JUNE 2025

MONTHLY CONSTRUCTION WATER QUALITY MONITORING REPORT

June 2025
Project No.: 3200-0645
Project: Transgrid Maragle 500/330 kV Substation
Private & Confidential

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ABBREVIATIONS

Acronym	Full Form
℃	degrees Celsius
µS/cm	micro Siemens per centimetre
%	percent
4WD	Four wheel drive
Ag	Silver
Al	Aluminium
ALS	ALS Limited
ANZECC	Australian and New Zealand Environment and Conservation Council
ANZG	Australian and New Zealand Guidelines
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand
As	Arsenic
Baseline Report	'Baseline Water Quality Report' (NGH, 2024)
$CaCO_3$	Total Hardness
Cd	Cadmium
COA	'Certificate of Analysis' (ALS, 2025a)
COC	Chain of Custody
Cr	Chromium
Cu	Copper
DGV	Default Guideline Values
DO	Dissolved Oxygen
EC	Electrical Conductivity
EIS	Environmental Impact Statement
EPL	Environmental Protection Licence
Fe	Iron
Field Sheet	'Water Quality Monitoring Field Data Sheet' (UGL, 2025)
Hg	Mercury
km	kilometres
KNP	Kosciuszko National Park
kV	kilovolt
LOR	limit of reporting
mg/L	milligram per litre
mm	millimetre
Mn	Manganese
mV	millivolt
NATA	National Association of Testing Authorities, Australia

ABBREVIATIONS

Acronym	Full Form
NEM	National Energy Market
NGH	NGH Pty Ltd
Ni	Nickel
NSW	New South Wales
NTU	Nephelometric Turbidity Unit
Pb	Lead
ppm	parts per million
Pty Ltd	Proprietary Limited
QA/QC Assessment	'QA/QC Compliance Assessment to assist with Quality Review' (ALS, 2025b)
QCR	'Quality Control Report' (ALS, 2025c)
RP	reactive phosphorus
RS	Reference Site
Snowy 2.0	Snowy Scheme expansion project (EPBC 2018/8322)
Snowy Hydro	Snowy Hydro Limited
Snowy Scheme	Snowy Mountains Hydro-electric Scheme
SPC	specific conductance
SSGV	Site Specific Guideline Values
SW	surface water
SWQ	surface water quality
TDS	Total Dissolved Solids
The Methodology	'Pre-construction Water Quality Monitoring Program and Methodology' (NGH, 2022)
The Project	Construction of a 330 kV substation and overhead transmission lines between Nurenmerenmong, NSW and Cabramurra, NSW
TKN	Total Kjeldahl Nitrogen
TN	Total Nitrogen
TP	Total Phosphorus
Transgrid	The Trustee for the NSW Electricity Operations Trust
TSS	Total Suspended Solids
UGL	UGL Limited
WQO	water quality objectives
Zn	Zinc

1 BACKGROUND

In 2020 Snowy Hydro Limited (Snowy Hydro) obtained approval (EPBC 2018/8322) to expand the existing Snowy Mountains Hydro-electric Scheme (Snowy Scheme), by linking the existing Tantangara and Talbingo reservoirs through a series of underground tunnels and constructing a new underground hydro-electric power station (Snowy 2.0).

To connect Snowy 2.0 to the National Energy Market (NEM), a new transmission connection was required. The Trustee for the New South Wales (NSW) Electricity Operations Trust (TransGrid) is constructing a 330 kilovolt (kV) substation and overhead transmission lines (the Project) to facilitate the connection of Snowy 2.0 to the existing electrical transmission network. The Project is located within Kosciuszko National Park (KNP) between Nurenmerenmong and Cabramurra, NSW, approximately 27 kilometres (km) east of Tumbarumba, NSW (Figure 1). UGL Limited (UGL) has been engaged on behalf of Transgrid to undertake the Project.

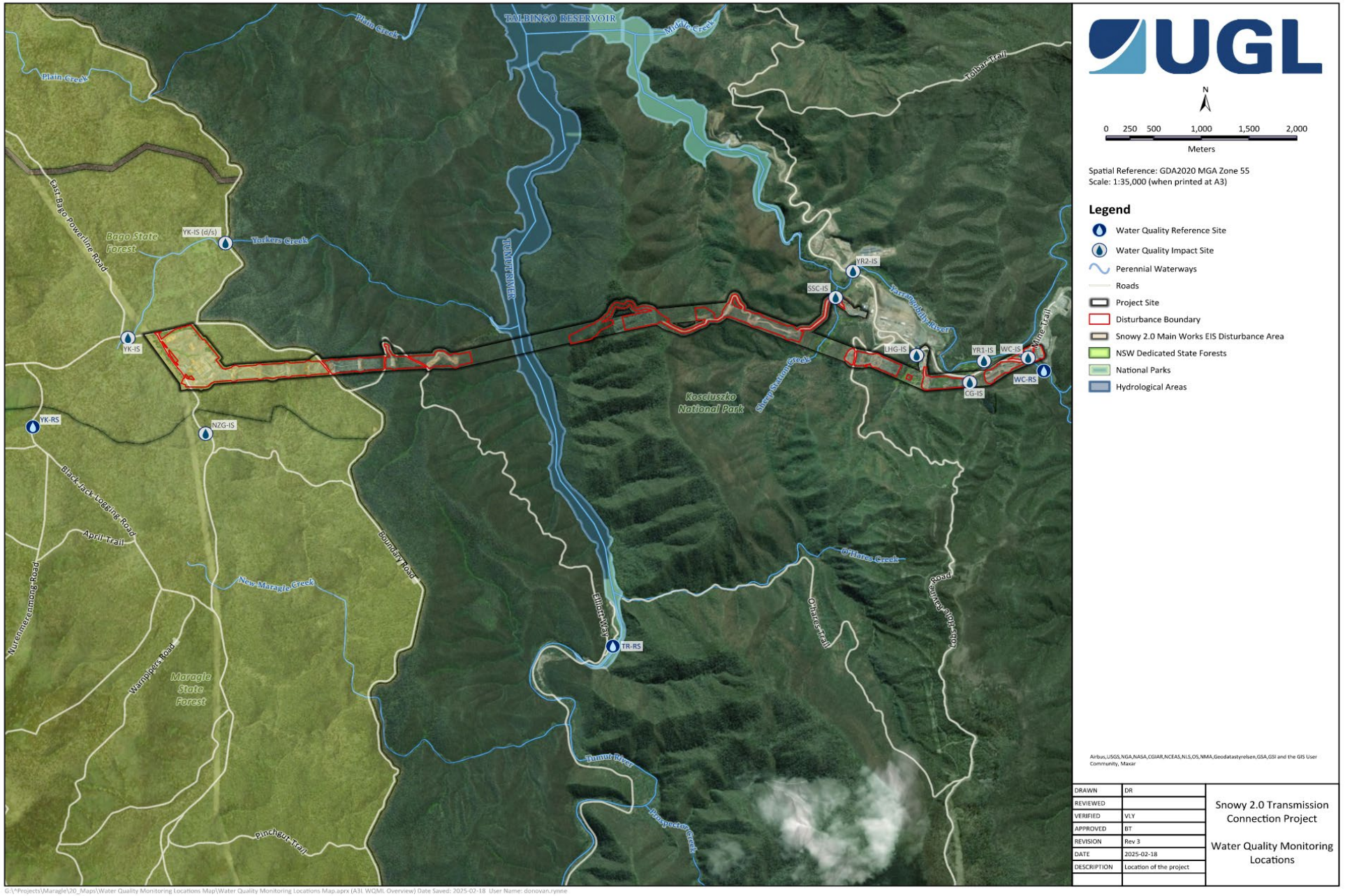

FIGURE 1 LOCALITY OF THE PROJECT AND SWQ MONITORING LOCATIONS

2 INTRODUCTION

The Project is adjacent to, and forms part of, the Snowy 2.0 project area and is located within KNP, an area of high conservation value. A total of 22 mapped waterways, tributaries of Yarrangobilly River and Tumut River, transect the Project Boundary (Figure 1).

One of the conditions of approval to meet the requirements outlined in the 'Environmental Impact Statement' (EIS) (Jacobs, 2020) and the Project's Environmental Protection Licence (EPL 21753) is to undertake regular surface water quality (SWQ) monitoring to mitigate environmental impacts on SWQ.

Pre-construction SWQ monitoring was undertaken by NGH Pty Ltd (NGH) between March 2022 and February 2024 to determine site specific baseline values for SWQ parameters prior to Project construction works. The pre-construction SWQ monitoring was undertaken using the 'Pre-construction Water Quality Monitoring Program and Methodology' (the Methodology) developed by NGH in 2022 (refer Section 3). Two years of pre-construction SWQ monitoring was analysed and summarised in the 'Baseline Water Quality Report' (Baseline Report) (NGH, 2024). The results were used to determine seasonal Site Specific Guideline Values (SSGV) for ongoing SWQ monitoring during the construction phase.

Construction for the Project commenced in March 2024. Construction SWQ monitoring will be undertaken by UGL on a monthly basis as per the revised methodology outlined in Section 3 to identify potential changes to SWQ that may be associated with the Project. SW samples from the construction SWQ monitoring would be analysed and presented in monthly Construction Water Quality Monitoring Reports.

3 METHODOLOGY

The Methodology was prepared by NGH in 2022 to support the pre-construction SWQ monitoring for the Project. The Methodology detailed the water quality objectives (WQO) for the Project, identified the monitoring locations and outlined the methodology for surface water (SW) sampling during the pre-construction phase. The Methodology (NGH, 2022) took into account the Project location within an area of high conservation value where the WQO for physical and chemical stressors, as outlined in the 'Australian and New Zealand Guidelines for Fresh and Marine Water Quality' (ANZG) (ANZG, 2018), includes no change in biodiversity beyond natural variability and where possible, there should also be no change in water/sediment chemical and physical properties, including toxicants.

Monitoring locations are outlined in Table 1. Figure 2 and Figure 3 show the water quality monitoring locations in relation to the Project and Snowy 2.0.

The Methodology (NGH, 2022) has been revised for construction SWQ monitoring by taking into account the seasonal SSGV set out in the Baseline Report (NGH, 2024) (refer to Section 4.2).

Construction SWQ monitoring would be analysed against the seasonal SSGV where available and appropriate. The Default Guideline Values (DGV) for Upland Rivers (ANZG, 2018) would be applied to water quality parameters that were not assessed in the Baseline Report (NGH, 2024) or where a guideline range is more appropriate. Table 2 outlines the seasonal SSGV and DGV used to compare construction SWQ to pre-construction SWQ.

Table 1 SWQ monitoring locations outlined in the Methodology (NGH, 2022)

WATER QUALITY MONITORING LOCATIONS					
ID	**Waterway**	**Site Type**	**Catchment**	**Latitude**	**Longitude**
WC-RS	Wallace Creek	Reference	Yarrangobilly River	-35.794258	148.415253
WC-IS	Wallace Creek	Impact		-35.792982	148.413404
CG-IS	Cave Gully	Impact		-35.795495	148.406665
YR1-IS	Yarrangobilly River	Impact		-35.793358	148.408277
LHG-IS	Lick Hole Gully	Impact		-35.792890	148.400445
YR2-IS	Yarrangobilly River	Impact		-35.784656	148.392921
SSC-IS	Sheep Station Creek	Impact		-35.793243	148.391046
TR-RS	Talbingo Reservoir	Reference	Talbingo Reservoir	-35.822094	148.365690
YK-RS	Yorkers Creek	Reference	Yorkers Creek	-35.801126	148.297979
YK-IS (D/S)	Yorkers Creek	Impact		-35.782684	148.320040
NZG-IS	New Zealand Gully	Impact		-35.801575	148.318051
YK-IS	Yorkers Creek	Impact		-35.792209	148.308878

FIGURE 2 WATER QUALITY MONITORING LOCATIONS ASSOCIATED WITH REFERENCE SITE YR-RS AND TR-RS IN RELATION TO THE PROJECT

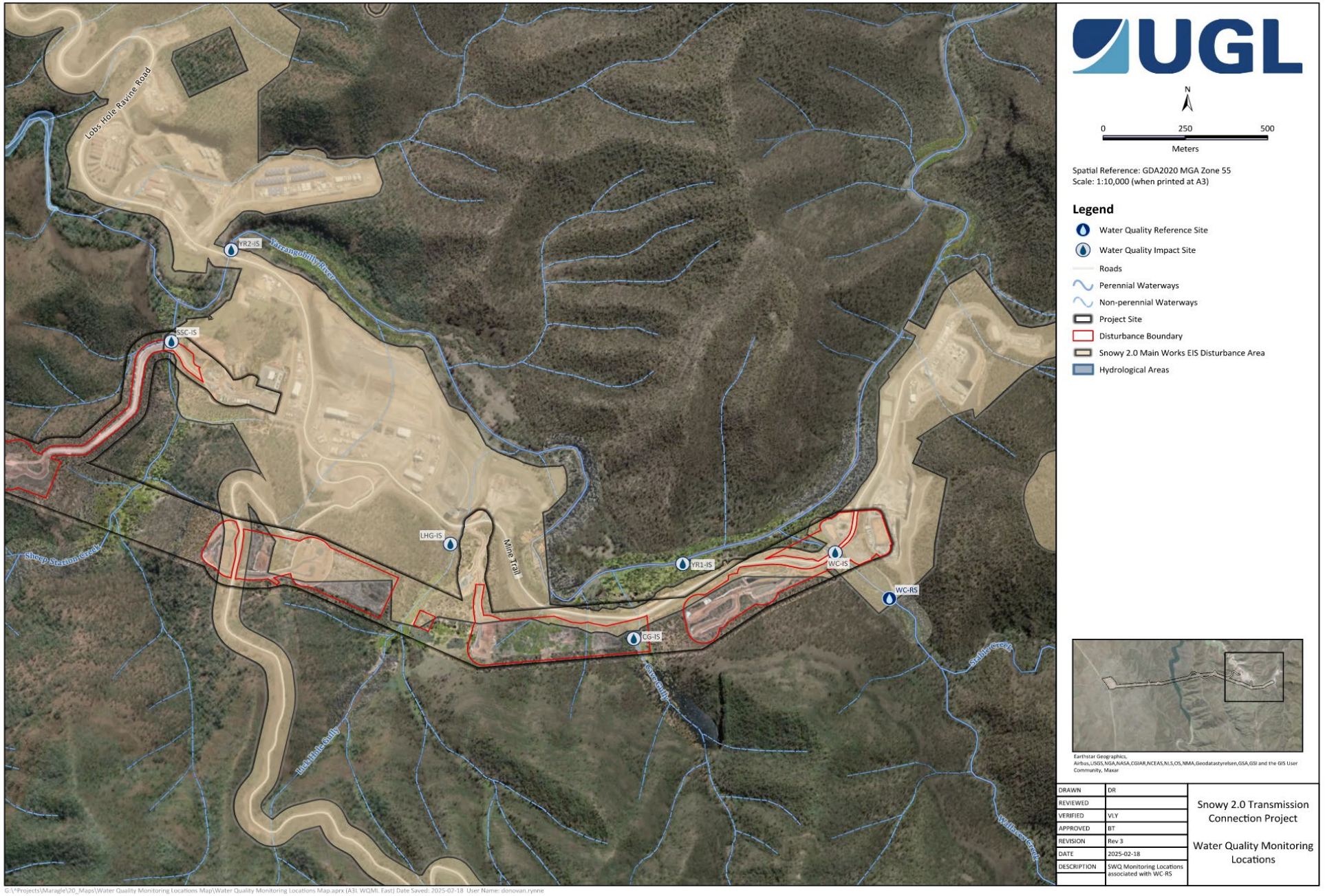

FIGURE 3 WATER QUALITY MONITORING LOCATIONS ASSOCIATED WITH REFERENCE SITE WC-RS IN RELATION TO THE PROJECT

Table 2 Seasonal SSGV (NGH, 2024) and DGV (ANZG, 2018) for water quality parameters

SURFACE WATER QUALITY GUIDELINE VALUES								
Parameter	**Unit**	**WC-RS**		**TR-RS**		**YK-RS**		**DGV**
		SSGV (Summer/Autumn)	**SSGV (Winter/Spring)**	**SSGV (Summer/Autumn)**	**SSGV (Winter/Spring)**	**SSGV (Summer/Autumn)**	**SSGV (Winter/Spring)**	
Temperature	℃*	-	-	-	-	-	-	-
Dissolved Oxygen (DO) ***	%#	96.2	89.7	91.3	95.5	89.6	88.7	90-110
DO	ppm+	9.08	10.28	8.79	11.53	8.35	10.2	-
Specific Electrical Conductivity (EC)***	SPC^ µS/cm^^	115	88	24	38.7	31	27.9	30-350
EC***	µS/cm	93.2	60.85	20.3	26.2	24	20.5	30-350
pH***	-	7.85	7.62	7.59	7.59	6.79	6.61	6.5-8
Redox	mV##	79.1	98.4	91.2	95.4	94.6	106.1	-
Turbidity***	NTU**	0.37	5.12	0.09	1.56	9	7.87	2-25
Dissolved Aluminium (Al)	mg/L++	0.03	0.04	0.03	0.015	0.36	0.32	0.027
Dissolved Arsenic (As)	mg/L	0.003	0.0003	0.003	0.0003	0.003	0.0003	0.0008
Dissolved Cadmium (Cd)	mg/L	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.0006
Dissolved Chromium (Cr)	mg/L	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Dissolved Copper (Cu)	mg/L	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.001
Cyanide	mg/L	0.002	0.002	0.002	0.002	0.002	0.002	0.004
Dissolved Iron (Fe)	mg/L	0.03	0.02	0.04	0.02	0.41	0.23	0.3
Dissolved Lead (Pb)	mg/L	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Dissolved Manganese (Mn)	mg/L	0.002	0.002	0.003	0.002	0.005	0.003	1.2
Dissolved Mercury (Hg)	mg/L	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00006

