
230-234 Clifton Ave	9/10/2023	Attended	Bulk Earthworks	58	42	Y - exceedance not caused by construction works
146B Clifton Ave	18/10/2023	Attended	Bulk Earthworks, Piling, Concrete Pour	56	42	Y - exceedance not caused by construction works
146B Clifton Ave	18/10/2023	Attended	Bulk Earthworks, Piling, Concrete Pour	59	42	Y
-33.864228, 150.704300 Elizabeth Dr, Luddenham	20/10/2023	Attended	Site Compound Establishment Topsoil stripping, container mobilisation	54	69	Y
-33.87418, 150.757894 Elizabeth Dr	20/10/2023	Attended	Trenchless Reaming	65	72	Y
Site Hive on the inlet pad	1/11/2023	Attended	Concrete Pour x3, Piling Breakback, Earthworks	66	75	Y

Site Hive on site compound	1/11/2023	Attended	Concrete Pour x3, Piling Breakback, Earthworks	50	71	Y
211 Elizabeth Dr	2/11/2023	Attended	Site Establishment Tree Clearing	73	93	Y
286 John Street	8/11/2023	Attended	Pipe Installation + Open trenching + Backfilling	72	87	Y
42 Edensor Road	8/11/2023	Attended	NDD Operation	72	79	Y
42 Edensor Road	8/11/2023	Attended	NDD Operation + Use of jackhammer	69	79	Y
-33.864434, 150.708990 Elizabth Dr, Luddenham	16/11/2023	Attended	Trenchless Pipe pull / Install	57	93	Y
-33.864029, 150.706395 Elizabth Dr, Luddenham	16/11/2023	Attended	Pipe Install	57	93	Y
-33.87418, 150.757894 Elizabeth Dr	16/11/2023	Attended	Trenchless Pipe pull / Install	72	86	Y
-33.863415, 150.771694	16/11/2023	Attended	Excavation Pipe Welding	57	78	Y
111 Feodore Drive	17/11/2023	Attended	Pipe Installation + Open trenching + Backfilling	66	94	Y
107 Feodore Drive	17/11/2023	Attended	Pipe Installation + Open trenching + Backfilling	70	94	Y
107 Feodore Drive	17/11/2023	Attended	Pipe Installation + Open trenching + Backfilling	70	94	Y
08 Maud Close	17/11/2023	Attended	Pipe Installation + Open trenching + Backfilling	79	79	Y
Site Hive at Inlet	30/11/2023	Attended	Concrete Pour	41	56	Y
Site Hive at Inlet	30/11/2023	Attended	Concrete Pour	42	56	Y
Site Hive at Inlet	30/11/2023	Attended	Concrete Pour	42	56	Y
08 Maud Close	1/12/2023	Attended	Pipe Installation + Open trenching + Backfilling	71	94	Y
111 Frederick Street	1/12/2023	Attended	Pipe Installation + Open trenching + Backfilling	65	95	Y
Site Hive at Inlet	9/12/2023	Attended	Steelfixing	55	52	Y - exceedance not caused by construction works
230-234 Clifton Ave	9/12/2023	Attended	Steelfixing	44	40	Y - exceedance not caused by construction works
40 John Street	13/12/2023	Attended	Pipe Installation + Open trenching + Backfilling	66	95	Y

38 Cumberland Highway	13/12/2023	Attended	Pipe Installation + Open trenching + Backfilling	73	95	Y
38 Cumberland Highway	13/12/2023	Attended	Pipe Installation + Open trenching + Backfilling	74	95	Y
38 Cumberland Highway	13/12/2023	Attended	Vac Truck	77	95	Y
38 Cumberland Highway	13/12/2023	Attended	No Construction noise	65	95	Y
-33.868127, 150.775426	14/12/2023	Attended	Site Establishment Tree Clearing	66	78	Y
-33.868127, 150.775426	14/12/2023	Attended	Pipe Install	64	69	Y
68 Park Rd	15/12/2023	Attended	Trenchless	66	81	Y
36 Park Rd	15/12/2023	Attended	Trenchless Pipe Install	82	89	Y
Site Hive at Inlet	16/12/2023	Attended	Concrete Base Slab Pour	51	57	Y
Site Hive at Inlet	16/12/2023	Attended	Concrete Base Slab Pour	52	57	Y
Site Hive at Inlet	16/12/2023	Attended	Concrete finishing works and FRP works	53	57	Y
322 Park Rd	19/12/2023	Attended	Excavation	69	79	Y
-33.864185, 150.703146 C7	19/12/2023	Attended	Excavation Pipe Install	68	78	Y
-33.873815, 150.758140	19/12/2023	Attended	Trenchless Pipe Install / Pipe Pull	73	86	Y
345 North Liverpool Road	20/12/2023	Attended	Saw cutting for potholing works, vac trucks	80	86	Y
341 North Liverpool Road	20/12/2023	Attended	Potholing using vac truck	84	86	Y
341 North Liverpool Road	20/12/2023	Attended	Vac truck SWL test	84	84	Y
628 Cabramatta Road West	7/01/2024	Attended	Placement of traffic barriers	57	49	Y - exceedance not caused by construction works
628 Cabramatta Road West	7/01/2024	Attended	Placement of traffic barriers	62	49	Y - exceedance not caused by construction works
230-234 Clifton Ave	11/01/2024	Attended	Steelfixing	55	36	Y - exceedance not caused by construction works

628 Cabramatta Road West	13/01/2024	Attended	Pipe pulling using excavator	67	72	Y
628 Cabramatta Road West	13/01/2024	Attended	Pipe pulling and welding	67	72	Y
230-234 Clifton Ave	14/01/2024	Attended	Steelfixing	46	36	Y - exceedance not caused by construction works
628 Cabramatta Road West	14/01/2024	Attended	Nil - background monitoring only	62	n/a	Y
323 North Liverpool Road	23/01/2024	Attended	Pavement breakout and potholing	75	92	Y
329 North Liverpool Road	23/01/2024	Attended	Pavement breakout and potholing	83	92	Y
230-234 Clifton Ave	24/01/2024	Attended	Concrete Base Slab Pour	64	48	Y - exceedance not caused by construction works
Site Hive at Carpark	24/01/2024	Attended	Concrete Base Slab Pour	61	63	Y
Site Hive at Carpark	24/01/2024	Attended	Concrete Base Slab Pour	51	63	Y
Site Hive at Carpark	25/01/2024	Attended	Concrete Base Slab Pour	47	63	Y
677 Cabramatta Rd WEst	25/01/2024	Attended	Potholing	72	79	Y
4 Katinka Street	25/01/2024	Attended	Potholing	83	94	Y
Site Hive at Carpark	30/01/2024	Attended	MBR Concrete Pour	43	63	Y
Site Hive Carpark	30/01/2024	Attended	MBR Concrete Pour	43	63	Y
Site Hive Carpark	30/01/2024	Attended	MBR Concrete Pour	49	63	Y
Site Hive Inlet	30/01/2024	Attended	MBR Concrete Pour	54	63	Y
27 East Parade	7/02/2024	Attended	Spoil movement and loading, truck movement, excavator movement and equipment loading	64	62	Y - exceedance not caused by construction works
West of C12 compound	7/02/2024	Attended	Spoil movement and loading, truck movement, excavator movement and equipment loading	58	62	Y
699 Cabramatta Rd	8/02/2024	Attended	No Construction noise - background road prior to arrival	70	82	Y

689 Cabramatta Rd	8/02/2024	Attended	Road saw and potholing with vac truck	78	81	Y
2289-2309 Elizabeth Dr	8/02/2024	Attended	Compound Operation	60	65	Y
behind 5 Tarlington Pl within Hebblewhite Reserve	9/02/2024	Attended	vac truck potholing	77	80	Y
24 Park Road	14/02/2024	Attended	Compaction	74	89	Y
South S12, O/S 27 East Pde	26/02/2024	Attended	Background compound monitoring	53	30	Y - exceedance not caused by construction works
South S12, O/S 27 East Pde	26/02/2024	Attended	Prestart	59	30	Y - exceedance not caused by construction works
11C Meadows Rd	26/02/2024	Attended	potholing, roadsaw	83	83	Y
11B Meadows Rd	26/02/2024	Attended	potholing and roadsaw	75	83	Y
11C Meadows Rd	26/02/2024	Attended	potholing	77	83	Y
203 John St (east)	27/02/2024	Attended	Road saw	82	87	Y
203 John St (east)	27/02/2024	Attended	Potholing	71	87	Y
C10 - 10m from 63 Edinburgh Court	29/02/2024	Attended	Vehicles exiting C10	54	75	Y
C10 - 10m from 63 Edinburgh Court	29/02/2024	Attended	Vehicles exiting C10	56	75	Y
1 Shelley Road	2/03/2024	Attended	Drilling/HDD	52	54	Y
1 Katinka St	5/03/2024	Attended	trenching	86	89	Y
339 N Liverpool Rd	6/03/2024	Attended	trenching	88	86	Y - exceedance not caused by construction works
339 N Liverpool Rd	6/03/2024	Attended	trenching	75	86	Y
339 N Liverpool Rd	6/03/2024	Attended	trenching	89	86	Y - exceedance not caused by construction works
Site Hive Carpark	7/03/2024	Attended	Bioreactor concrete pour	43	63	Y

Site Hive Carpark	7/03/2024	Attended	Spoil Delivery	45	57	Y
889 Ludenham Road	7/03/2024	Attended	Potholing	61	61	Y
889 Ludenham Road	7/03/2024	Attended	Potholing	59	61	Y
120 Cross St	14/03/2024	Attended	Pipe Install / backfill	57	75	Y
47 Willowbank Cresc	27/03/2024	Attended	Trenching and loading material into truck and dog	60	73	Y
6 Meadows Rd	27/03/2024	Attended	Trenching and loading material into truck and dog	75	72	Y - exceedance not caused by construction works
C10 - 25m from 77 Edinburgh Circuit	2/04/2024	Attended	Worker mobilisation and plant leaving site	56	76	Y
C10 - 25m from 77 Edinburgh Circuit	2/04/2024	Attended	Truck and dog returning to site to dump material then leave site	52	76	Y
107 Montgomery St	13/04/2024	Attended	HDD works	78	78	Y
107 Montgomery St	13/04/2024	Attended	HDD works	69	78	Y
Park OPP 109 Feodore St (equal distance)	15/04/2024	Attended	Trenching and pipe installation	69	85	Y
Between 109 and 111 Feodore St	15/04/2024	Attended	Trenching and pipe installation	65	85	Y
Park OPP 111 Feodore St (equal distance)	16/04/2024	Attended	Grinding and FRP works	66	88	Y
C6 Entry gate	17/04/2024	Attended	Background compound monitoring	58	55	Y - exceedance not caused by construction works
203 John St (east)	21/04/2024	Attended	HDD works	74	95	Y
Site Hive at Carpark	23/04/2024	Attended	Concrete Pour	50	57	Y
607 Cabramatta Rd	1/05/2024	Attended	Pumping water and excavation	70	87	Y
11 Willowbank Cres	2/05/2024	Attended	clearing	61	80	Y
11 Willowbank Cres	2/05/2024	Attended	clearing	55	75	Y
Cabravale Leisure Centre	6/05/2024	Attended	ATF setup	54	44	Y - exceedance not caused by construction works