SURFACE WATER QUALITY GUIDELINE VALUES

Parameter	Unit	WC-RS		TR-RS		YK-RS		DGV
		SSGV (Summer/Autumn)	SSGV (Winter/Spring)	SSGV (Summer/Autumn)	SSGV (Winter/Spring)	SSGV (Summer/Autumn)	SSGV (Winter/Spring)	
Dissolved Nickel (Ni)	mg/L	0.001	0.001	0.001	0.001	0.001	0.001	0.008
Total Nitrogen (TN)	mg/L	0.2	0.2	0.2	0.2	0.2	0.2	0.25
Total Phosphorus (TP)	mg/L	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Dissolved Silver (Ag)	mg/L	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
Dissolved Zinc (Zn)	mg/L	0.002	0.002	0.002	0.002	0.002	0.002	0.0024
Ammonia	mg/L	0.013	0.013	0.013	0.013	0.013	0.013	0.013
Nitrogen Oxides	mg/L	0.015	0.015	0.015	0.015	0.015	0.015	0.015
Reactive Phosphorus (RP)	mg/L	0.02	0.015	0.02	0.015	0.02	0.02	0.015
Total Hardness ($CaCO_3$)	mg/L	47	30	7.5	8	1	7	-
Total Kjeldahl Nitrogen (TKN)	mg/L	0.2	0.2	0.1	0.2	0.1	0.2	-
Total Dissolved Solids (TDS)	mg/L	52	39	12.5	15	30	10	-
Total Suspended Solids (TSS)	mg/L	0.2	1	0.2	0.2	3	0.2	0.2
Total Al[@]	mg/L	-	-	-	-	-	-	0.027
Total As[@]	mg/L	-	-	-	-	-	-	0.0008
Total Cd[@]	mg/L	-	-	-	-	-	-	0.0006
Total Cr[@]	mg/L	-	-	-	-	-	-	0.00001
Total Cu[@]	mg/L	-	-	-	-	-	-	0.001
Total Pb[@]	mg/L	-	-	-	-	-	-	0.001
Total Mn[@]	mg/L	-	-	-	-	-	-	1.2
Total Ni[@]	mg/L	-	-	-	-	-	-	0.008

SURFACE WATER QUALITY GUIDELINE VALUES

Parameter	Unit	WC-RS		TR-RS		YK-RS		DGV
		SSGV (Summer/Autumn)	SSGV (Winter/Spring)	SSGV (Summer/Autumn)	SSGV (Winter/Spring)	SSGV (Summer/Autumn)	SSGV (Winter/Spring)	
Total Ag[@]	mg/L	-	-	-	-	-	-	0.00002
Total Zn[@]	mg/L	-	-	-	-	-	-	0.0024
Total Fe[@]	mg/L	-	-	-	-	-	-	0.3
Total Hg[@]	mg/L	-	-	-	-	-	-	0.00006

** ℃ = degrees Celsius* *[#] % = percent* *[##] mV = millivolt* *[+] ppm = parts per million* *[^] SPC = specific conductance* *[++] mg/L = milligram per litre*

*** NTU = Nephelometric Turbidity Unit* *[^^] µS/cm = micro Siemens per centimetre* *[@] parameter not analysed by NGH* **** assessed against DGV where guideline range is more appropriate for the parameter*

4 BASELINE WATER QUALITY

4.1 Water Quality Objectives

Water quality objectives are outlined in Section 2.1 of the Baseline Report (NGH, 2024).

4.2 Site Specific Guideline Values

In accordance with the ANZG (ANZG, 2018), SSGV for the three Reference Sites (RS) (WC-RS, TR-RS and YK-RS) were derived from the results collected during the 24 month pre-construction SWQ monitoring period. The SSGV reflect the seasonality observed in the baseline data and are characterised by the drier months of Summer/Autumn (December to May) and wetter months of Winter/Spring (June to November) in accordance with the 'Australian and New Zealand Environment and Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) (2000) methodology and derivatives developed to 2018 of the ANZG (ANZG, 2018).

Table 2 outlines the seasonal SSGV provided in the Baseline Report (NGH, 2024).

5 JUNE 2025 MONITORING

SW sampling was undertaken at 10 monitoring locations between 9th June and 11th June 2025. Two monitoring locations, SSC-IS and CG-IS, were dry at the time of monitoring.

In accordance with the methodology outlined in Section 3, SW samples were either measured in situ using a calibrated YSI ProDSS Sonde Multiparameter Digital Water Quality Meter (refer to Appendix D) or analysed by National Association of Testing Authorities, Australia (NATA) accredited ALS Limited (ALS) laboratory.

The 'Water Quality Monitoring Field Data Sheet' (Field Sheet) (UGL, 2025) is provided in Appendix A. The 'Certificate of Analysis' (COA) (ALS, 2025a), 'QA/QC Compliance Assessment to assist with Quality Review' (QA/QC Assessment) (ALS, 2025b) and 'Quality Control Report' (QCR) (ALS, 2025c) are attached in Appendix B.

Observations

Field observations during sampling are summarised in Table 3.

Table 3 Field observations during sampling

FIELD OBSERVATIONS		
Date	9 and 11 June 2025	
Weather	The weather forecast for 9 June was -2 degrees Celsius (℃) with 90 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 33.8mm of rainfall across 7 to 9 June. At the time of sampling, the weather was overcast with light rain.	
ID	**Observations**	**Photo**
WC-RS	• High water volume with high flow rate • Rocky and eroded banks including exposed roots from a large tree • Presence of aquatic vegetation including algae and moss • Presence of vegetative detritus • Clear water • Riparian vegetation consisted of groundcover, shrubs and trees • Moderate weed density including of Blackberry (*Rubus fruticosus*)	

FIELD OBSERVATIONS

Date	9 and 11 June 2025	
Weather	The weather forecast for 9 June was -2 degrees Celsius (°C) with 90 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 33.8mm of rainfall across 7 to 9 June. At the time of sampling, the weather was overcast with light rain.	
ID	**Observations**	**Photo**
WC-IS	• Moderate volume with high flow rate • Presence of vegetative detritus • Presence of aquatic vegetation • Slightly turbid water • Riparian vegetation predominantly trees and grass • High weed density including Blackberry (Rubus fruticosus) • Rocky banks and undercut banks • Monitoring location is adjacent to bridge and Mine Trail Road which is frequently used by Snowy 2.0 vehicles, plant and machinery	
CG-IS	• No flow, dry	

FIELD OBSERVATIONS

Date	9 and 11 June 2025
Weather	The weather forecast for 9 June was -2 degrees Celsius (℃) with 90 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 33.8mm of rainfall across 7 to 9 June. At the time of sampling, the weather was overcast with light rain.

ID	Observations	Photo
YR1-IS	• Presence of aquatic invertebrates, vegetation, moss and algae • Turbid water with slight yellow tinge • Rocky bed and banks • Presence of foam on debris at water's surface • Hugh volume with high flow rate • Riparian vegetation predominantly groundcover • Moderate weed density including Blackberry (*Rubus fruticosus*) • FGJV was discharging their sediment basin upstream of monitoring point • Monitoring location is adjacent to bridge and electrical transmission tower on top of rocky cliff and Snowy 2.0 laydown area	
LHG-IS	• Monitoring location is adjacent to Mine Trail Road which is frequently used by Snowy 2.0 vehicles, plant and machinery • Rocky bed with no banks • Clear water • Overgrown vegetation, predominantly groundcover • High volume with moderate flow rate • Presence of silt and grass seed husks on bed • Presence of silt deposition • Presence of aquatic vegetation including orange algae	

FIELD OBSERVATIONS

Date	9 and 11 June 2025	
Weather	The weather forecast for 9 June was -2 degrees Celsius (°C) with 90 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 33.8mm of rainfall across 7 to 9 June. At the time of sampling, the weather was overcast with light rain.	
ID	**Observations**	**Photo**
YR2-IS	• Turbid water • High water volume with high flow rate • Presence of bubbles on water's surface • Presence of vegetative detritus • Moderate weed density including Thistle and Blackberry (Rubus fruticosus) • Riparian vegetation consisted of groundcover, shrubs and trees • Rocky banks with sections of exposed soil higher up the bank • Presence of aquatic vegetation including algae	
SSC-IS	• No flow, dry	
TR-RS	• Rocky banks and sandy bed • Monitoring location is adjacent to publicly accessible O'Hares Campground and Talbingo Reservoir ancillary infrastructure • Presence of aquatic vegetation • Clear water • Very low water volume with minimal flow rate • Riparian vegetation consisted of groundcover and trees • Presence of organic detritus • Low weed density	

FIELD OBSERVATIONS

Date	9 and 11 June 2025
Weather	The weather forecast for 9 June was -2 degrees Celsius (°C) with 90 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 33.8mm of rainfall across 7 to 9 June. At the time of sampling, the weather was overcast with light rain.

ID	Observations	Photo
YK-RS	• Presence of aquatic vegetation • Low weed density including Blackberry (Rubus fruticosus) • Undercut bed with eroded banks and sandy bed • Riparian vegetation consisted of groundcover, overhanging vegetation and trees • Murky water with yellow tinge • Monitoring location is adjacent to publicly accessible four-wheel drive (4WD) track • Presence of horse and rabbit scats • Vegetative detritus in water • Very low volume with low flow rate	
YK-IS (D/S)	• Presence of aquatic vegetation • Murky water with slight yellow tinge • Vegetative detritus in water • Riparian vegetation consisted of groundcover, overhanging vegetation and trees • Low weed density including Blackberry (*Rubus fruticosus*) • Low volume with moderate flow rate • Presence of white foam on water's surface • Undermined banks and eroded banks • Monitoring location is adjacent to Elliot Way	

FIELD OBSERVATIONS

Date	9 and 11 June 2025
Weather	The weather forecast for 9 June was -2 degrees Celsius (°C) with 90 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 33.8mm of rainfall across 7 to 9 June. At the time of sampling, the weather was overcast with light rain.

ID	Observations	Photo
NZG-IS	• Presence of aquatic vegetation • Presence of organic detritus • Overhanging vegetation • Clear water with slight yellow tinge • Moderate weed density including Blackberry (*Rubus fruticosus)* • Monitoring location is adjacent to publicly accessible 4WD track • Lower volume with low flow rate • Eroded and undermined banks and pebbly bed • Riparian vegetation consisted of groundcover and trees	
YK-IS	• Clear water with slight yellow tinge • High presence of vegetation • Low volume with low flow rate • Eroded banks • Overhanging vegetation • Presence of vegetative detritus • Riparian vegetation consisted of groundcover, shrubs and trees • Low weed density • Monitoring location is adjacent to Elliott Way, leading towards culvert	

5.1 Results

The results from the construction SWQ monitoring program have been reported for each respective catchment: Yarrangobilly River, Talbingo Reservoir, and Yorkers Creek.

- **Yarrangobilly River catchment** monitoring includes the reference site at Wallace Creek and impact sites at Yarrangobilly River, Wallace Creek, Cave Gully, Lick Hole Gully, and Sheep Station Creek.
- **Yorkers Creek catchment** monitoring includes the reference site at Yorkers Creek and impact sites at Yorkers Creek and New Zealand Gully.
- **Talbingo Reservoir** features a reference site located upstream within the reservoir, serving as an overall reference for monitoring sites in the Yarrangobilly River and Yorkers Creek catchments.

This reference site provides a baseline for the SWQ monitoring program.

The SWQ monitoring results for key physical and chemical parameters, along with site-specific trigger values, are detailed in Section 5.2.1. Results for dissolved and total metals, including site-specific trigger values, are covered in Sections 5.2.2 and 5.2.3. Upon review of the data, observations were noted between the reference and impact sites.

The complete table of results is attached in Appendix C.

5.1.1 Key Physical and Chemical Parameters

See below for results of key physical and chemical parameters.

5.1.1.1 Temperature

In June 2025, temperatures (°C) in the Yarrangobilly River catchment decreased compared to May 2025, ranging from 5.8°C to 9.0°C, refer to Figure 4. Temperatures in Talbingo Reservoir also decreased from 12.3°C in May 2025 to 10.5°C, refer to Figure 5. Temperatures in the Yorkers Creek catchment showed a marginal increase across all sites in June 2025 compared with May figures, ranging from 5.4°C to 5.9°C, as illustrated in Figure 6.

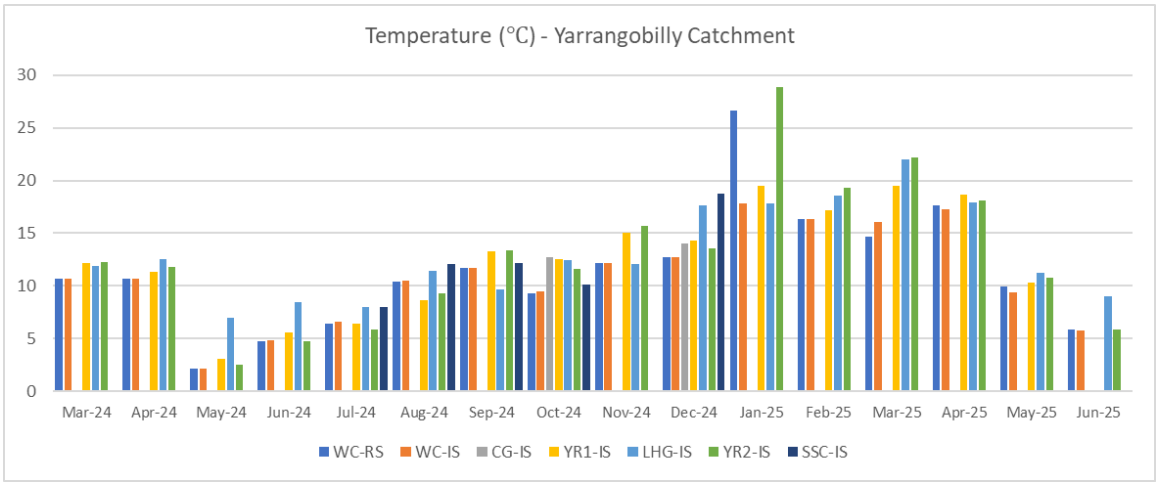

FIGURE 4 : TEMPERATURE FOR YARRANGOBILLY RIVER CATCHMENT

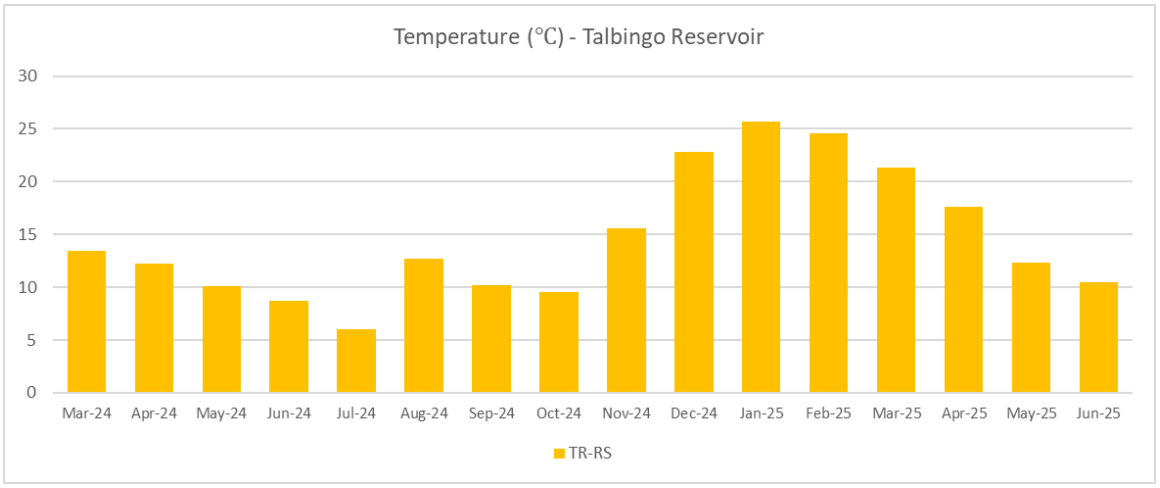

FIGURE 5: TEMPERATURE FOR TALBINGO RESERVOIR

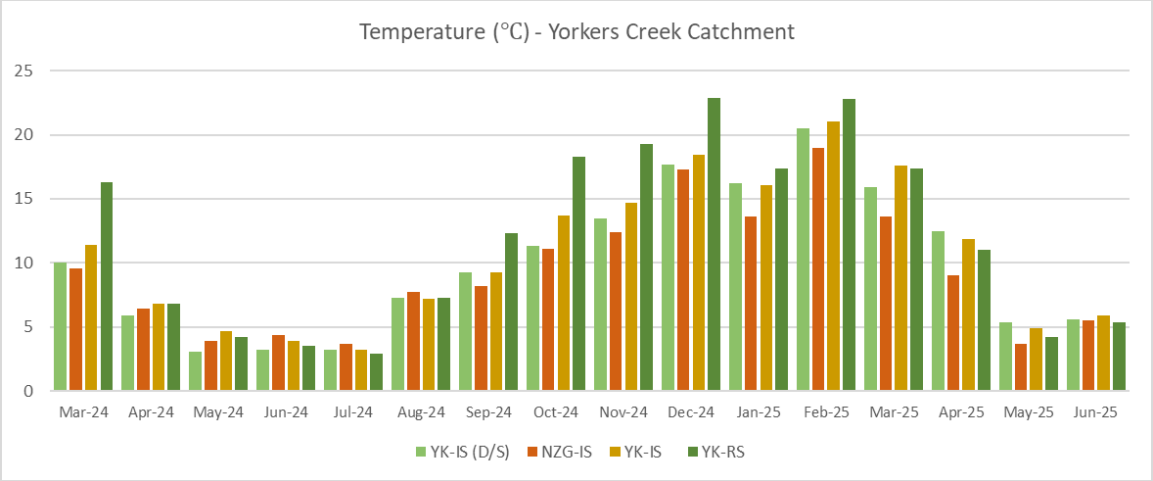

FIGURE 6: TEMPERATURE FOR YORKERS CREEK CATCHMENT

5.1.1.2 pH

pH values exceeded the June to November SSGV (7.62) in June 2025 for majority of the Yarrangobilly River catchment sites except for LHG-IS, refer Figure 7. Similarly, Talbingo Reservoir was higher than the June to November SSGV (7.59) recording a value of 8.34, refer to Figure 8. All sites in Yorkers Creek catchment exceeded the June to November SSGV (6.61), refer Figure 9.

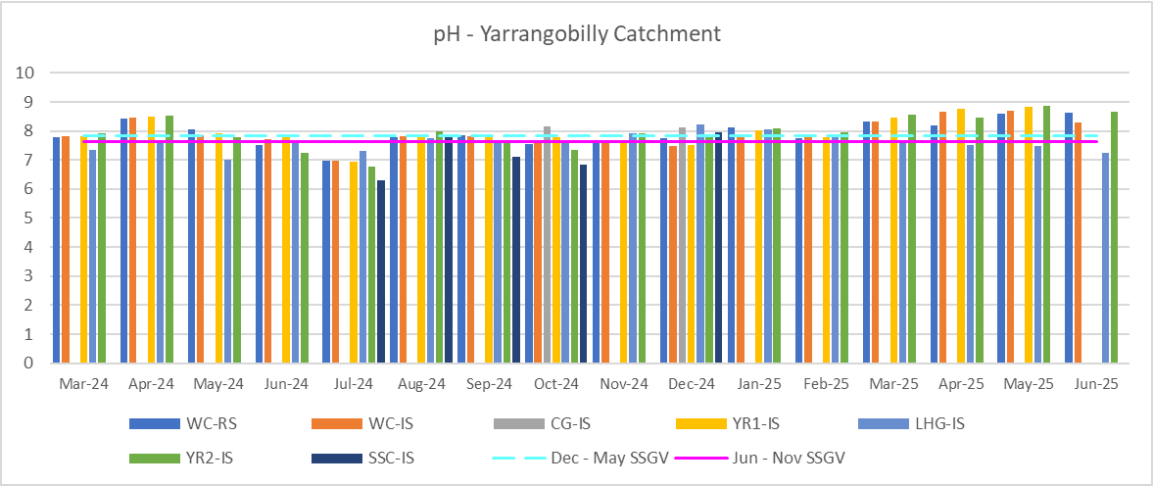

FIGURE 7: PH FOR YARRANGOBILLY RIVER CATCHMENT

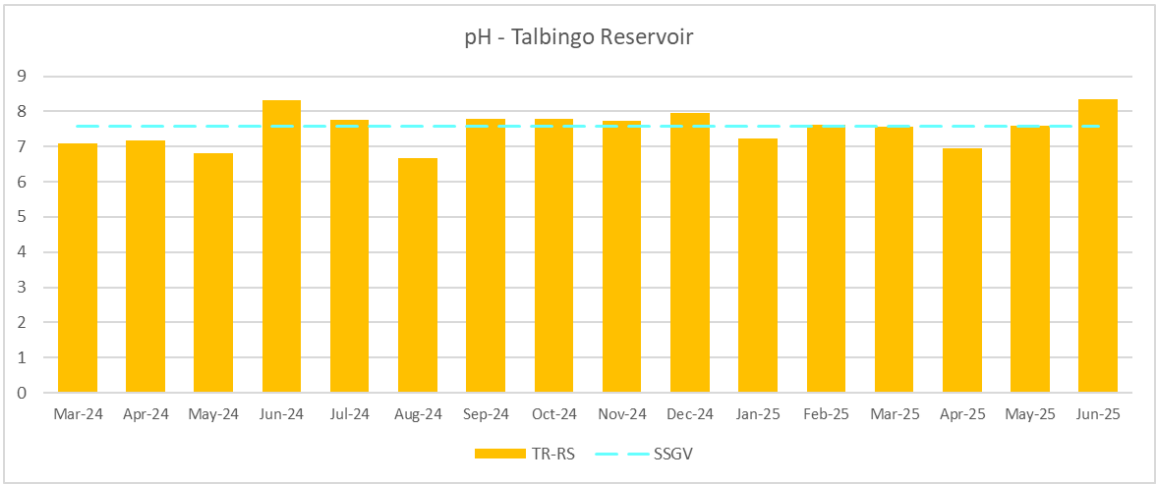

FIGURE 8: PH FOR TALBINGO RESERVOIR

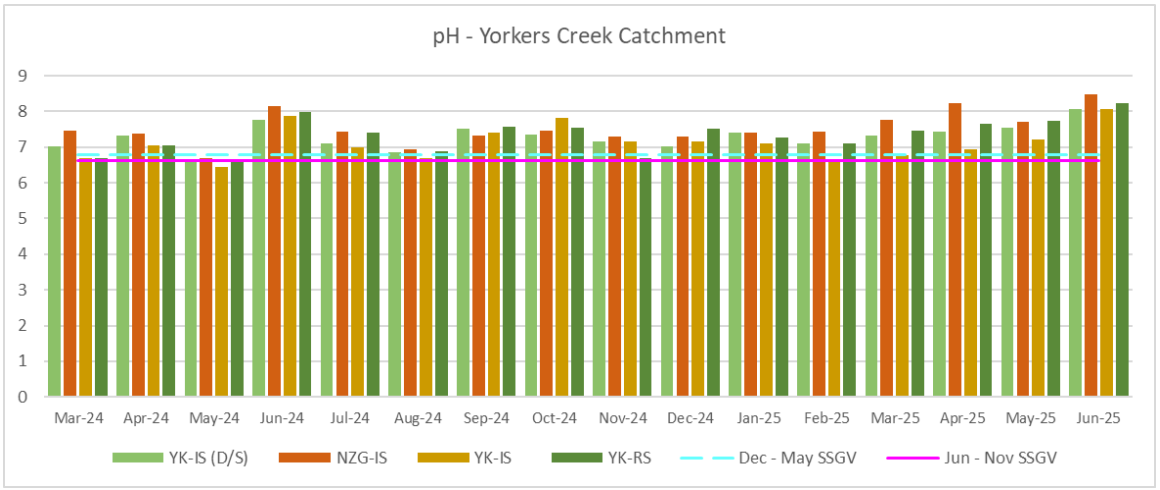

FIGURE 9: PH FOR YORKERS CREEK CATCHMENT

5.1.1.3 Dissolved Oxygen

June 2025 DO (%) levels were below the respective June to November SSGV at all sites across the three catchments, except YR2-IS in Yarrangobilly River catchment, which was marginally above the SSGV, refer to Figure 10 to Figure 12.

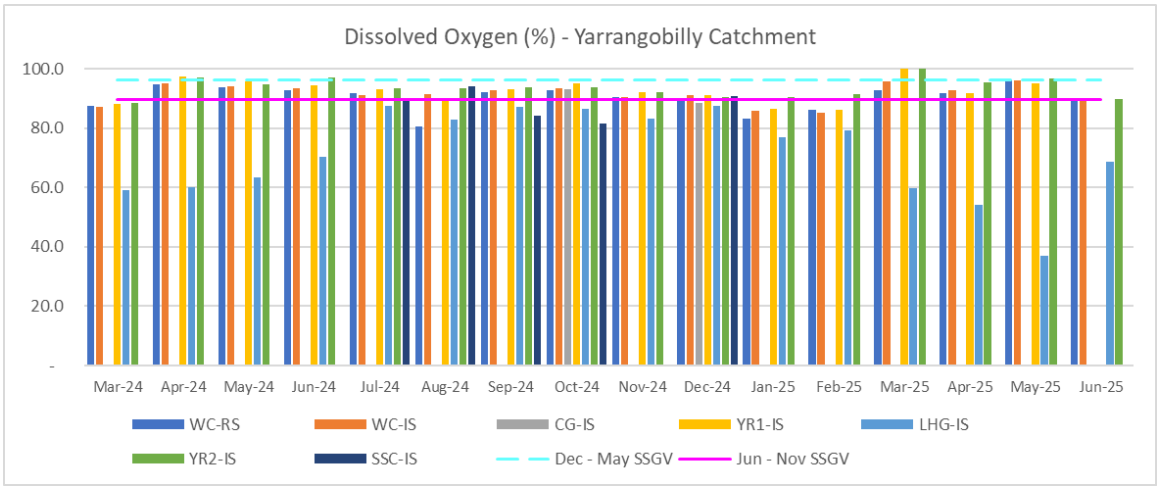

FIGURE 10: DO FOR YARRANGOBILLY RIVER CATCHMENT

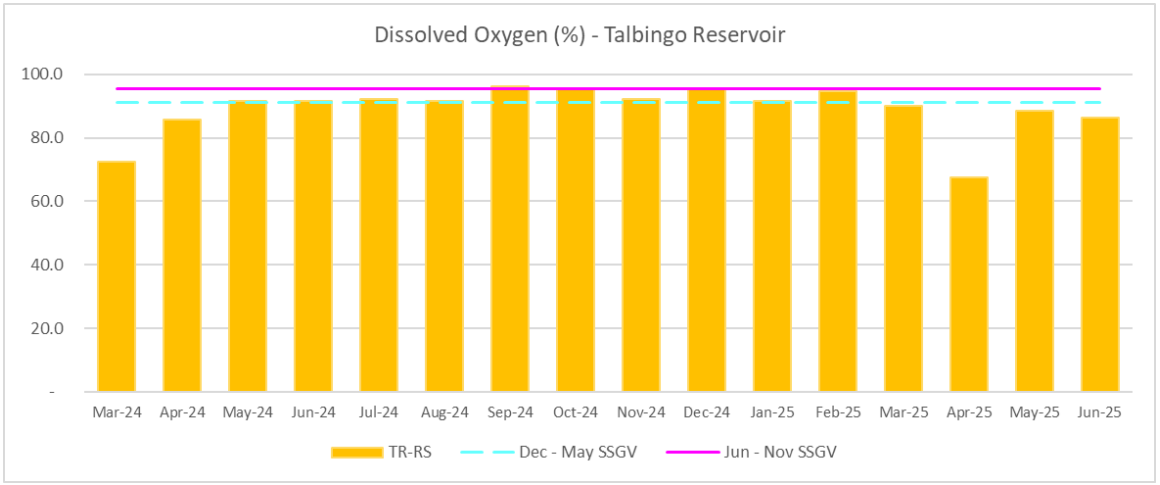

FIGURE 11: DO FOR TALBINGO RESERVOIR

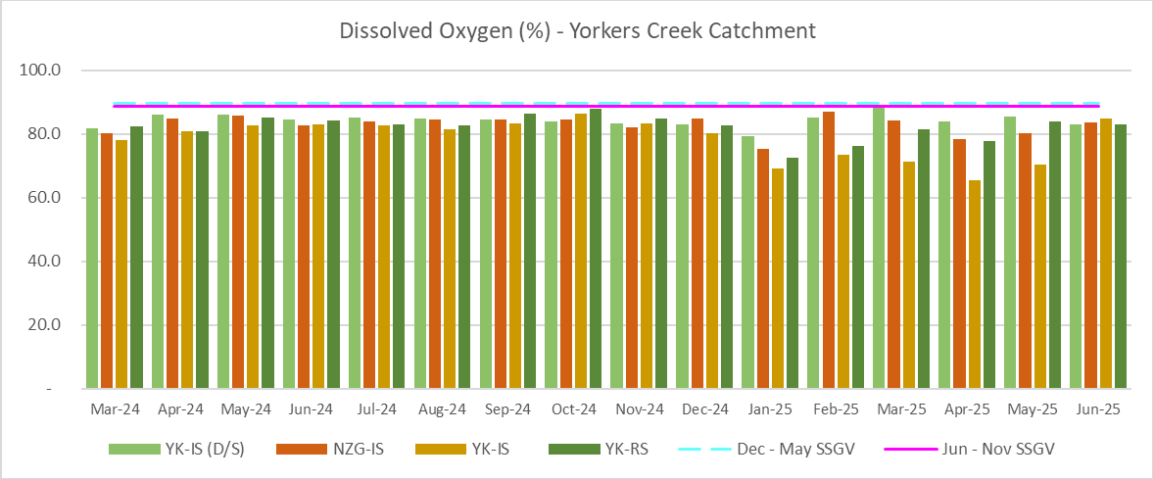

FIGURE 12: DO FOR YORKERS CREEK CATCHMENT

5.1.1.4 Specific Conductance

SPC (µS/cm) levels in the Yarrangobilly River catchment were within the June to November SSGV (88 µS/cm) at all sites except for LHG-IS, which has always exceeded the SSGV, refer Figure 13. SPC levels were also well-within the respective June to November SSGV for Talbingo Reservoir and Yorkers Creek catchment, refer Figure 14 and Figure 15.

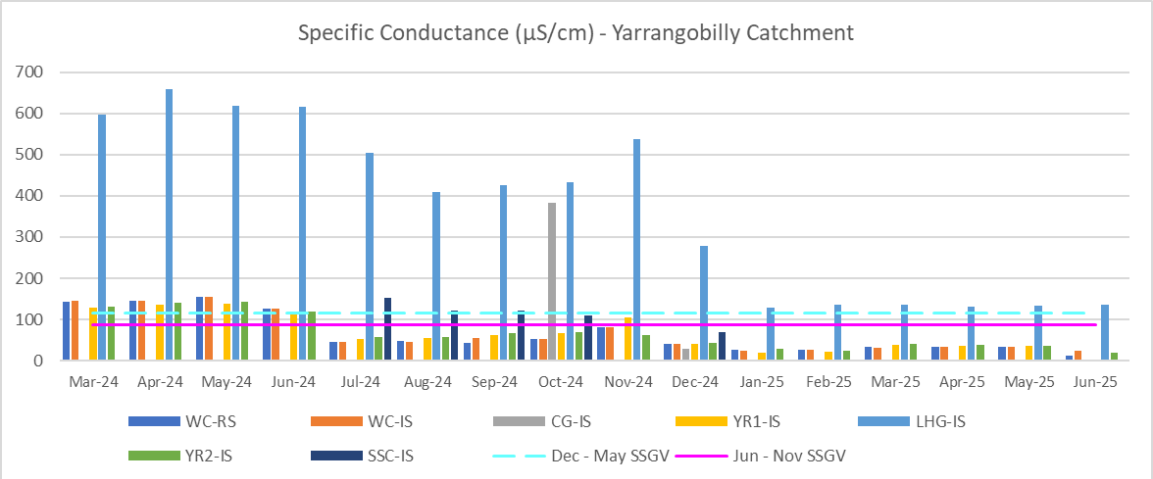

FIGURE 13: SPC FOR YARRANGOBILLY RIVER CATCHMENT

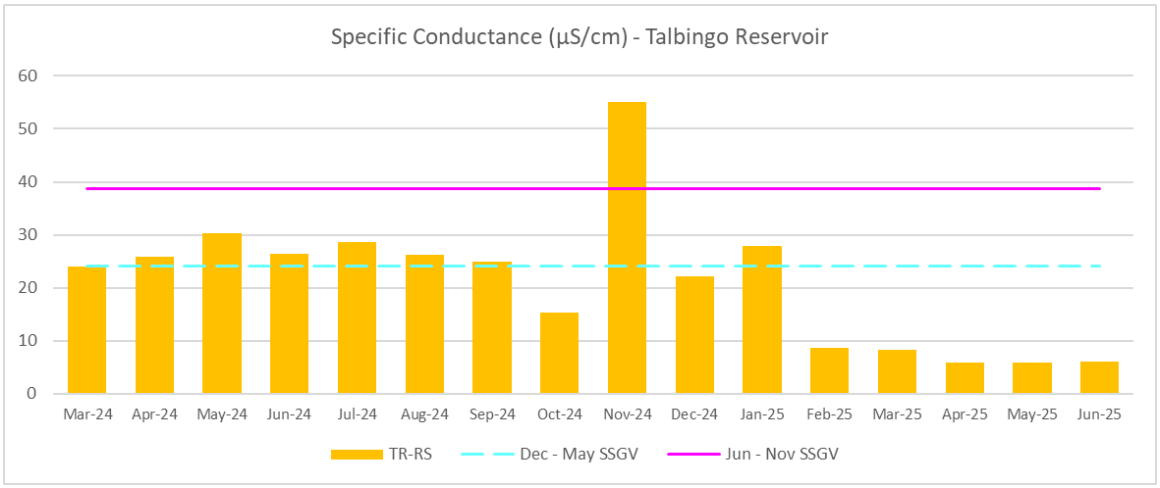

FIGURE 14: SPC FOR TALBINGO RESERVOIR

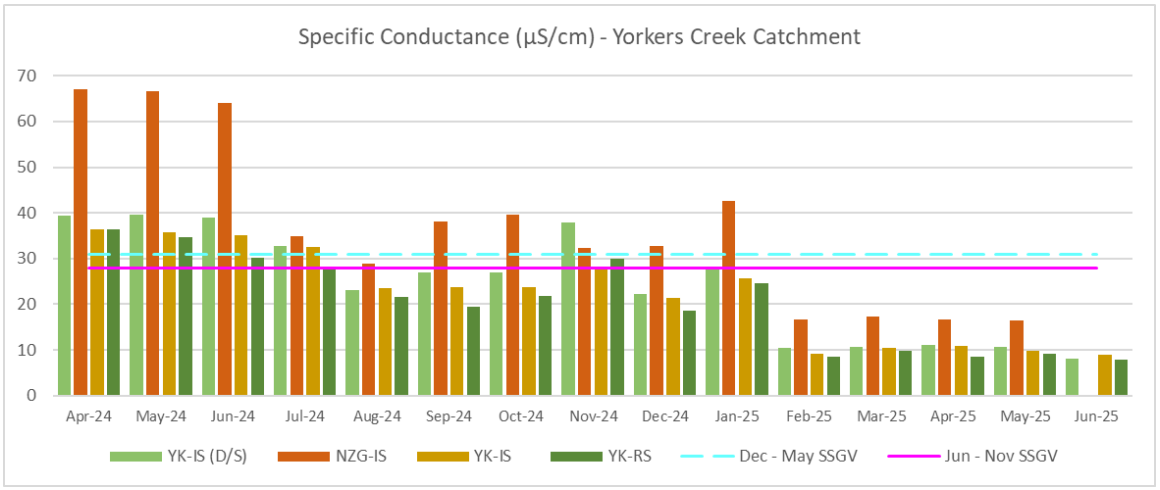

FIGURE 15: SPC FOR YORKERS CREEK CATCHMENT

5.1.1.5 Electrical Conductivity

Electrical Conductivity (µS/cm) was not recorded in June 2025, refer to Figure 16 to Figure 18.