Opposite 2720 Silverdale Rd	6/05/2024	Attended	Site Establishment, Delivery Truck with Tanks	52	47	Y - exceedance not caused by construction works
Opposite 2720 Silverdale Rd	7/05/2024	Attended	Site Establishment, Excavator Unloading Tank	55	47	Y - exceedance not caused by construction works
120 Willmington Rd	7/05/2024	Attended	Saw Cutting / Road Excaavtion	59	71	Y
2289-2309 Elizabeth Dr	7/05/2024	Attended	Spoil Movement / Site shed use	55	55	Y
406 Park Road	7/05/2024	Attended	Road Excavation	62	55	Y - exceedance not caused by construction works
24 Park Road	23/05/2024	Attended	Trenching, spoil removal, pipe installation	68	87	Y
24 Park Road	23/05/2024	Attended	Trenching, spoil removal, pipe installation	70	87	Y
C6 compound	23/05/2024	Attended	Spoil delivery, stockpile shaping	54	55	Y
72 Park Road	27/05/2024	Attended	Traffic and work area set up	39	44	Y
1 William Street / 148 Park Rd	27/05/2024	Attended	Traffic set up / Road Excavation	44	71	Y
1 William Street / 148 Park Rd	28/05/2024	Attended	Pipe Installation, Spoil haulage, material delivery	44	70	Y
72 Park Road	28/05/2024	Attended	Pipe Installation, Spoil haulage, material delivery	37	43	Y
25 Matingara Way	28/05/2024	Attended	Road Excavation	34	32	Y - exceedance not caused by construction works
72 Park Road	28/05/2024	Attended	Pipe Installation, Spoil haulage, material delivery	42	44	Y
1 William Street / 148 Park Rd	29/05/2024	Attended	Pipe Installation, Spoil haulage, material delivery	46	70	Y
72 Park Road	29/05/2024	Attended	Compaction, pipe install	40	43	Y
Lansdowne Reserve access track	31/05/2024	Attended	Kemmix installation	68	45	Y - exceedance not caused by construction works

2650 Elizabeth Drive	27/06/2024	Attended	Road sawing	55	58	Y
Behind 9 Willowbank Cres	29/06/2024	Attended	HDD works	60	47	Y - exceedance not caused by construction works
O/S 1 Marriott Rd	5/07/2024	Attended	Pipe towing	63	84	Y
O/S 1 Marriott Rd	5/07/2024	Attended	Pipe tugging	57	79	Y
O/S 1 Marriott Rd	6/07/2024	Attended	Pipe tugging	67	81	Y
Site Hive Carpark	7/07/2024	Attended	Clean up - Vac Truck	48	51	Y
230-234 Clifton Ave	13/07/2024	Attended	General Construction / Solar	56	40	Y - exceedance not caused by construction works
Site Hive Carpark	18/07/2024	Attended	OSOM	52	53	Y
1 Tarlington Parade	23/07/2024	Attended	Tree clearing	72	91	Y
1 Tarlington Parade	23/07/2024	Attended	Tree clearing	69	91	Y
N Liverpool/Montgomery roundabout	24/07/2024	Attended	Pipe pull - tracking pipe down the road	68	97	Y
217A North Liverpool Road	24/07/2024	Attended	Pipe pull - welding	73	97	Y
217A North Liverpool Road	24/07/2024	Attended	Pipe pull - welding and cutting with chainsaw	73	97	Y
M7 HDD Entry Pit, western side M7	6/08/2024	Attended	Trenching Pipeline Installation	58	76	Y
Lansdowne Reserve NGRS	8/08/2024	Attended	HDD Pipe pulling and welding	65	78	Y
M7 HDD Entry Pit, western side M7	13/08/2024	Attended	Topsoil spreading, stockpile management	73	73	Y
O/S 331 NLR - Cnr NLR and Wilson Rd	29/08/2024	Attended	Background roadway monitoring	76	n/a	Y
O/S 218 NLR	29/08/2024	Attended	Excavating roadway	75	94	Y
O/S 325 NLR	29/08/2024	Attended	Concrete pouring	75	94	Y
O/S 331 NLR	29/08/2024	Attended	Background noise monitoring	76	N/A	Y
O/S 329 NLR	29/08/2024	Attended	Excavating roadway	73	91	Y

O/S 329 NLR	29/08/2024	Attended	Excavating roadway	82	91	Y
O/S 222 NLR	29/08/2024	Attended	Excavating roadway	78	97	Y
O/S 222 NLR	29/08/2024	Attended	Excavating roadway	78	97	Y
O/S 329 NLR	3/09/2024	Attended	Case Excavator lifting covers to scour, lowering concrete block	67	91	Y
O/S 331 NLR	3/09/2024	Attended	Vac truck in use	67	96	Y
O/S 327 NLR	3/09/2024	Attended	Vac truck in use, gravel truck, case excavator scraping gravel from truck and tipping into pit	70	90	Y
Site Hive Carpark	14/09/2024	Attended	In grounds	49	53	Y
Site Hive Carpark	10/10/2024	Attended	Steelfixing	39	53	Y
Site Hive Carpark	11/10/2024	Attended	Concrete Pour	45	53	Y
Site Hive Carpark	11/10/2024	Attended	Concrete Pour	46	53	Y
South Creek Crossing, - 33.870097, 150.776849	8/11/2024	Attended	Replanting / Landscape	46	51	Y
2720 SILVERDALE ROAD, WALLACIA	8/11/2024	Attended	Replanting / Landscape	61	60	Y - exceedance not caused by construction works
2141 Elizabeth Drive, Luddenham	8/11/2024	Attended	Replanting / Landscape	66	43	Y - exceedance not caused by construction works
Behind 3 Axton Pl	14/11/2024	Attended	Footpath restoration	51	61	Y
O/S 20 Kensington Cl	14/11/2024	Attended	Topsoil restoration	59	59	Y
Adjacent to 1530 Elizabeth Dr	14/11/2024	Attended	Hydromulching and restoration	50	64	Y
7 Henry Lawson Dr	27/11/2024	Attended	Earthworks restoration	61	69	Y
OPP 170 NLR (in MLP)	27/11/2024	Attended	Rehab	62	84	Y
2230 The Northern Rd, Luddenham	11/12/2024	Attended	Landscaping / Road Restoration	64	64	Y
429 Park Road, Luddenham	11/12/2024	Attended	Landscaping / Road Restoration	62	44	Y - exceedance not caused by construction works