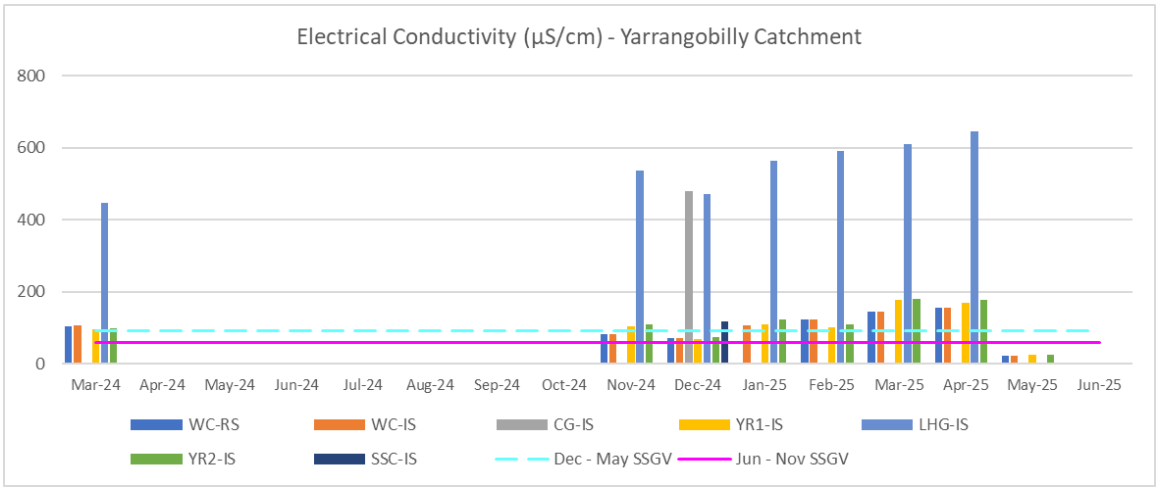

FIGURE 16: EC FOR YARRANGOBILLY RIVER CATCHMENT

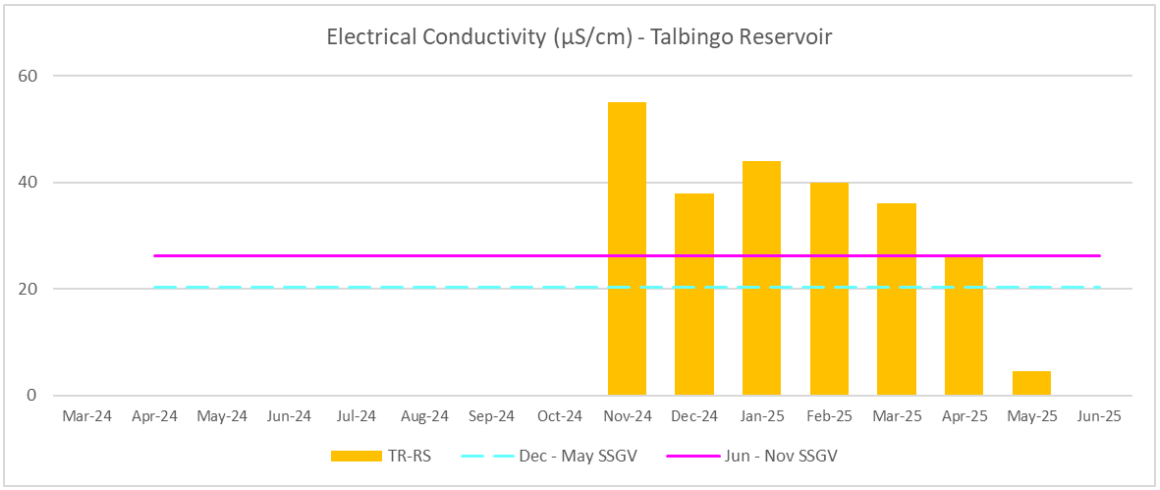

FIGURE 17: EC FOR TALBINGO RESERVOIR

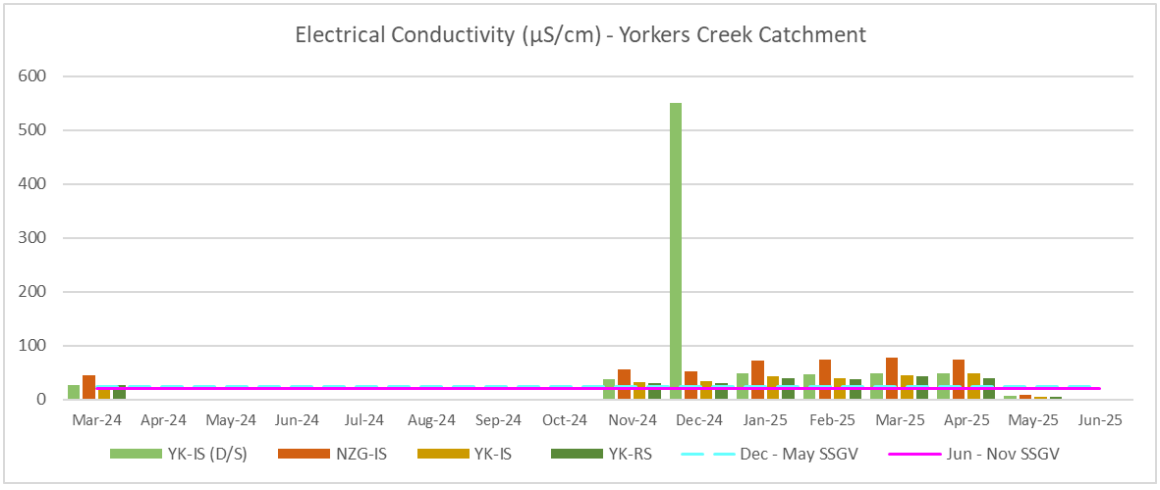

FIGURE 18: EC FOR YORKERS CREEK CATCHMENT

5.1.1.6 Turbidity

Turbidity (NTU) levels were within the June to November SSGV (5.12) at all sites within Yarrangobilly River catchment, except YR2-IS, which recorded a value higher than the SSGV, refer Figure 19. At Talbingo Reservoir and Yorkers Creek catchment sites, NTU values were above the June to November SSGV, except for NZG-IS, which was within the SSGV, refer to Figure 20 and Figure 21.

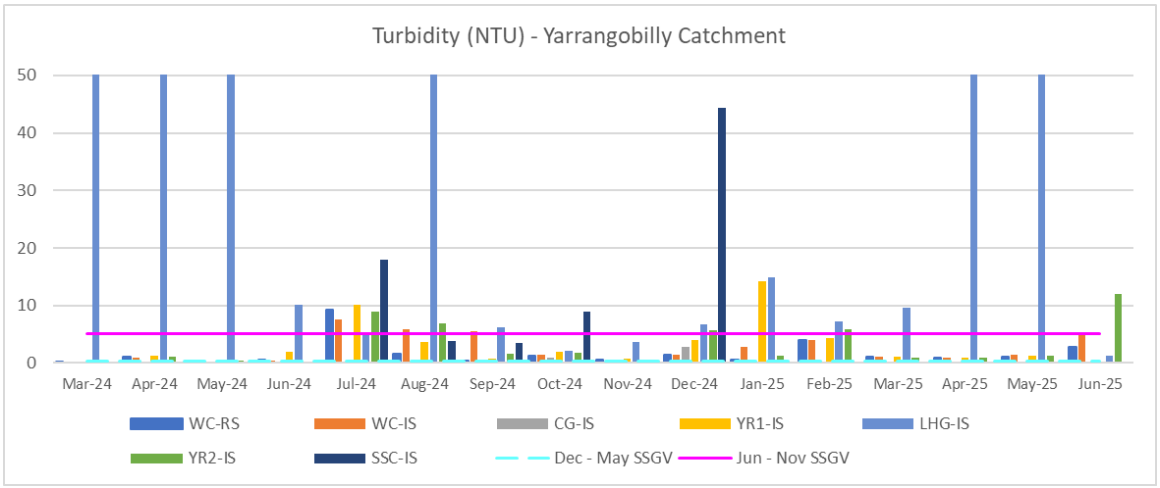

FIGURE 19: TURBIDITY FOR YARRANGOBILLY RIVER CATCHMENT

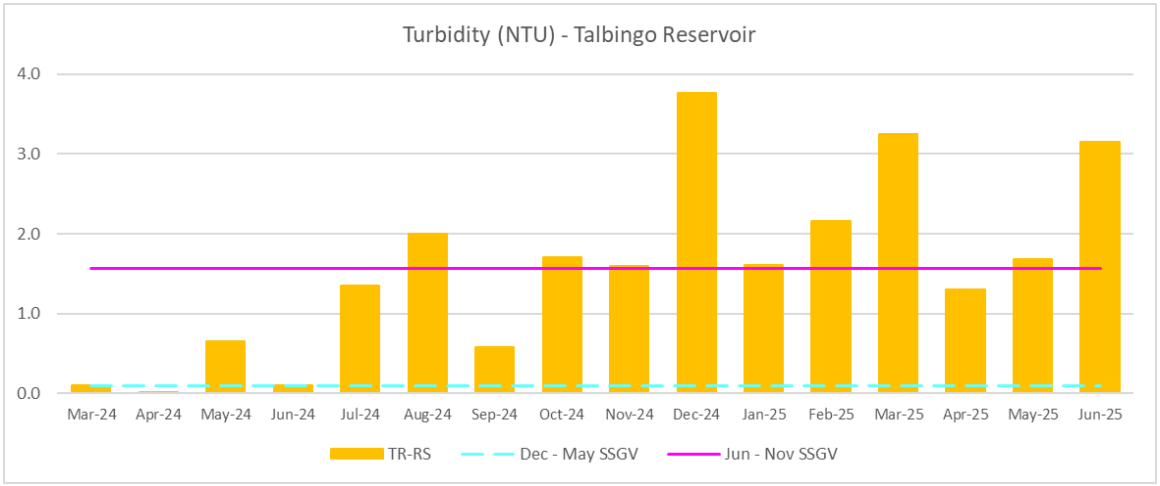

FIGURE 20: TURBIDITY FOR TALBINGO RESERVOIR

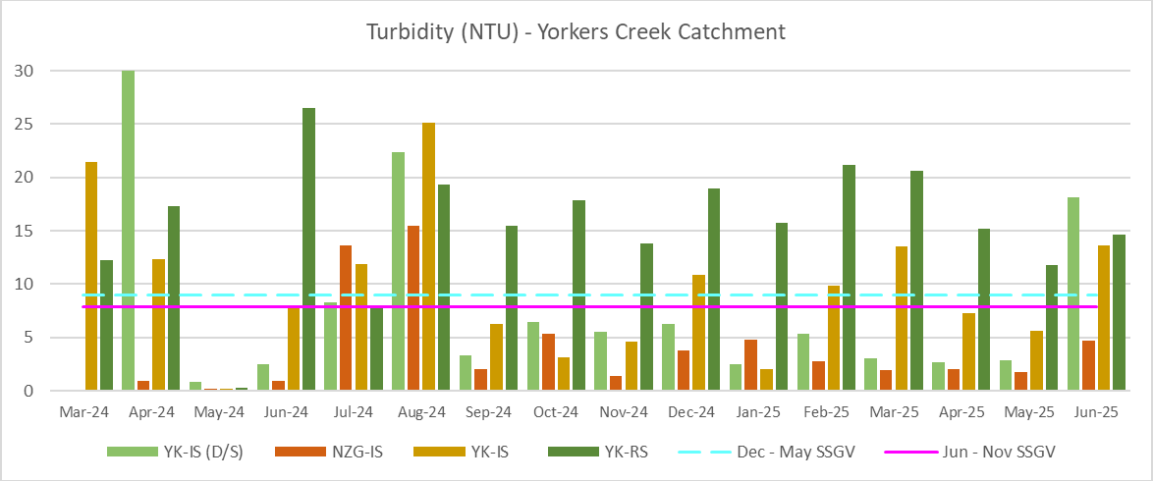

FIGURE 21: TURBIDITY FOR YORKERS CREEK CATCHMENT

5.1.1.7 Total Suspended Solids

In the Yarrangobilly River catchment, all sites exceeded June to November SSGV (1.0 mg/L) for TSS, except for WC-IS, which was below the LOR, refer to Figure 22. Talbingo Reservoir was also below the LOR, refer to Figure 23. In Yorkers Creek catchment, all sites exceeded the June to November SSGV (0.2 mg/L), except for NZG-IS, which was below the LOR, refer to Figure 24.

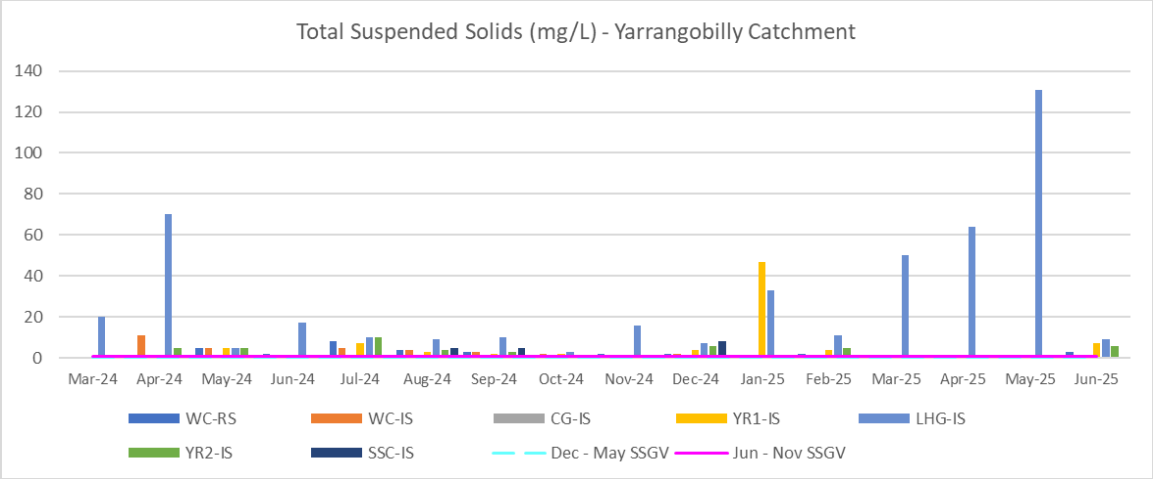

FIGURE 22: TSS FOR YARRANGOBILLY RIVER CATCHMENT

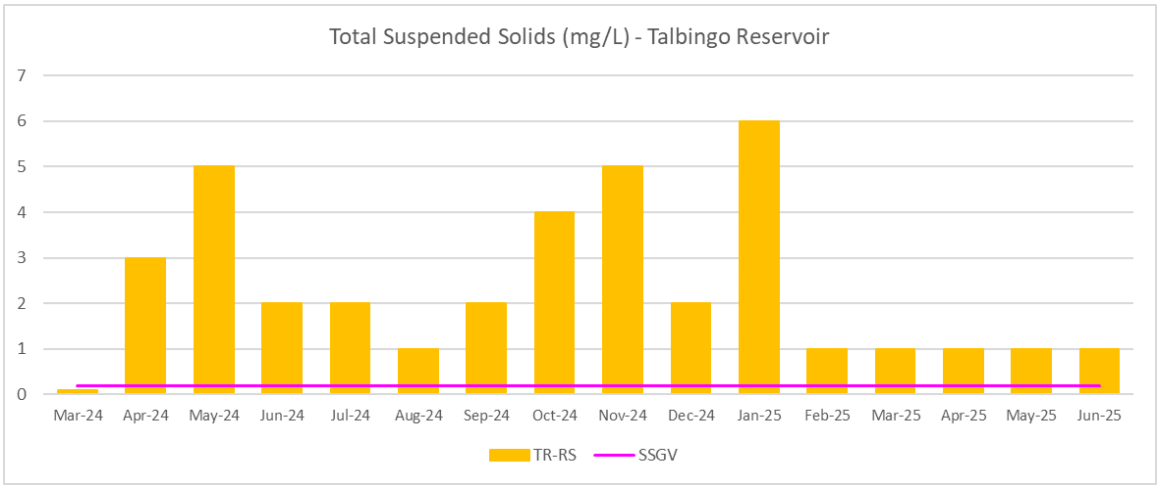

FIGURE 23: TSS FOR TALBINGO RESERVOIR

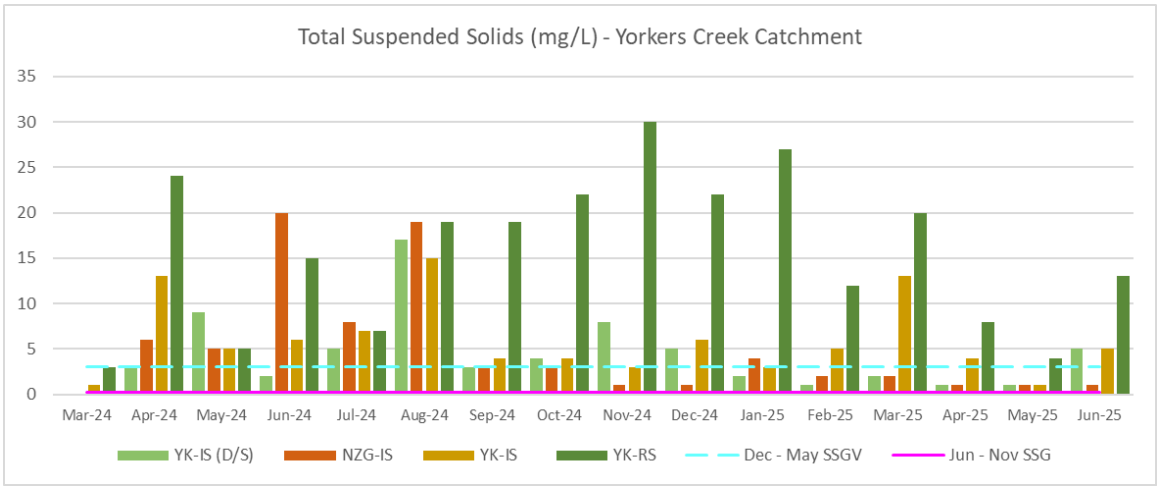

FIGURE 24: TSS FOR YORKERS CREEK CATCHMENT

5.1.1.8 Total Dissolved Solids

In June 2025, all sites across all catchments exceeded the June to November SSGV for TDS (mg/L). Within the Yarrangobilly River catchment, LHG-IS continued to measure significantly higher than the June to November SSGV (39 mg/L) recording a value of 452 mg/L, refer to Figure 25. Talbingo Reservoir also exceeded the June to November SSGV (15 mg/L), returning a result of 56 mg/L, refer to Figure 26. All sites within the Yorkers Creek catchment exceeded the June to November SSGV (10 mg/L), with results ranging from 85 mg/L to 90 mg/L, refer to Figure 27.

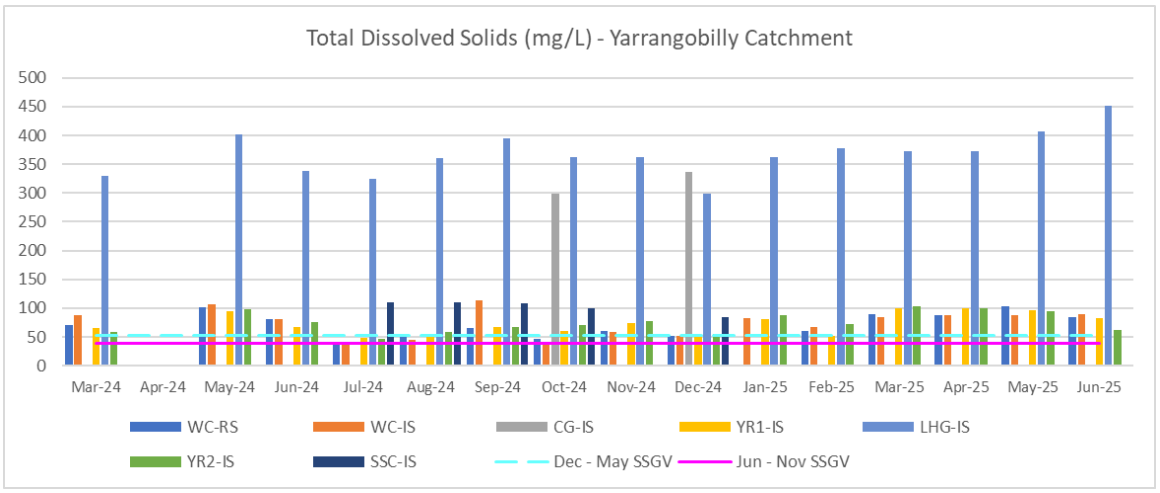

FIGURE 25 TDS FOR YARRANGOBILLY RIVER CATCHMENT

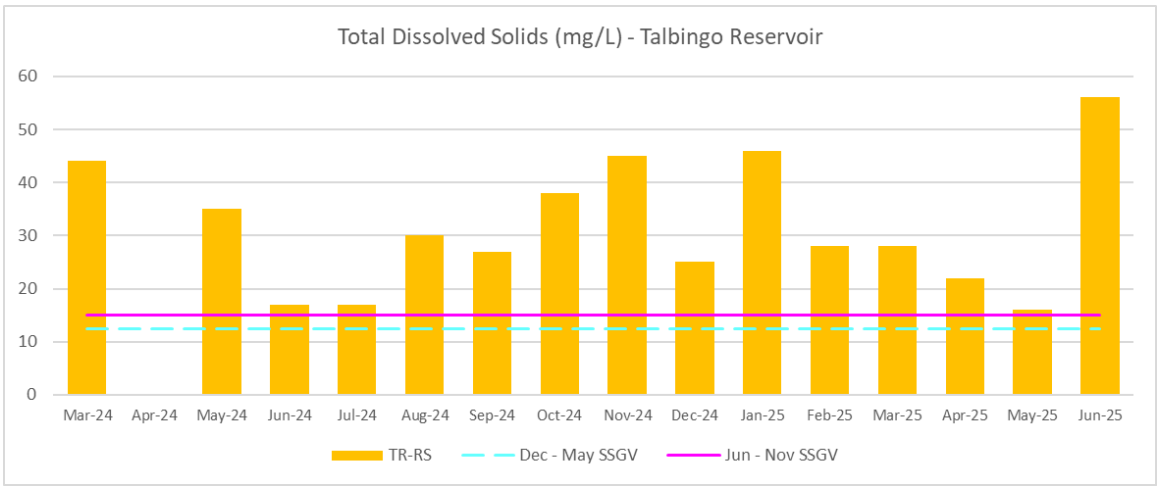

FIGURE 26 TDS FOR TALBINGO RESERVOIR

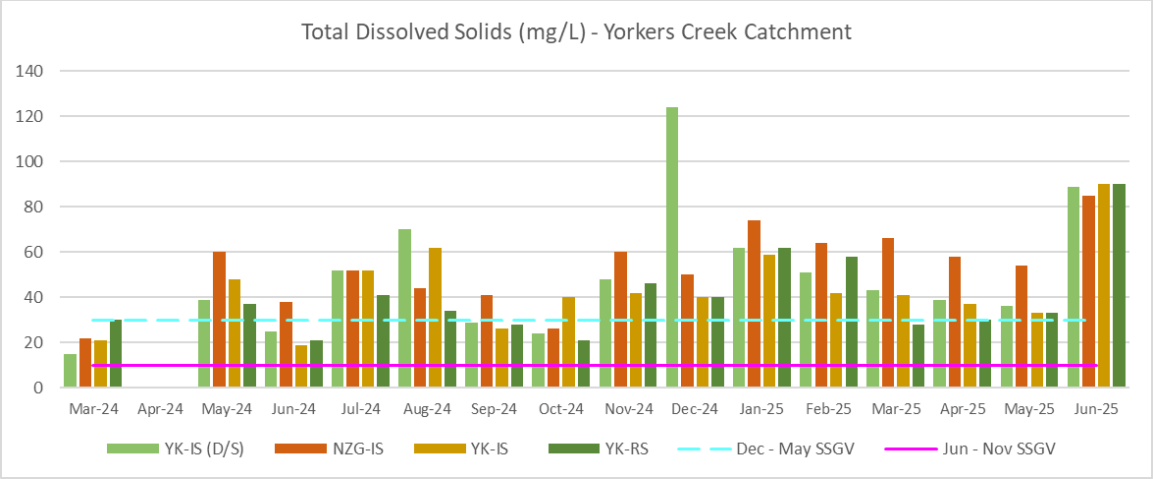

FIGURE 27 TDS FOR YORKERS CREEK CATCHMENT

5.1.1.9 Redox

Redox (mV) was not measured during the month of June 2025, refer to Figure 28 to Figure 30.

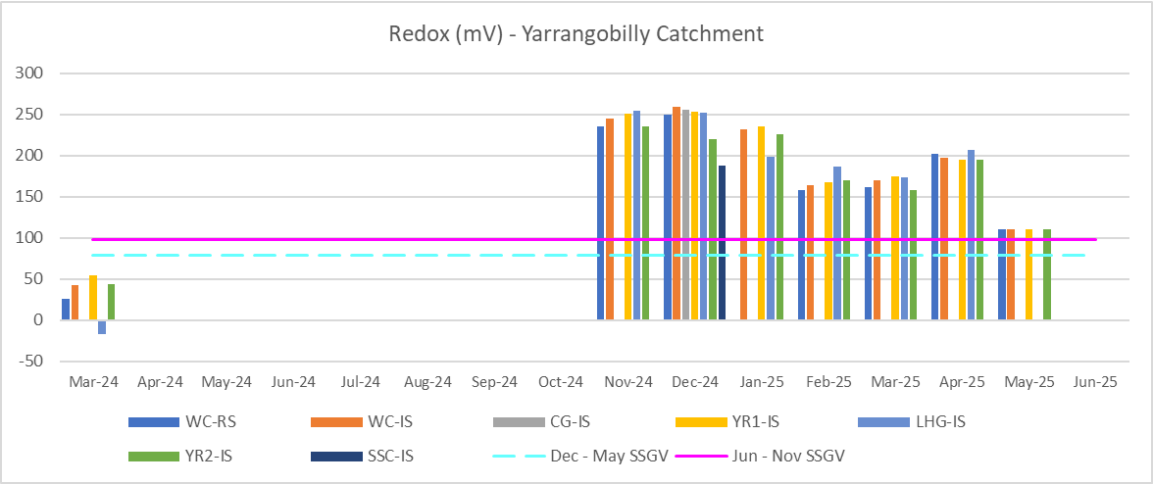

FIGURE 28: REDOX FOR YARRANGOBILLY RIVER CATCHMENT

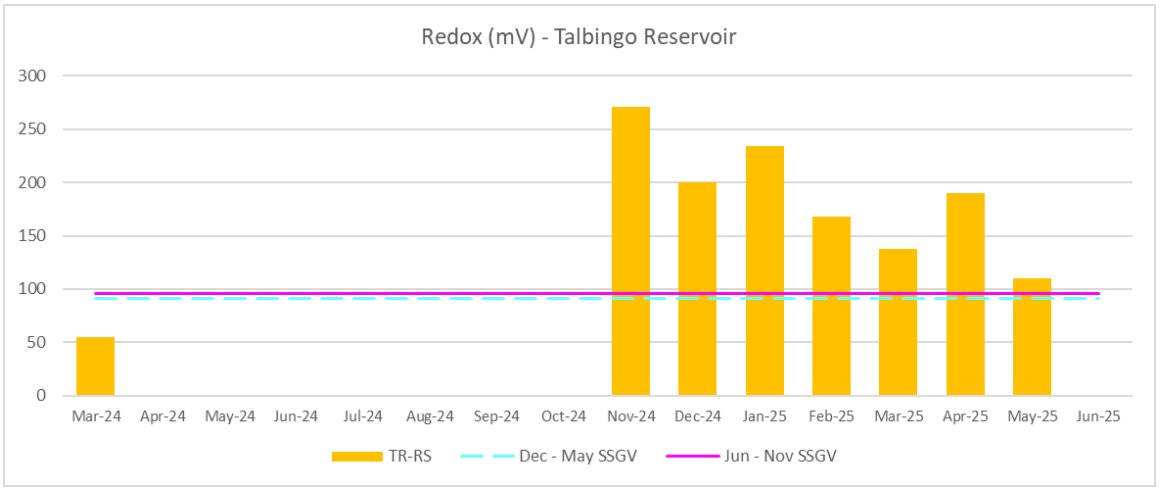

FIGURE 29: REDOX FOR TALBINGO RESERVOIR

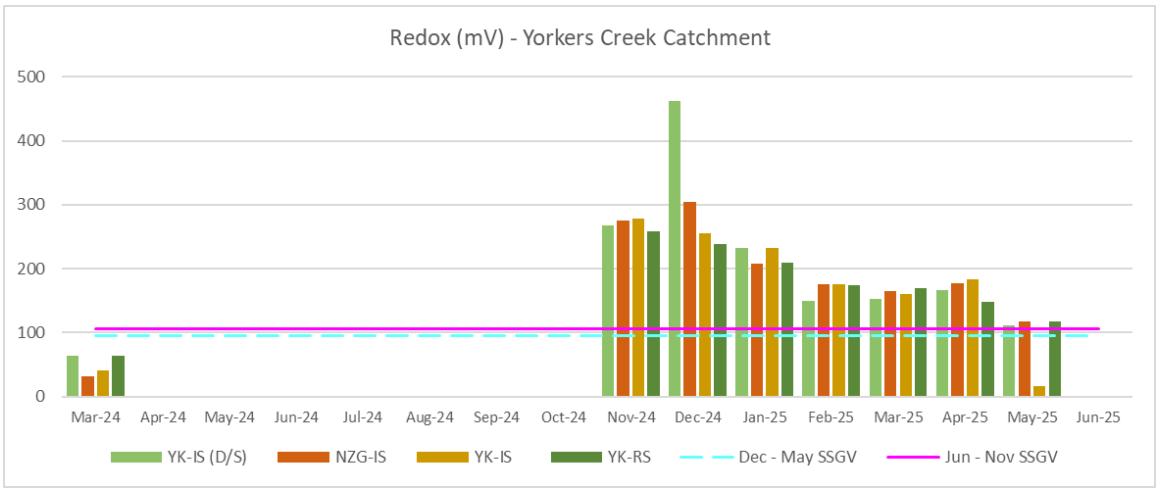

FIGURE 30: REDOX FOR YORKERS CREEK CATCHMENT

5.1.1.10 Nitrogen Oxides

In June 2025, Nitrogen oxides (mg/L) levels exceeded the June to November SSGV (0.015 mg/L) across all sites within all three catchments, except for LHG-IS, YK-IS(DS), NZG-IS and YK-IS, which were below the LOR. YR2-IS in Yarrangobilly River catchment recorded a result well-above the SSGV at 8.13 mg/L, refer to Figure 31 to Figure 33.

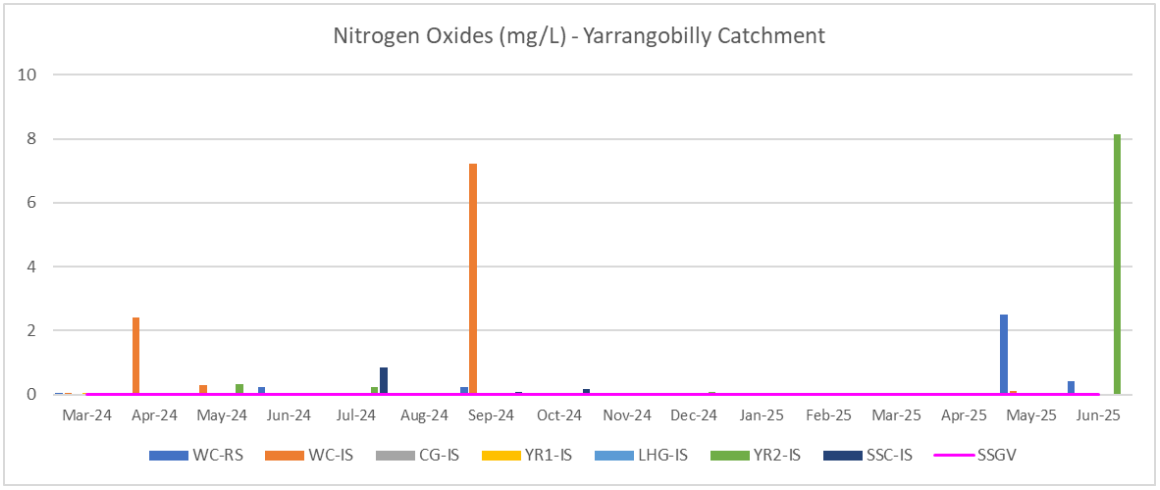

FIGURE 31: NITROGEN OXIDES FOR YARRANGOBILLY RIVER CATCHMENT

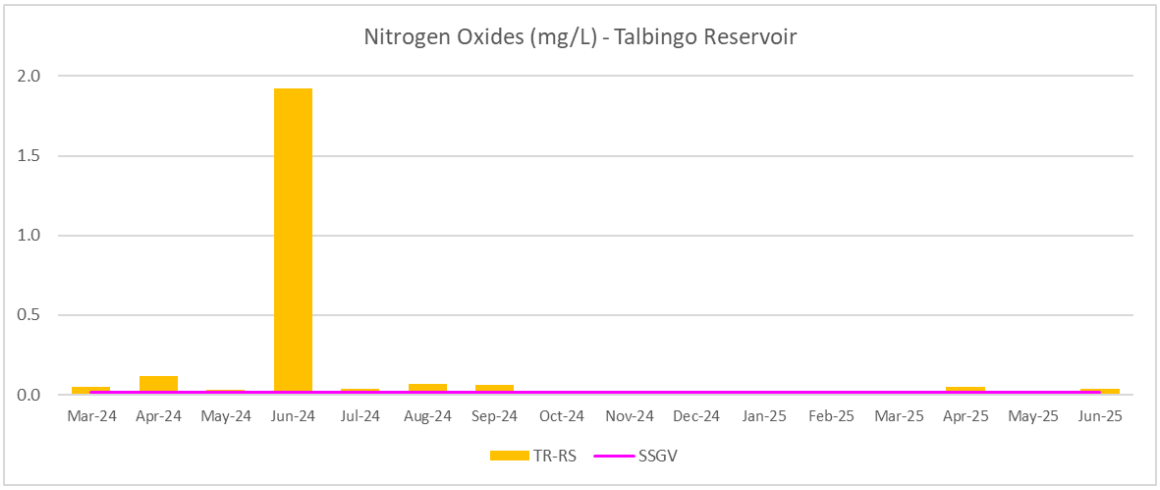

FIGURE 32: NITROGEN OXIDES FOR TALBINGO RESERVOIR

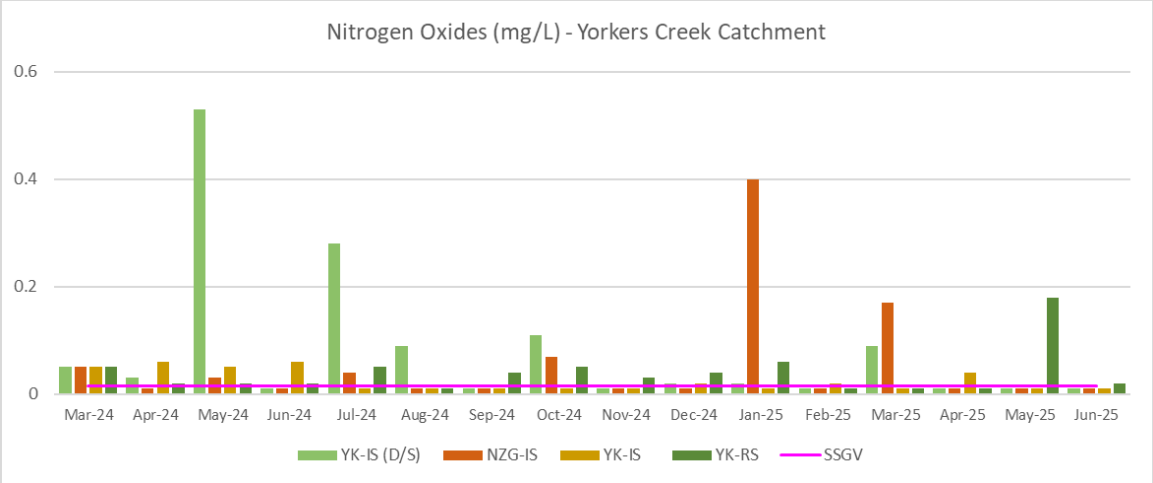

FIGURE 33: NITROGEN OXIDES FOR YORKERS CREEK CATCHMENT

5.1.1.11 Ammonia

Ammonia (mg/L) levels exceeded the June to November SSGV (0.013 mg/L) at WC-IS, YR1-IS and LHG-IS in the Yarrangobilly River catchment. Exceedances were also recorded at Talbingo Reservoir (TR-RS) and YK-IS in the Yorkers Creek catchment. All other sites were below the LOR, refer to Figure 34 to Figure 36.