2230 The Northern Rd, Luddenham	11/12/2024	Attended	Landscaping / Road Restoration	61	64	Y
1 Katinka St	12/12/2024	Attended	Permanent road resto	72	91	Y
654 Cabramatta Rd	12/12/2024	Attended	Permanent road resto	66	91	Y
689 Cabramatta Rd	12/12/2024	Attended	Permanent road resto	65	81	Y
7 Henry Lawson Dr	11/12/2024	Attended	Potholing and slip trenching	69	68	Y - exceedance not caused by construction works
146B Clifton Ave	14/12/2024	Attended	Trenching/pipe construction	57	69	Y
146B Clifton Ave	14/12/2024	Attended	Trenching/pipe construction	52	69	Y
629 Cabramatta Rd	21/01/2025	Attended	Permanent road resto	70	82	Y
230 Humphries Rd	21/01/2025	Attended	Permanent road resto	74	76	Y
SiteHive CarPark	23/01/2024	Attended	Epoxy Coating	39	42	Y
SiteHive Inlet	23/01/2024	Attended	Epoxy Coating	50	50	Y
SiteHive CarPark	23/01/2024	Attended	Epoxy Coating	42	42	Y
SiteHive CarPark	24/01/2025	Attended	Concrete Pour Brine Tank	51	42	Y - exceedance not caused by construction works
SiteHive CarPark	5/02/2025	Attended	Epoxy Coating	46	40	Y - exceedance not caused by construction works
SiteHive Inlet	17/02/2025	Attended	Sandblasting	48.3	61	Y
SiteHive Inlet	17/02/2025	Attended	Sandblasting	52.8	61	Y
SiteHive Inlet	18/02/2025	Attended	Sandblasting	60.3	61	Y
SiteHive CarPark	18/02/2025	Attended	Sandblasting	45.4	51	Y
AWRC Site Car Park	28/02/2025	Attended	Watermain Cutover	46.8	63	Y
AWRC Site Car Park	28/02/2025	Attended	Watermain Cutover	49.6	63	Y

AWRC Site Car Park	28/02/2025	Attended	Watermain Cutover	53.7	63	Y
AWRC Site Car Park	1/03/2025	Attended	Watermain Cutover	52.1	63	Y
AWRC Site Car Park	7/03/2025	Attended	Roadway excavation	51.3	64	Y
AWRC Site Car Park	7/03/2025	Attended	Roadway excavation	51.5	64	Y
AWRC Site Car Park	7/03/2025	Attended	Roadway excavation	51.7	59	Y
AWRC Site Car Park	7/03/2025	Attended	Roadway excavation	50.8	59	Y
AWRC Site Car Park	8/04/2025	Attended	Epoxy Coating	53.7	59	Y
Site Hive Car Park	21/06/2025	Attended	General Construction	43.2	51	Y
Site Hive Car Park	24/06/2025	Attended	Mechanical Works	46.9	53	Y
Site Hive Car Park	24/06/2025	Attended	Mechanical Works	46.2	49	Y
Site Hive Car Park	14/09/2025	Attended	Internal roads	41.6	49	Y
33 Meadows Road	24/10/2025	Attended	Commissioning of scour pit	68	65	Y - exceedance not caused by construction works

3.2 Vibration Monitoring

Vibration monitoring was undertaken during the period in accordance with EPL 21800 and the USC Noise and Vibration CEMP Sub-plan (USCP-JHG-MPL-ENV-0007) Results of water monitoring are provided in Table 3-2.

Table 3-2 – Vibration monitoring results

Details			Results		
Date	Work Location	Vibration Limit/Target	Results	Units	Compliant
Between 30/11/2023 and 17/11/2023	WSP - Shooting Centre	3mm/s	<3	mm/s	Yes
19/12/2023	Shooting Centre - Location 1	20mm/s	5.5	mm/s	Yes
19/12/2023	Shooting Centre - Location 2	20mm/s	5.5	mm/s	Yes
14/02/2024	North Liverpool Rd East of T-Way	7.5 mm/s	1.6	mm/s	Yes
22/02/2024	Cabramatta Rd at Hebblewhite Reserve	7.5 mm/s	0.468	mm/s	Yes
27/02/2024	John St east	7.5 mm/s	3.27	mm/s	Yes
27/02/2024	John St east	7.5 mm/s	3.89	mm/s	Yes
29/02/2024	18 Kensington Cl	7.5 mm/s	0.741	mm/s	Yes