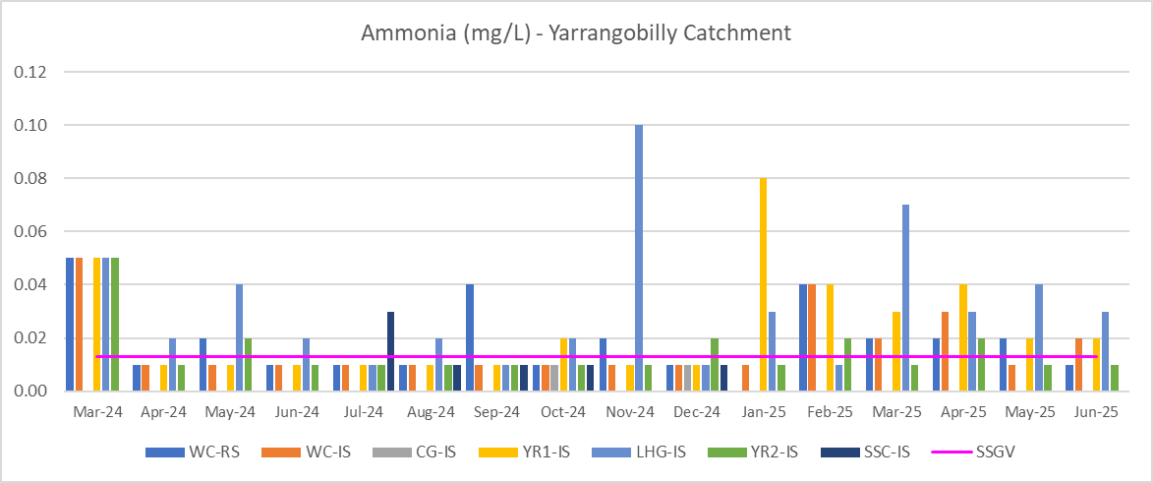

FIGURE 34: AMMONIA FOR YARRANGOBILLY RIVER CATCHMENT

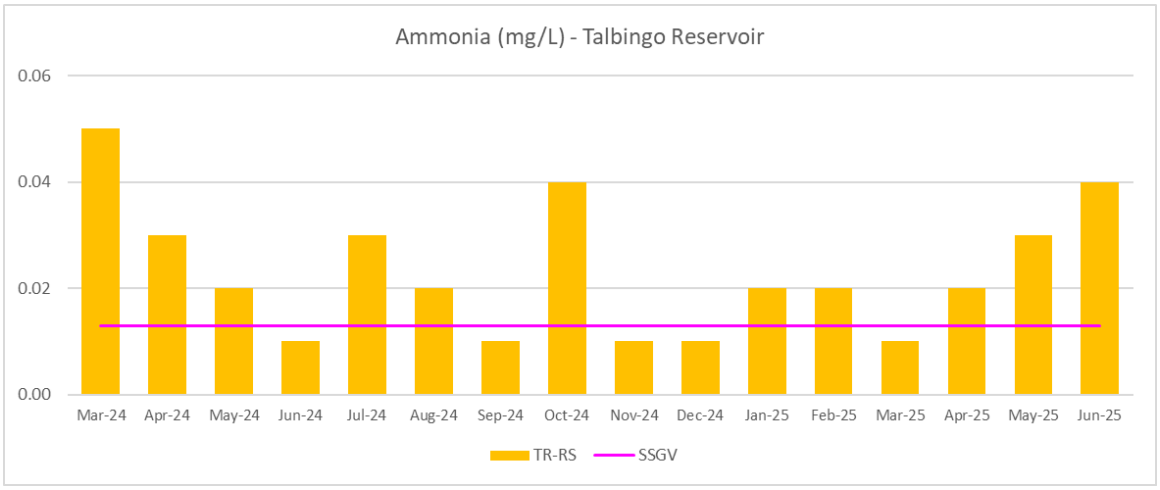

FIGURE 35: AMMONIA FOR TALBINGO RESERVOIR

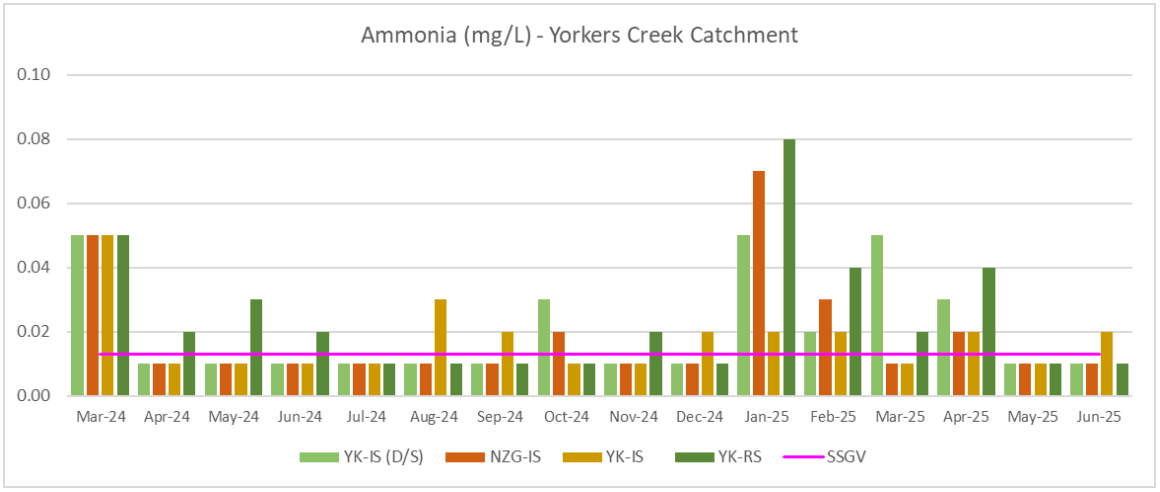

FIGURE 36: AMMONIA FOR YORKERS CREEK CATCHMENT

5.1.1.12 Cyanide

Cyanide (mg/L) was below the LOR at all sites across all three catchments, refer Figure 37 to Figure 39.

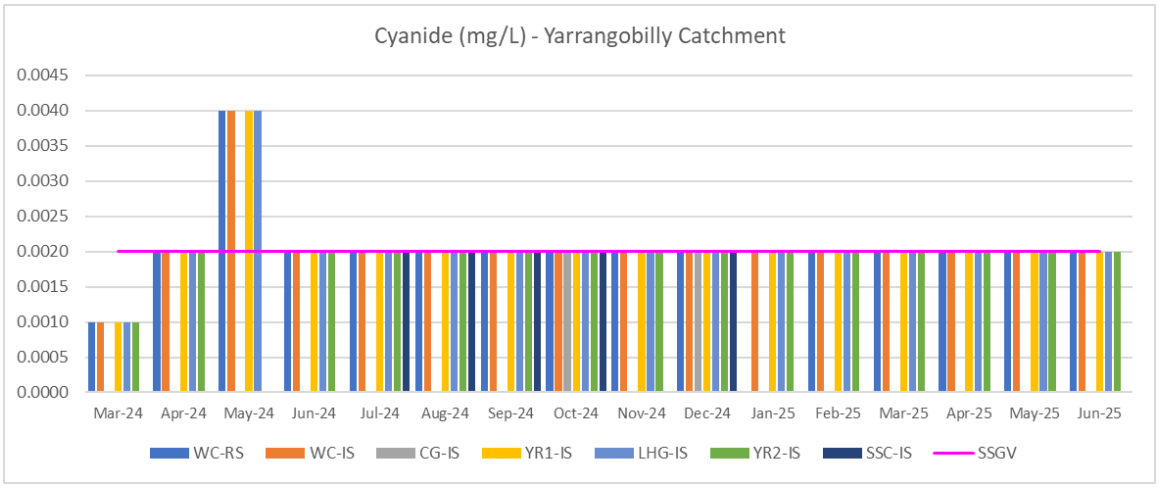

FIGURE 37: CYANIDE FOR YARRANGOBILLY RIVER CATCHMENT

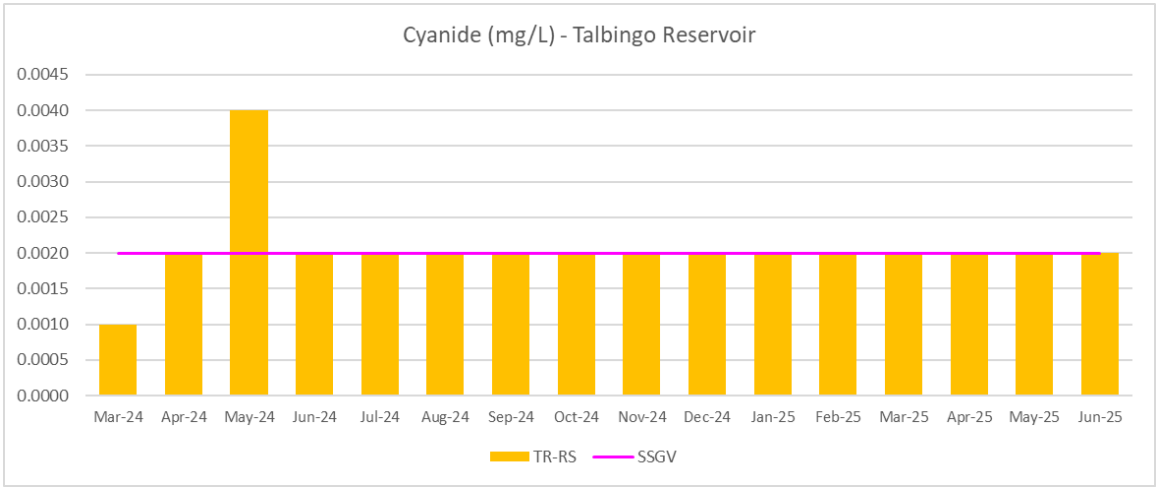

FIGURE 38: CYANIDE FOR TALBINGO RESERVOIR

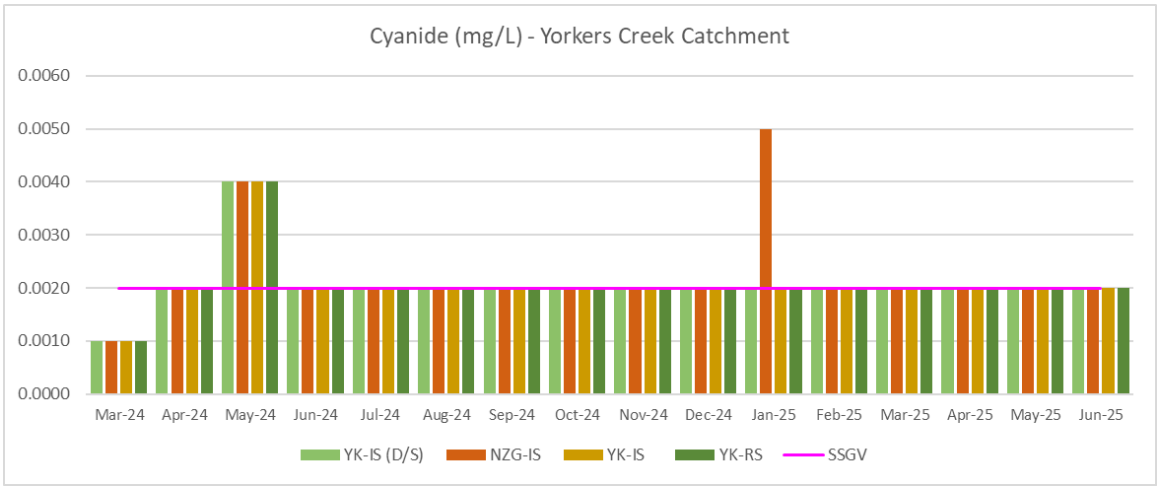

FIGURE 39: CYANIDE FOR YORKERS CREEK CATCHMENT

5.1.1.13 Total Hardness

In June 2025, $CaCO_3$ (mg/L) levels exceeded the June to November SSGV at all locations, except at TR-RS in Talbingo Reservoir which was within the SSGV, refer Figure 40, Figure 41 and Figure 42. A notable exceedance of the SSGV continued to be recorded at LHG-IS in the Yarrangobilly River catchment.

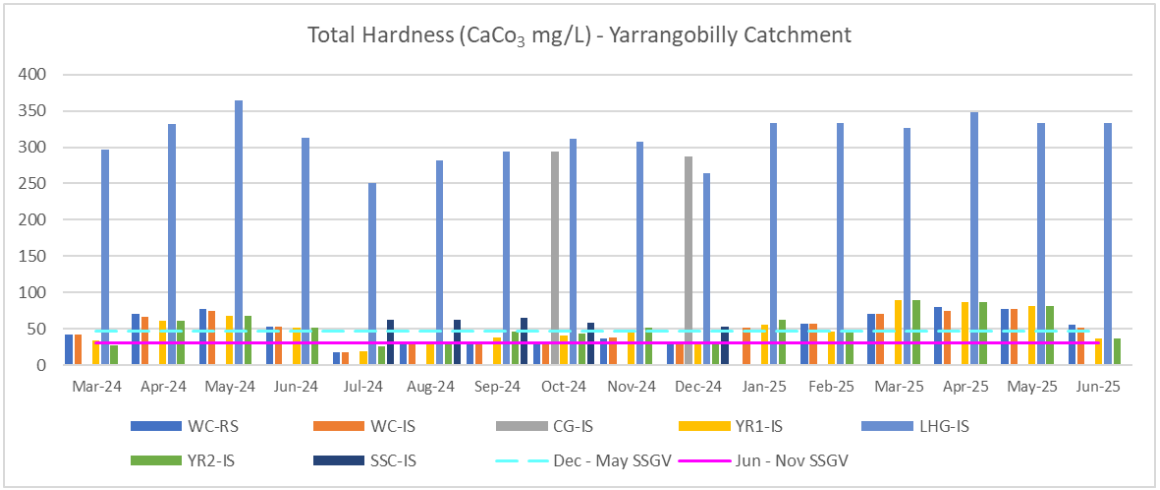

FIGURE 40: $CACO_3$ FOR YARRANGOBILLY RIVER CATCHMENT

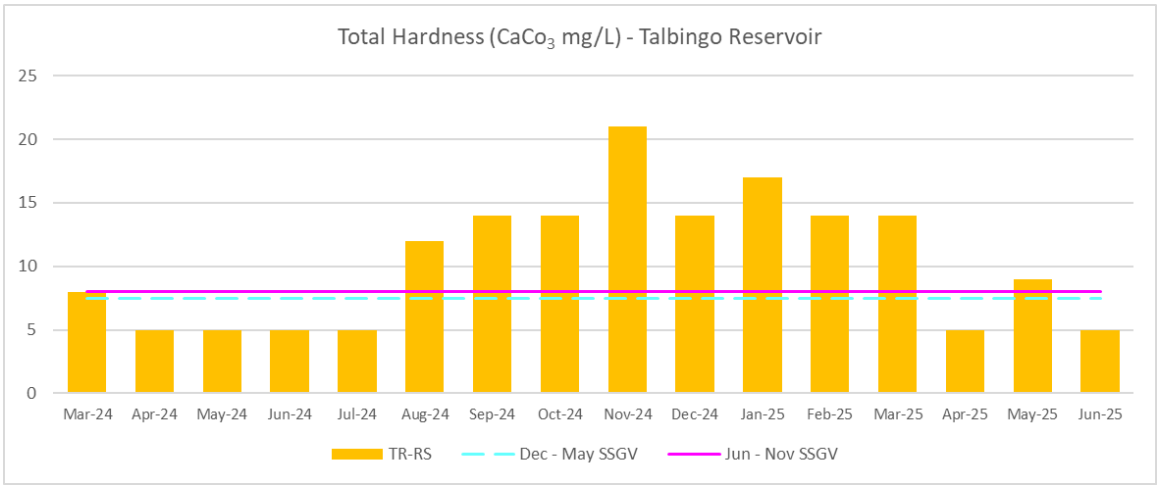

FIGURE 41: $CACO_3$ FOR TALBINGO RESERVOIR

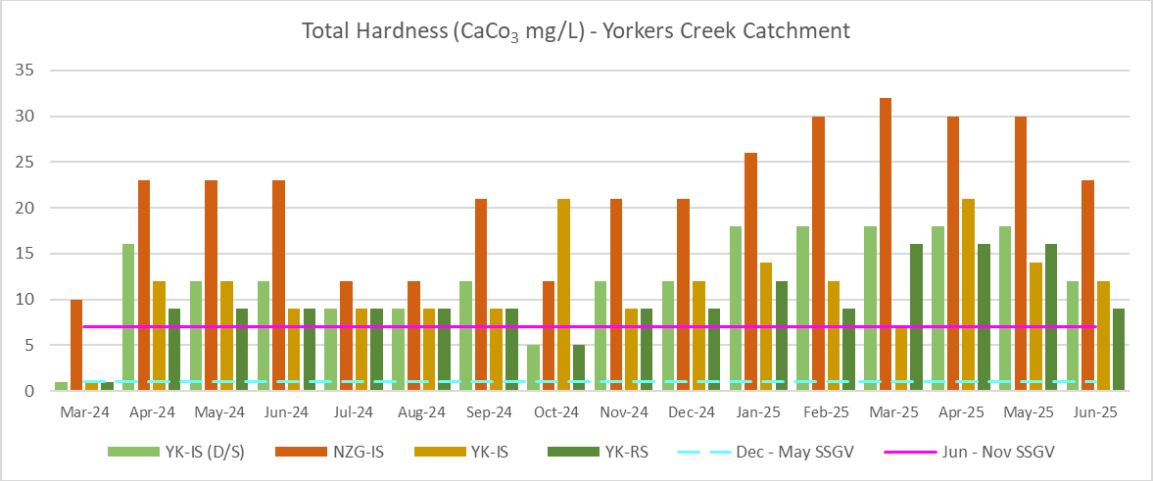

FIGURE 42: $CACO_3$ FOR YORKERS CREEK CATCHMENT

5.1.1.14 Total Kjeldahl Nitrogen

TKN (mg/L) values for June 2025 exceeded the June to November SSGV (0.2 mg/L) at a number of sites in the Yarrangobilly River catchment including WC-IS, YR1-IS, and YR2-IS. In the same catchment, WC-RS and LHG-IS were on-par with the SSGV, refer Figure 43. Talbingo Reservoir was below the LOR, refer to Figure 44. In Yorkers Creek catchment, YK-RS and YK-IS(DS) exceeded the SSGV, while YK-IS was on-par with the SSGV, refer to Figure 45.