29/02/2024	22 Kensington Cl	7.5 mm/s	0.008	mm/s	Yes
29/02/2024	20 Kensington Cl	7.5 mm/s	1	mm/s	Yes
5/03/2024	Cabramatta Rd at Humphries	7.5 mm/s	3.35	mm/s	Yes
6/03/2024	North Liverpool Rd West Wilson	7.5 mm/s	1.30	mm/s	Yes
9/03/2024	6 Byron Avenue	7.5 mm/s	2.70	mm/s	Yes
14/03/2024	4 Cumberland St	7.5 mm/s	0.41	mm/s	Yes
21/03/2024	18 Beckenham St	7.5 mm/s	1.40	mm/s	Yes
13/04/2024	107 Montgomery St	7.5 mm/s	2.70	mm/s	Yes
15/04/2024	Feodore Dr near Frederick roundabout	7.5 mm/s	1.10	mm/s	Yes
24/05/2024	24 Park Road on road	7.5 mm/s	1.71	mm/s	Yes
29/05/2024	Leisure Centre	7.5 mm/s	0.10	mm/s	Yes
28/06/2024	Lansdowne NGRS	7.5 mm/s	0.69	mm/s	Yes
5/07/2024	North Liverpool Road	7.5 mm/s	1.27	mm/s	Yes
8/08/2024	Lansdowne NGRS	7.5 mm/s	0.08	mm/s	Yes
27/11/2024	Edith St, Lansdowne	3.5mm/s	0.676	mm/s	Yes
11/12/2024	Edith St, Lansdowne	3.5mm/s	0.77	mm/s	Yes

3.3 Water Monitoring

Water monitoring associated with water discharges was undertaken during the period in accordance with Condition P1 and L2 of EPL 21800 and the USC Surface Water and Groundwater CEMP Sub-plan (USCP-JHG-MPL-ENV-0001). Results of water monitoring are provided in Table 3-3.

Table 3-3 – Water monitoring results

Date	Location	pH	Turbidity (NTU)	Oil and/or Grease	Chloride (mg/L)
29/04/2024	Cosgroves Creek	8.04	16.20	None visible	Not detected
7/05/2024	Badgery's Creek	7.89	5.80	None visible	0.18
8/05/2024	Badgery's Creek	8.07	3.40	None visible	0.03
16/05/2024	Brine - Curtin St	8.28	32.10	None visible	0.26
17/05/2024	Brine - Curtin St	8.47	33.00	None visible	0.46
20/05/2024	Brine - Curtin St	7.02	1.00	None visible	0.12
22/05/2024	Treated Water - Ch228	7.13	24.70	None visible	Not detected
22/05/2024	Brine - Ch 18724	8.41	7.90	None visible	0.4
23/05/2024	Brine - John St (East) Ch 18712	8.31	22.10	None visible	0.34
27/05/2024	Brine - John St (East)	8.49	30.90	None visible	0.03
28/05/2024	Brine - Fairview Rd	7.95	7.10	None visible	0.14
30/05/2024	Treated Water - Ch15090	7.96	29.70	None visible	0.04
3/06/2024	Brine - Chancery St	8.29	1.20	None visible	0.48
3/06/2024	Brine - Curtin St	8.30	4.30	None visible	0.12
4/06/2024	Brine - Curtin St	8.25	23.00	None visible	0.16
4/06/2024	Brine - Chancery St	8.30	11.30	None visible	0.12
5/06/2024	Brine - Curtin St CH 20983	7.96	0.00	None visible	0.03
7/06/2024	Brine - Bartley St CH 20291.6	8.03	1.30	None visible	0.07
11/06/2024	Brine - Bartley St CH 20291.6	8.42	28.80	None visible	0.05
12/06/2024	Brine - Bartley St CH 20291.6	8.34	35.90	None visible	Not detected
18/06/2024	Oaky Creek	8.41	34.00	None visible	N/A
25/06/2024	Brine - Woolway Park	8.16	33.80	None visible	0.17
4/07/2024	CH1028	8.41	35.70	None visible	0.09
5/07/2024	Bartley Street	8.16	3.70	None visible	0.21
9/07/2024	AWRC HES Basin	8.38	34.90	None visible	Not detected
9/07/2024	Discharge Structure	8.49	34.00	None visible	Not detected
9/07/2024	Discharge Structure	8.30	15.20	None visible	Not detected

10/07/2024	Brine - Bartley St CH 20291.6	7.50	3.80	None visible	0.16
11/07/2024	Discharge Structure	7.89	5.20	None visible	Not detected
15/07/2024	AWRC HES Basin	8.22	31.70	None visible	Not detected
16/07/2024	John St - Brine	7.55	1.90	None visible	Not detected
16/07/2024	Fowlers Reserve - HDD	7.94	7.20	None visible	0.06
18/07/2024	AWRC HES Basin	8.20	15.10	None visible	Not detected
18/07/2024	Brine - Bartley St CH 20291.6	7.50	29.60	None visible	0.31
18/07/2024	Brine - Edensor Rd	7.71	9.80	None visible	0.31
19/07/2024	Brine - Cumberland St CH 20675	7.65	17.30	None visible	Not detected
19/07/2024	Brine - Bartley St CH 20291.6	7.79	17.00	None visible	0.18
22/07/2024	Fowlers Reserve	7.66	15.80	None visible	0.31
23/07/2024	Curtin St, Brine	7.88	19.40	None visible	Not detected
24/07/2024	Discharge Structure	6.73	34.60	None visible	Not detected
26/07/2024	Discharge Structure	8.37	35.70	None visible	Not detected
26/07/2024	Chancery St CH21925	7.85	35.50	None visible	0.49
1/08/2024	Fowlers Farm	6.65	2.60	None visible	0.07
6/08/2024	Ch15090	7.21	0.00	None visible	Not detected
6/08/2024	John St Brine CH18148	7.95	0.00	None visible	Not detected
6/08/2024	Chancery St CH22121	7.75	0.00	None visible	0.12
7/08/2024	Ch15090	7.30	0.00	None visible	Not detected
9/08/2024	Curtin St CH 20983	7.83	0.00	None visible	0.11
12/08/2024	Package 1 Treated Scour	7.02	3.00	None visible	0.18
13/08/2024	Cosgroves Creek, CH 7336	7.57	10.40	None visible	Not detected
13/08/2024	Treated - Package 1 Scour Pit	7.75	0.00	None visible	0.04
14/08/2024	Cosgroves Creek, CH 7336	7.97	0.00	None visible	Not detected
14/08/2024	AWRC - HES Basin	8.15	0.00	None visible	Not detected
14/08/2024	Treated - Package 1 Scour Pit	7.12	0.00	None visible	0.04
15/08/2024	Cosgroves Creek, CH 7336	8.01	0.00	None visible	Not detected
15/08/2024	Ch14627 - Jerry's Creek east	6.72	0.00	None visible	0.09
16/08/2024	Ch14627 - Jerry's Creek east	7.37	0.00	None visible	0.06
19/08/2024	Cross St CH 4300	7.66	0.00	None visible	0.38
19/08/2024	Package 1 Treated Scour	8.42	3.00	None visible	0.17
20/08/2024	Willowbank Cres 22800	7.09	0.00	None visible	0.32

20/08/2024	Cross St CH 4300	7.28	0.00	None visible	0.28
20/08/2024	Package 1 Treated Scour	8.33	0.00	None visible	0.14
20/08/2024	Ch14627 - Jerry's Creek east	7.83	0.00	None visible	0.07
21/08/2024	Ch14625 - James St	6.87	0.00	None visible	0.23
21/08/2024	Package 1 Treated Scour	7.04	0.00	None visible	0.13
21/08/2024	Ch14625 - James St	7.37	0.00	None visible	0.1
21/08/2024	Ch14627 - Jerry's Creek east	7.49	0.00	None visible	0.06
22/08/2024	Package 1 Treated Scour	7.51	0.00	None visible	0.03
27/08/2024	Package 1 Treated Scour	7.83	0.00	None visible	Not detected
27/08/2024	Package 1 Brine Scour	7.36	0.00	None visible	0.03
28/08/2024	Package 1 Treated Scour	7.83	0.00	None visible	0.23
2/09/2024	Package 1 Treated Scour	7.23	0.00	None visible	0.48
2/09/2024	Feodore Dr CH 10210	8.41	0.00	None visible	0.15
3/09/2024	98 Fairview St	7.82	0.00	None visible	0.23
4/09/2024	98 Fairview St	7.60	0.00	None visible	0.11
5/09/2024	John St East CH 18340	7.57	5.90	None visible	0.12
9/09/2024	Park Rd CH1180	7.13	0.00	None visible	0.41
9/09/2024	John St CH18150	7.90	0.00	None visible	0.4
11/09/2024	Fairview Rd CH 21400	7.67	0.00	None visible	0.08
13/09/2024	Shooting Centre Scour CH7187	7.35	1.80	None visible	0.36
16/09/2024	North Liverpool Rd Ch11800	7.56	0.00	None visible	0.47
16/09/2024	Badgery's Creek HDD	7.62	0.00	None visible	0.47
16/09/2024	South Creek CH1475	6.95	0.00	None visible	0.13
17/09/2024	Badgery's Creek HDD	7.55	0.00	None visible	0.3
17/09/2024	Chancery St CH22116	7.36	0.00	None visible	0.05
18/09/2024	Hebblewhite Reserve	8.15	0.00	None visible	0.34
20/09/2024	Hebblewhite Reserve	7.62	0.00	None visible	0.3
26/09/2024	AWRC - HES Basin	7.97	4.80	None visible	0.07

27/09/2024	AWRC - HES Basin	8.15	3.20	None visible	0.07
30/09/2024	Feodore Dr CH 10210	8.06	0.00	None visible	0.2
30/09/2024	AWRC - HES Basin	8.37	0.00	None visible	0.03
3/10/2024	Willowbank Cres CH 22800	7.18	0.00	None visible	0.15
8/10/2024	Package 1 Brine Scour	7.33	2.70	None visible	0.15
10/10/2024	Feodore Dr CH 10200	8.45	0.00	None visible	0.12
11/10/2024	AWRC - HES Basin	7.80	6.80	None visible	Not detected
11/10/2024	Package 1 CH 1435	7.88	4.40	None visible	0.07
14/10/2024	AWRC - HES Basin	7.93	7.50	None visible	0.04
16/10/2024	Package 1 CH 1000	7.98	8.70	None visible	0.18
18/10/2024	Package 1 CH 1000	7.68	32.70	None visible	Not detected
21/10/2024	Nepean River Discharge Structure	8.05	13.30	None visible	Not detected
22/10/2024	Nepean River Discharge Structure	6.83	20.20	None visible	Not detected
23/10/2024	Montgomery Rd Scour	7.96	7.90	None visible	0.02
24/10/2024	Package 1 CH 1000	8.47	0.00	None visible	Not detected
24/10/2024	Feodore Dr CH 10210	6.77	11.20	None visible	0.08
28/10/2024	Willowbank CH 22804.4	7.15	35.40	None visible	0.1
29/10/2024	Cross St CH 4725	8.36	29.90	None visible	0.09
30/10/2024	RBM12 CH 5000	6.60	35.60	None visible	0.33
8/11/2024	Vale St CH 21725	7.40	36.10	None visible	0.29
11/11/2024	Chancery St CH 21935	6.63	34.50	None visible	0.27