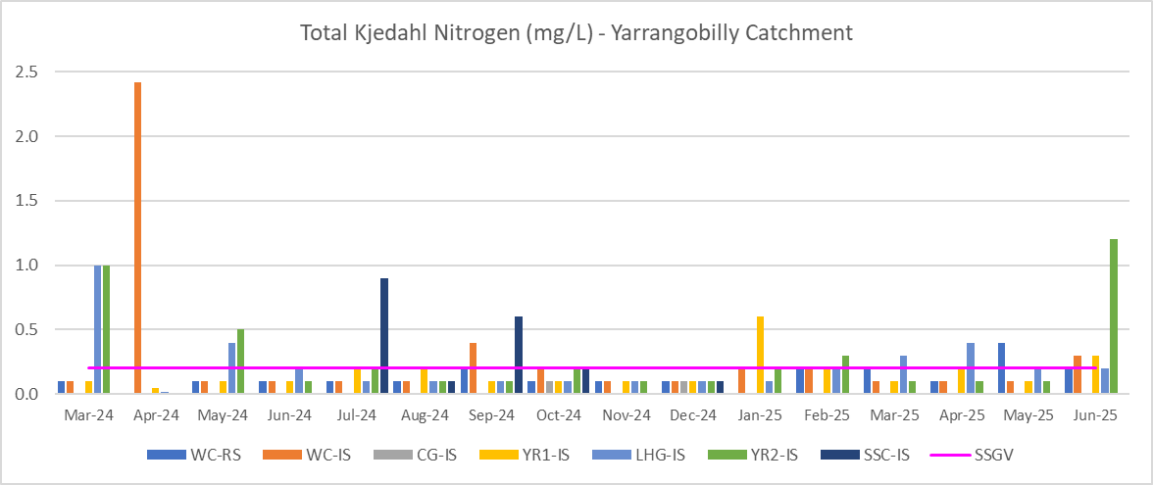

FIGURE 43: TKN FOR YARRANGOBILLY RIVER CATCHMENT

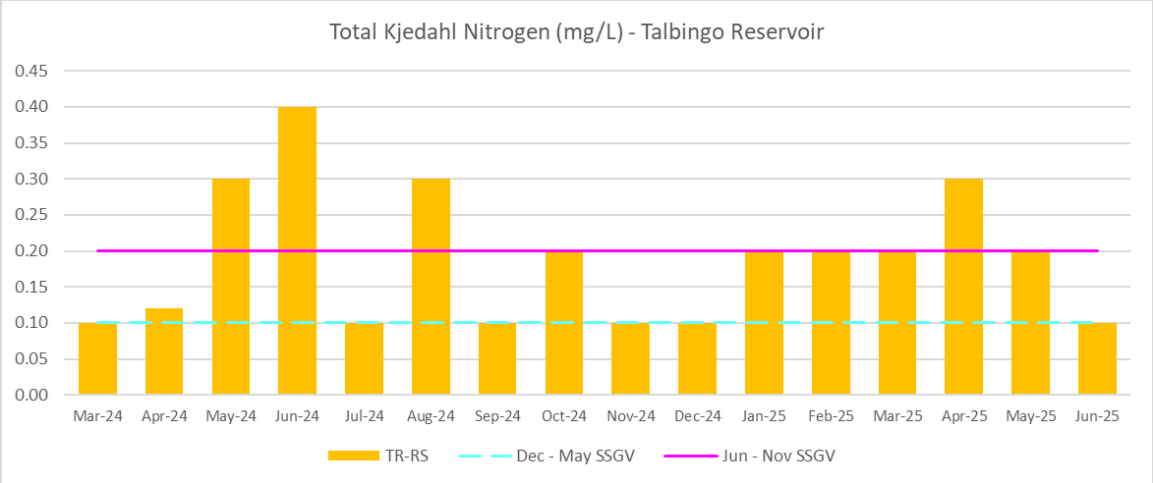

FIGURE 44: TKN FOR TALBINGO RESERVOIR

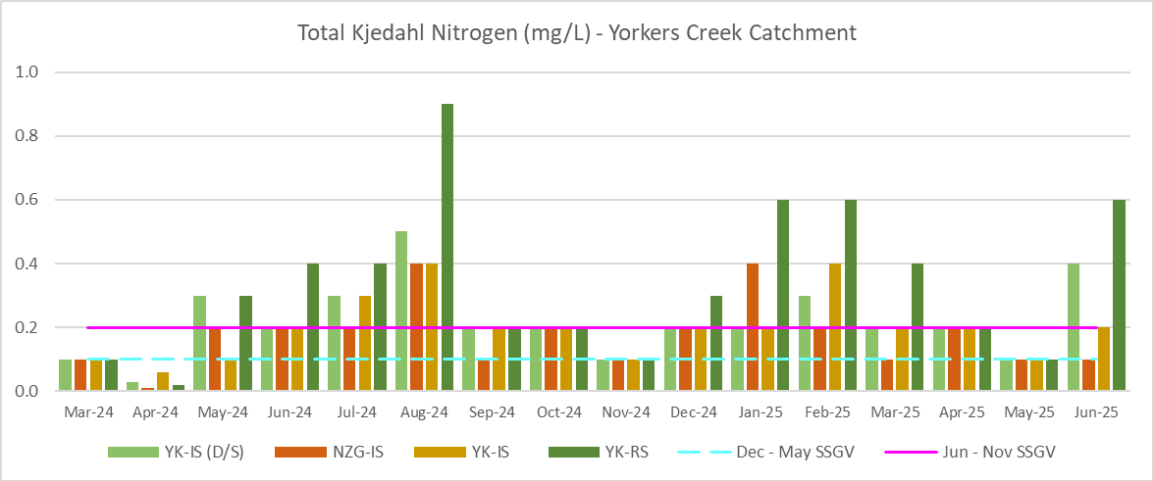

FIGURE 45: TKN FOR YORKERS CREEK CATCHMENT

5.1.1.15 Total Nitrogen

TN (mg/L) exceeded the SSGV (0.2 mg/L) at all sites within the Yarrangobilly River catchment, except for LHG-IS, which was on-par with the SSGV. A notable exceedance was recorded at YR2-IS in this catchment, refer to Figure 46. Talbingo Reservoir was below the LOR, refer to Figure 47. Within Yorkers Creek catchment, YK-RS and YK-IS(DS) both exceeded the SSGV, while YK-IS was on-par with the SSGV, refer to Figure 48.

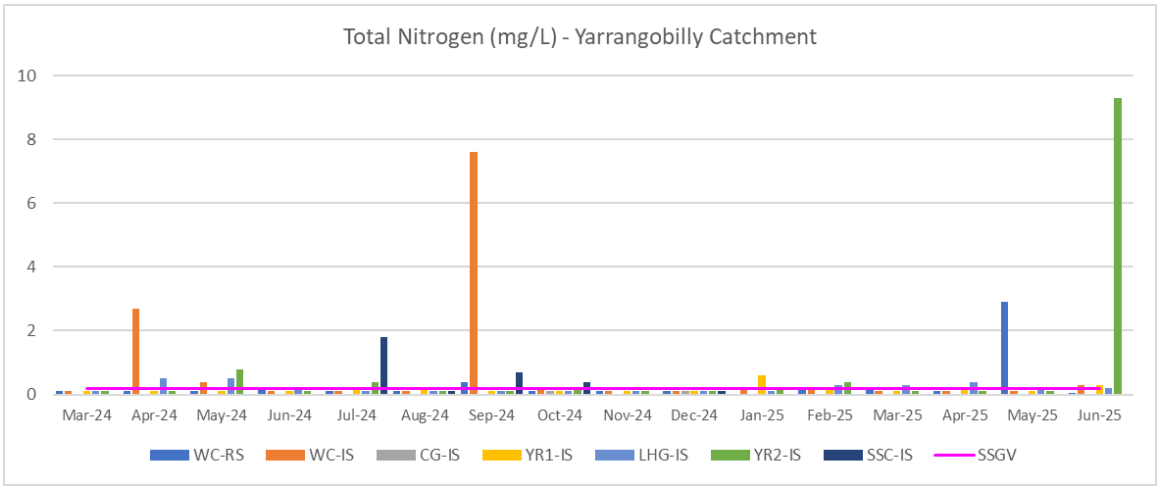

FIGURE 46: TN FOR YARRANGOBILLY RIVER CATCHMENT

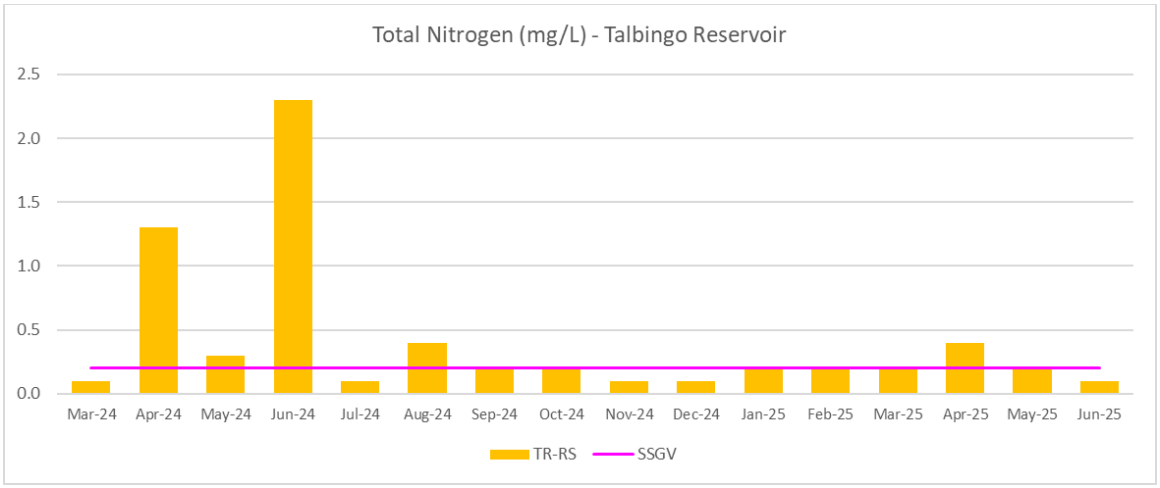

FIGURE 47: TN FOR TALBINGO RESERVOIR

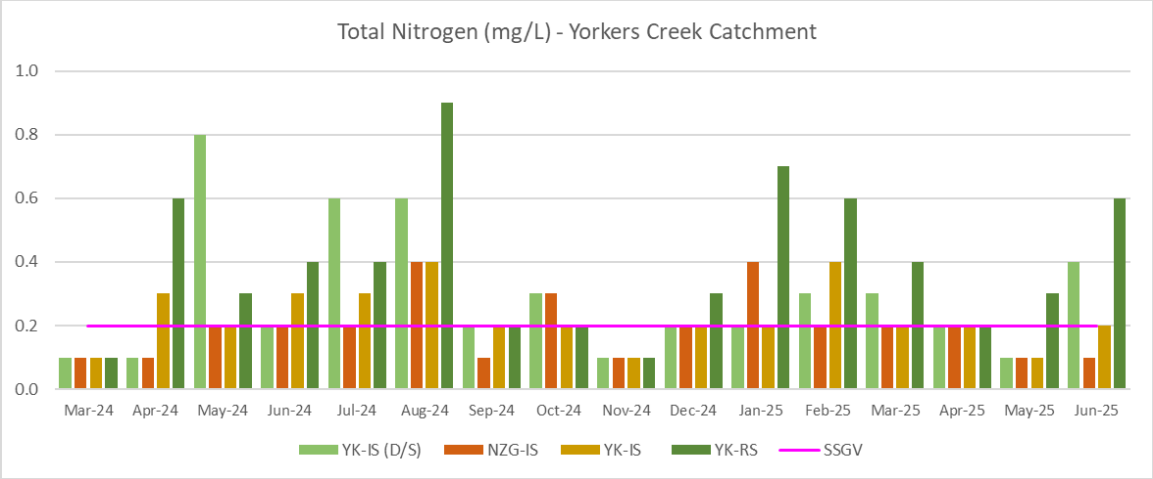

FIGURE 48: TN FOR YORKERS CREEK CATCHMENT

5.1.1.16 Total Phosphorus

TP (mg/L) values exceeded the June to November SSGV (0.02mg/L) at all three reference sites (being WC-RS, TR-RS and YK-RS), together with YK-IS(D/S) and YK-IS. Three impact sites in Yarrangobilly River catchment (WC-IS, YR1-IS and LHG-IS) and one impact site within Yorkers Creek catchment (NZG-IS) were on-par with the SSGV, refer to Figure 49 to Figure 51.

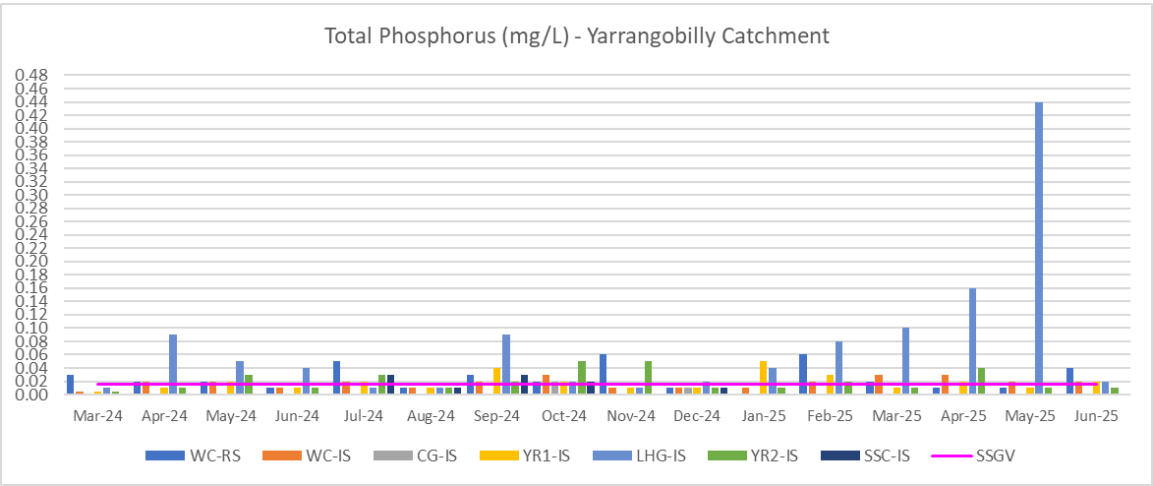

FIGURE 49: TP FOR YARRANGOBILLY RIVER CATCHMENT

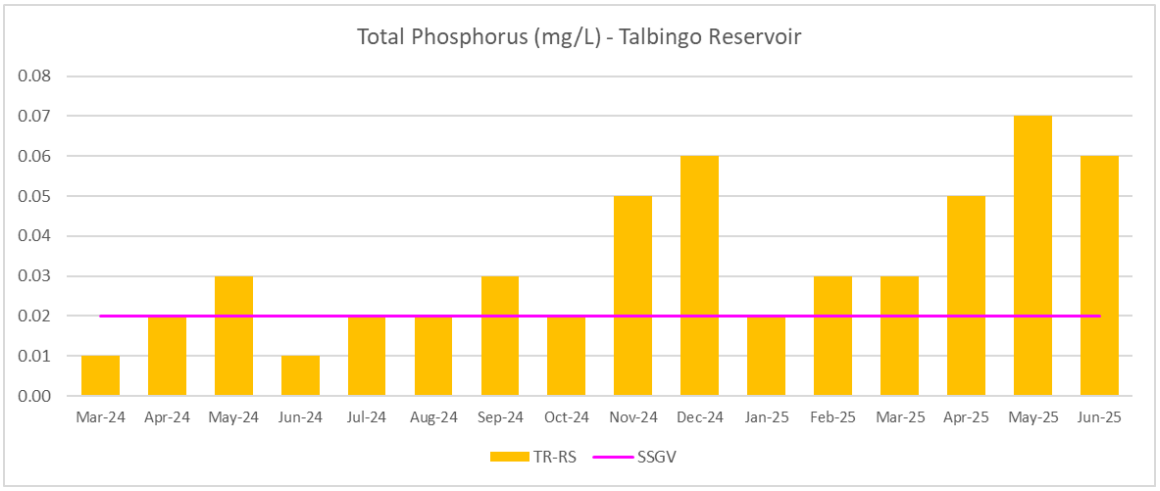

FIGURE 50: TP FOR TALBINGO RESERVOIR

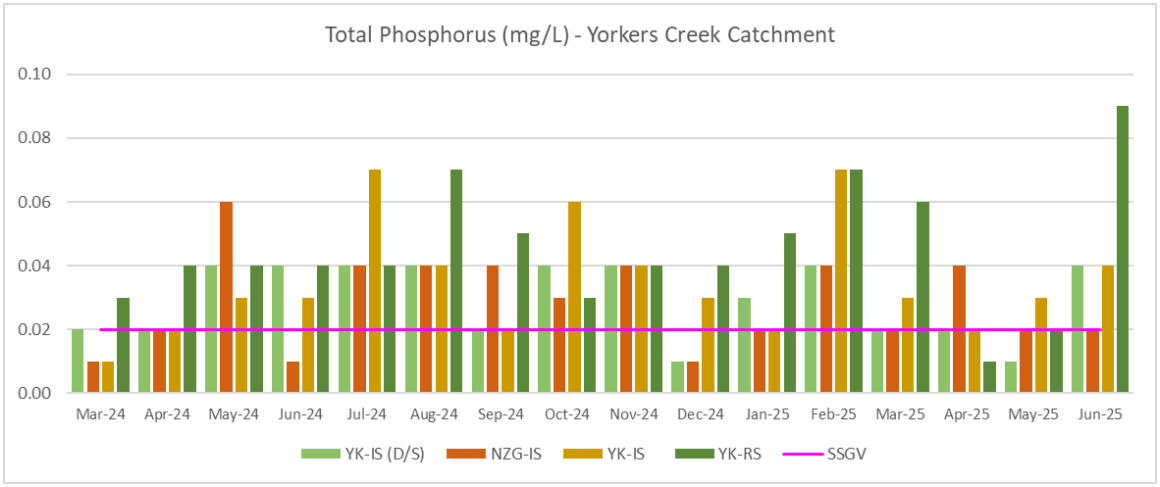

FIGURE 51: TP FOR YORKERS CREEK CATCHMENT

5.1.1.17 Reactive Phosphorus

All sites measured below the LOR for RP (mg/L), refer to Figure 52 to Figure 54.