13/11/2024	Vale St CH 21725	6.68	35.60	None visible	0.21
18/11/2024	Willowbank CH 22804.4	7.42	1.70	None visible	0.28
18/11/2024	Park Rd CH12163	7.55	8.50	None visible	0.15
20/11/2024	Lennox Reserve	6.87	1.60	None visible	Not detected
22/11/2024	Park Rd CH 14777	7.61	15.70	None visible	0.15
22/11/2024	Park Rd CH 12163	8.04	9.00	None visible	0.1
25/11/2024	332 Park Rd CH 13158	6.57	16.60	None visible	Not detected
3/12/2024	MBR to OSD	8.2	25.2	None visible	0.03
11/12/2024	AWRC HES Basin	8.3	0.0	None visible	0.03
12/12/2024	AWRC HES Basin	8.4	10.6	None visible	0.03
13/12/2024	AWRC HES Basin	7.3	0.5	None visible	0.03
14/12/2024	AWRC HES Basin	7.7	25.4	None visible	0.03
16/12/2024	AWRC HES Basin	8.3	19.3	None visible	0.03
29/01/2025	AWRC HES Basin	7.4	5.1	None visible	0.04
30/01/2025	AWRC HES Basin	7.5	27.7	None visible	0.03
31/01/2025	AWRC HES Basin	7.5	26.6	None visible	Not detected
3/02/2025	AWRC HES Basin	8.0	2.4	None visible	0.07
4/02/2025	AWRC HES Basin	8.1	8.5	None visible	Not detected
5/02/2025	AWRC HES Basin	8.2	1.1	None visible	Not detected
6/02/2025	AWRC HES Basin	8.2	6.9	None visible	Not detected
7/02/2025	AWRC HES Basin	8.0	20.0	None visible	0.08

8/02/2025	AWRC HES Basin	8.1	6.0	None visible	Not detected
11/02/2025	AWRC HES Basin	8.2	25.6	None visible	0.07
12/02/2025	AWRC HES Basin	8.2	20.8	None visible	Not detected
20/05/2025	AWRC HES Basin	7.9	0.2	None visible	0.09
21/05/2025	AWRC HES Basin	8.2	30.5	None visible	0.02
22/05/2025	AWRC HES Basin	7.6	4.8	None visible	Not detected
23/05/2025	AWRC HES Basin	7.5	32.7	None visible	Not detected
24/05/2025	SRM - Thompson 1	7.9	4.7	None visible	0.04
24/05/2025	SRM - Thompson 2	7.6	1.6	None visible	0.04
24/05/2025	SRM - Lowes	7.6	0.3	None visible	0.11
26/05/2025	AWRC HES Basin	8.4	25.9	None visible	Not detected
28/05/2025	AWRC HES Basin	8.4	10.4	None visible	Not detected
29/05/2025	AWRC HES Basin	8.2	13.0	None visible	0.04
30/05/2025	AWRC HES Basin	8.4	12.1	None visible	0.05
16/06/2025	AWRC HES Basin	8.4	30.9	None visible	0.41
17/06/2025	AWRC HES Basin	8.2	30.8	None visible	0.02
18/06/2025	AWRC HES Basin	7.8	30.4	None visible	0.05
20/06/2025	AWRC HES Basin	7.8	34.6	None visible	0.02
23/06/2025	AWRC HES Basin	8.1	26.4	None visible	Not detected
24/06/2025	AWRC HES Basin	7.9	23.4	None visible	Not detected
25/06/2025	AWRC HES Basin	8.1	31.8	None visible	0.02
7/07/2025	AWRC HES Basin	8.0	14.5	None visible	Not detected

8/07/2025	AWRC HES Basin	8.2	8.7	None visible	Not detected
9/07/2025	AWRC HES Basin	8.1	12.8	None visible	0.02
10/07/2025	AWRC HES Basin	8.4	7.4	None visible	0.04
11/07/2025	AWRC HES Basin	8.2	8.9	None visible	0.03
15/07/2025	AWRC HES Basin	8.5	6.3	None visible	Not detected
16/07/2025	AWRC HES Basin	8.3	7.2	None visible	0.02
17/07/2025	AWRC HES Basin	8.5	2.9	None visible	Not detected
18/07/2025	AWRC HES Basin	8.4	8.0	None visible	0.02
28/07/2025	HES basin	8.4	34.8	None visible	Not detected
29/07/2025	HES basin	8.2	22.1	None visible	0.02
30/07/2025	HES basin	8.0	28.6	None visible	Not detected
31/07/2025	HES basin	8.2	21.5	None visible	0.02
1/08/2025	HES basin	8.1	19.6	None visible	0.04
4/08/2025	HES basin	8.4	31.0	None visible	Not detected
5/08/2025	HES basin	7.6	23.1	None visible	0.06
6/08/2025	HES basin	8.5	18.6	None visible	Not detected
12/08/2025	HES basin	7.3	8.9	None visible	0.05
13/08/2025	HES basin	7.2	10.7	None visible	Not detected
14/08/2025	HES basin	7.7	13.2	None visible	0.15
15/08/2025	HES basin	7.7	12.2	None visible	Not detected
18/08/2025	HES basin	7.9	11.2	None visible	0.02

19/08/2025	HES basin	7.4	10.0	None visible	0.03
20/08/2025	HES basin	7.5	10.5	None visible	0.02
21/08/2025	HES basin	7.3	26.0	None visible	0.01
22/08/2025	HES basin	8.0	27.7	None visible	Not detected
25/08/2025	HES basin	8.0	21.7	None visible	Not detected
26/08/2025	HES basin	8.0	30.4	None visible	Not detected
27/08/2025	HES basin	8.1	34.6	None visible	0.16
27/08/2025	HES basin	8.4	34.8	None visible	Not detected
01/09/2025	HES basin	8.1	31.0	None visible	Not detected
02/09/2025	HES basin	7.9	22.0	None visible	Not detected
03/09/2025	HES basin	7.7	30.5	None visible	Not detected
04/09/2025	HES basin	8.0	27.6	None visible	0.05
05/09/2025	HES basin	7.2	23.4	None visible	0.03
09/09/2025	HES basin	8.1	19.2	None visible	Not detected
10/09/2025	HES basin	7.7	17.0	None visible	Not detected
12/09/2025	HES basin	8.4	30.6	None visible	0.02
15/09/2025	HES basin	8.4	20.0	None visible	Not detected
16/09/2025	HES basin	8.0	30.2	None visible	Not detected
18/09/2025	HES basin	8.3	32.3	None visible	Not detected
19/09/2025	HES basin	8.1	33.9	None visible	Not detected
22/09/2025	Kemps Creek	8.4	10.9	None visible	Not detected

23/09/2025	HES basin	7.3	33.7	None visible	Not detected
24/09/2025	HES basin	7.5	32.5	None visible	0.05
24/09/2025	Drainage swale nearby (#91 discharge point as per EPL, CH 6774 Shooting Centre)	7.5	6.2	None visible	Not detected
24/09/2025	Drainage swale nearby (#91 discharge point as per EPL, CH 7175 Shooting Centre)	8.0	36.0	None visible	Not detected
25/09/2025	HES basin	8.3	34.1	None visible	0.07
26/09/2025	HES basin	7.9	16.7	None visible	0.03
30/09/2025	Stormwater drain (#94 discharge point as per EPL, CH 10256 Feodore Drive, Elizabeth Hills)	7.6	5.9	None visible	0.07
30/09/2025	HES basin	8.4	9.4	None visible	0.04
01/10/2025	Stormwater drain (#99 discharge point as per EPL, CH 13474 Montgomery Road)	6.7	14.6	None visible	0.15
01/10/2025	Stormwater drain (#100 discharge point as per EPL, CH 13888 Montgomery Road)	7.2	7.6	None visible	Not detected
01/10/2025	Stormwater drain (#101 discharge point as per EPL, CH 14253 Montgomery Road)	8.4	4.4	None visible	0.36
01/10/2025	HES basin	8.0	1.4	None visible	0.06
02/10/2025	HES basin	8.1	4.4	None visible	Not detected
03/10/2025	Stormwater drain (#102 discharge point as per EPL, CH 15671 Cabramatta Road)	8.4	2.0	None visible	Not detected
07/10/2025	Stormwater drain (#66 discharge point as per EPL, CH 21372 Fairfield Road)	7.5	2.2	None visible	0.14
07/10/2025	Stormwater drain (#69 discharge point as per EPL, CH 22325 Chancery Street)	7.5	0.1	None visible	0.09
07/10/2025	Stormwater drain (#63 discharge point as per EPL, CH 18314 John Street)	8.1	1.1	None visible	0.13
08/10/2025	HES basin	8.1	4.0	None visible	0.03
08/10/2025	Stormwater drain (#57 discharge point as per EPL, CH 20252 Bartley Street, outside Cabravale Diggers Club)	7.0	5.8	None visible	0.51
09/10/2025	HES basin	8.3	9.2	None visible	0.04
10/10/2025	HES basin	8.4	7.3	None visible	0.02

15/10/2025	Grassed swale leading to South Creek (#12 discharge point as per EPL, CH 823 treated water)	7.8	0.0	None visible	Not detected
15/10/2025	Grassed swale leading to Badgerys Creek (#42 discharge point as per EPL, CH 4058 Metro Entry)	8.0	0.0	None visible	0.15
15/10/2025	HES basin	8.2	29.0	None visible	0.02
16/10/2025	Grassed swale leading to Badgerys Creek (#42 discharge point as per EPL, CH 4097 Metro Entry – scour it)	8.3	2.8	None visible	0.49
16/10/2025	Grassed swale leading to Badgerys Creek (#42 discharge point as per EPL, CH 4097 Metro Entry – stop valve)	8.4	4.2	None visible	0.41
17/10/2025	Grassed swale leading to Badgerys Creek (#16 discharge point as per EPL, CH 5835 BHL)	8.2	34.1	None visible	Not detected
20/10/2025	HES basin	8.4	33.2	None visible	Not detected
21/10/2025	Stormwater drain (#25 discharge point as per EPL, CH 10744 Cnr Park Road and Willmington Road)	7.7	8.2	None visible	Not detected
23/10/2025	Grassed swale leading to Mulgoa Creek (#27 discharge point as per EPL, CH 12146 Park Road)	8.2	0.3	None visible	Not detected
23/10/2025	Grassed swale leading to Mulgoa Creek (#28 discharge point as per EPL, CH 13158 Park Road)	8.4	1.7	None visible	0.15
28/10/2025	Grassed swale leading to Badgerys Creek (#29 discharge point as per EPL, CH 14123 Cnr Park Road and James Street)	6.6	17.4	None visible	0.04
28/10/2025	Stormwater drainage line (#30 discharge point as per EPL, CH 14428 Park Road)	7.6	1.3	None visible	0.07
28/10/2025	Stormwater drainage line (#30 discharge point as per EPL, CH 14428 Park Road)	6.6	21.4	None visible	0.11
28/10/2025	Grassed swale leading to Nepean River (#33 discharge point as per EPL, CH 16140 Fowlers farm)	7.3	11.8	None visible	0.04
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03/11/2025	HES basin	8.2	36.1	None visible	Not detected
07/11/2025	HES basin	8.3	5.2	None visible	0.13
11/11/2025	HES basin	8.3	31.2	None visible	Not detected
12/11/2025	HES basin	8.2	35.2	None visible	Not detected
13/11/2025	HES basin	8.2	36.0	None visible	Not detected
14/11/2025	HES basin	8.0	36.0	None visible	0.09
17/11/2025	HES basin	8.4	29.9	None visible	0.05

18/11/2025	HES basin	8.3	27.1	None visible	0.13
19/11/2025	HES basin	8.3	26.4	None visible	0.02
20/11/2025	HES basin	7.9	31.7	None visible	0.2
21/11/2025	HES basin	8.3	21.4	None visible	0.21
26/11/2025	HES basin	8.4	28.9	None visible	Not detected