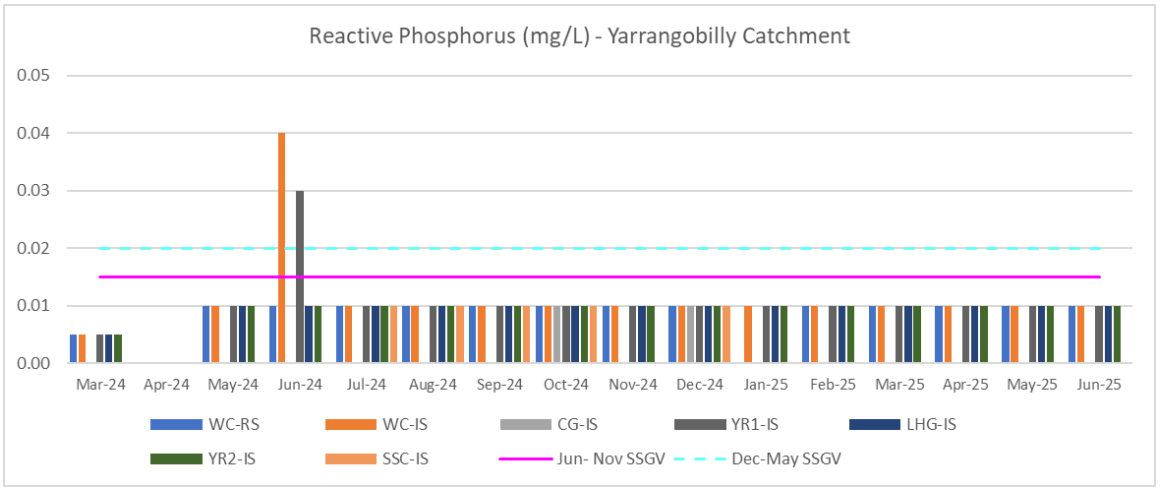

FIGURE 52: RP FOR YARRANGOBILLY RIVER CATCHMENT

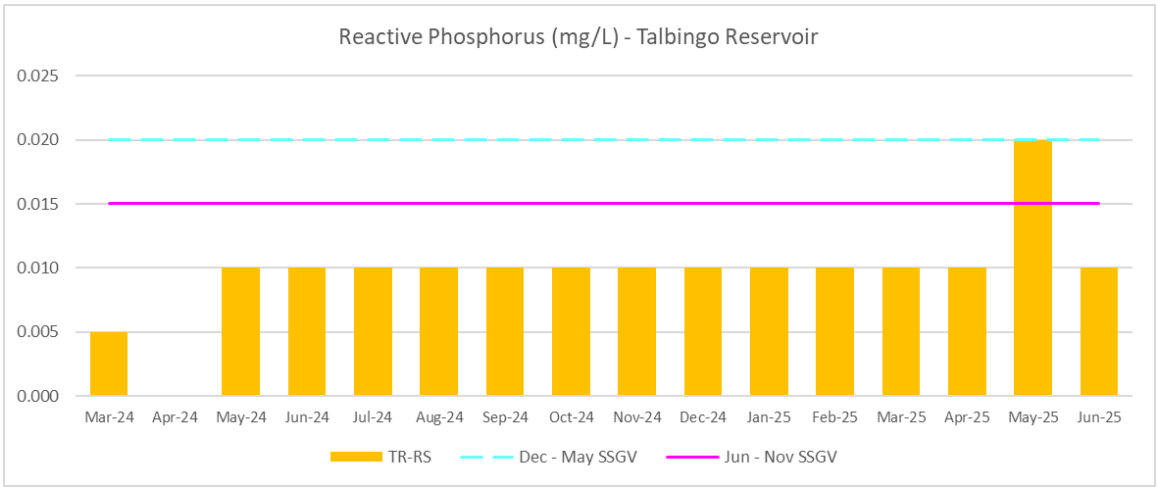

Figure 53: RP for Talbingo Reservoir

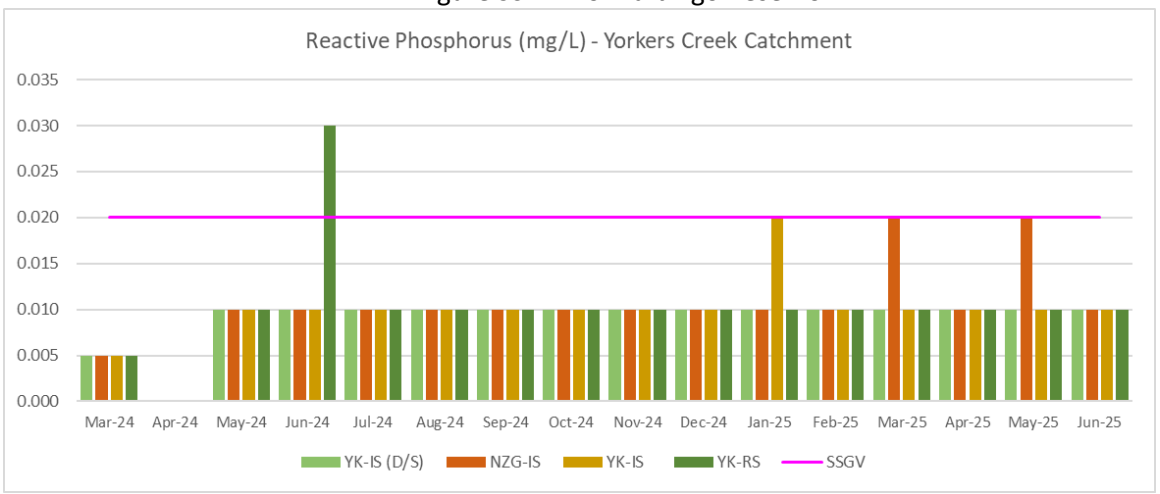

FIGURE 54: RP FOR YORKERS CREEK CATCHMENT

5.1.2 Dissolved Metals

Dissolved metals exceeding the relevant SSGV are listed in Table 4.

Table 4: Results for Dissolved Metals

DISSOLVED METALS RESULTS				
Analyte	**Site**	**Result (mg/L)**	**SSGV (mg/L)**	**Comment**
Al	YR1-IS	0.14	0.04	Two impact sites within Yarrangobilly River catchment (YR1-IS and YR2-IS) exceeded the June to November SSGV for Al (mg/L). Similarly, Talbingo Reservoir exceeded the respective June to November SSGV for Al (mg/L). All sites in Yorkers Creek catchment were within the SSGV.
	YR2-IS	0.26		
	TR-RS	0.02	0.015	
Cu	YR2-IS	0.002	0.0002	Cu (mg/L) values at YR2-IS exceeded the June to November SSGV. All other sites were below the LOR.
Fe	YR1-IS	0.12	0.02	The respective June to November SSGVs in Yarrangobilly River catchment and Yorkers Creek catchment were exceeded for Fe (mg/L) as listed. NZG-IS was below the SSGV and all other sites were below the LOR.
	LHG-IS	0.75		
	YR2-IS	0.18		
	YK-RS	0.31	0.23	
	YK-IS(D/S)	0.3		
	YK-IS	0.25		
Mn	WC-RS	0.005	0.002	All sites across all three catchments exceeded the June to November SSGV for Mn (mg/L). The greatest exceedance was seen at LHG-IS.
	WC-IS	0.003		
	YR1-IS	0.003		
	LHG-IS	0.261		
	YR2-IS	0.004		
	TR-RS	0.008		
	YK-RS	0.016	0.003	
	YK-IS (D/S)	0.010		
	NZG-IS	0.006		
	YK-IS	0.010		

5.1.3 Total Metals

Total metals exceeding the DGV are listed in Table 5.

Table 5: Results for Total Metals

TOTAL METALS RESULTS				
Analyte	**Site**	**Result (mg/L)**	**DGV (mg/L)**	**Comment**
Al	WC-RS	0.08	0.027	All sites across all three catchments exceeded the DGV for Al (mg/L), except for Talbingo Reservoir which was on-par with the DGV.
	WC-IS	0.12		
	YR1-IS	0.71		
	LHG-IS	0.22		
	YR2-IS	0.67		
	YK-RS	1.07		
	YK-IS (D/S)	0.24		
	NZG-IS	0.14		
	YK-IS	0.28		
Cr	YR1-IS	0.002	0.00001	Two impact sites in Yarrangobilly River catchment (being YR1-IS and YR2-IS) in addition to the Yorkers Creek Reference Site (YK-RS) exceeded the DGV for Cr (mg/L). All other sites were below the LOR.
	YR2-IS	0.002		
	YK-RS	0.002		
Zn	YR1-IS	0.01	0.0024	All sites were below the LOR, except for YR1-IS which exceeded the DGV for Zn (mg/L).
Fe	YR1-IS	0.56	0.3	Within the Yarrangobilly River catchment, three impact sites (YR1-IS, LHG-IS and YR2-IS) exceeded the DGV (mg/L). Two of four sites within Yorkers Creek catchment also exceeded the DGV.
	LHG-IS	1.32		
	YR2-IS	0.48		
	YK-RS	0.88		
	YK-IS(D/S)	0.46		
	YK-IS	0.38		

6 DISCUSSION

Below is a summary of key observations and discussion points from the April monitoring results:

- **Potential impacts to SWQ:**
  - » Seasonal winter cooling was evident across all catchments, with lower temperatures influencing dissolved oxygen levels, flow conditions and overall water quality dynamics.
  - » Impact sites within the Yarrangobilly River catchment continue to be influenced by existing Snowy 2.0-related activities occurring upstream of the project area.
  - » TR-RS remains located within a public recreational area at O'Hares Campground, where boating and visitor activity may contribute to background disturbance.
  - » Reference and impact sites across all catchments remain adjacent to publicly accessible tracks, maintenance trails and natural fauna movement areas, all of which can contribute to bank disturbance, erosion and sedimentation.
  - » Evidence of fauna activity, vegetative debris and organic matter continues to influence several water quality parameters, particularly pH, turbidity and nutrient species.
  - » Naturally eroded banks, shallow water levels and exposed substrates at multiple sites continue to increase background variability in suspended solids and nutrient concentrations.
- **Sampling and analysis:**
  - » A considerable number of analytes were again recorded below (<) the laboratory LOR.
  - » Several parameters could not be conclusively assessed where the SSGV/DGV was lower than the LOR.
  - » As observed in May, shallow water conditions at some locations increased the potential for incidental disturbance during sampling.
  - » EC and redox were not recorded in June, and therefore trend assessment for these parameters is not possible.
- **SWQ parameters:**
  - » pH values exceeded the June–November SSGV across most sites in all catchments, consistent with the natural alkaline tendencies documented in previous months.
  - » DO remained below the seasonal SSGV at nearly all sites, reflecting typical winter conditions characterised by reduced mixing and lower biological activity.
  - » Turbidity and TSS exhibited mixed exceedances across the catchments, broadly consistent with natural sediment behaviour rather than construction-related impact.
  - » TDS remained elevated at all sites, with LHG-IS continuing to record the highest values due to known hydrogeological conditions.
  - » Nitrogen species (NOx, ammonia, TKN, TN) recorded several exceedances, although spatial patterns were consistent with prior months and did not indicate emerging trends.
  - » TP exceeded the SSGV at all reference sites and several impact sites, while RP remained below the LOR across all locations.

- **Metals:**
  - » Dissolved aluminium, iron and manganese exceeded the respective SSGVs at several sites, consistent with natural catchment geochemistry previously observed.
  - » Total aluminium, chromium, zinc and iron exceeded DGVs at a range of locations across all catchments, with the highest exceedances again occurring at LHG-IS.
  - » The distribution of dissolved and total metal exceedances was consistent with historical patterns and did not suggest construction-related influence.

7 CONCLUSION

Monthly water quality monitoring was undertaken on 9 June 2025 across the Yarrangobilly River, Talbingo Reservoir and Yorkers Creek catchments in accordance with EPL 21753. Monitoring was completed using the revised methodology outlined in Section 3 at the 12 locations listed in Table 1.

The results from the construction SWQ monitoring program were reported for the three key catchments: Yarrangobilly River, Talbingo Reservoir and Yorkers Creek. Each catchment had a reference site, with impact sites also monitored for comparison. Key parameters such as temperature, pH, DO, SPC, EC, turbidity, TSS, redox, ammonia, nitrogen oxides, cyanide, TKN, CaCO3, TN, TP, RP and metals (both dissolved and total) were analysed.

In June 2025, temperatures generally decreased across Yarrangobilly River and Talbingo Reservoir catchments in line with seasonal cooling, while Yorkers Creek recorded only marginal increases. pH values exceeded the June–November SSGV at most sites across all catchments, consistent with previous monitoring rounds. DO results were below the seasonal SSGV at nearly all sites, reflecting typical early-winter conditions.

SPC remained within the June–November SSGV at most sites except LHG-IS, which continued to exhibit naturally elevated values. EC and redox were not recorded in June. Turbidity and TSS showed mixed exceedances across catchments, generally consistent with background variability observed in earlier sampling periods.

TDS remained above the SSGV across all sites, with the highest results again recorded at LHG-IS. Nitrogen species (NOx, ammonia, TKN, TN) produced several exceedances, although patterns were comparable with previous months. TP exceeded the SSGV at all reference sites and several impact sites, while RP remained below the LOR across all sites.

Dissolved metals recorded exceedances for aluminium, iron and manganese at several locations, consistent with natural catchment geochemistry. Total metals showed exceedances of aluminium, chromium, zinc and iron at several sites across all three catchments, with the highest values recorded at LHG-IS, similar to previous monitoring periods.

REFERENCES

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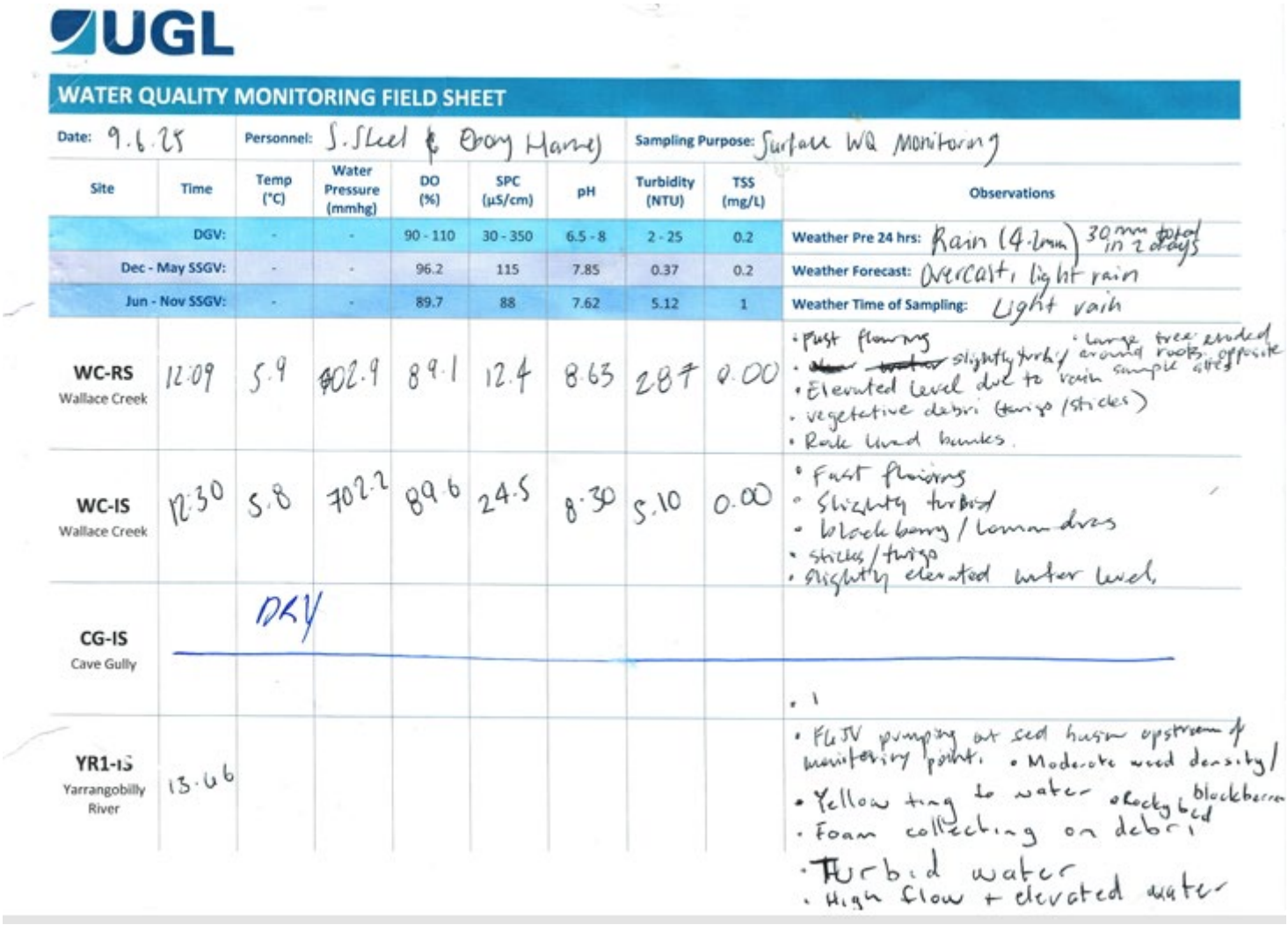
UGL. (2025). February 2025. *Water Quality Monitoring Field Data Sheet*. NSW, Australia: UGL Limited.

Appendix A: Field Sheet (UGL, 2025)



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WATER QUALITY MONITORING FIELD SHEET

Date: 9.6.25 Personnel: S. Steel & Bray Haines Sampling Purpose: Surface WQ Monitoring

Site	Time	Temp (°C)	Water Pressure (mmhg)	DO (%)	SPC (µS/cm)	pH	Turbidity (NTU)	TSS (mg/L)	Observations
DGV:		-	-	90 - 110	30 - 350	6.5 - 8	2 - 25	0.2	Weather Pre 24 hrs: Rain (4.1mm) 30mm in 2 days total
Dec - May SSGV:		-	-	96.2	115	7.85	0.37	0.2	Weather Forecast: Overcast, light rain
Jun - Nov SSGV:		-	-	89.7	88	7.62	5.12	1	Weather Time of Sampling: Light rain
WC-RS Wallace Creek	12:09	5.9	702.9	89.1	12.4	8.63	2.87	0.00	• Fast flowing • ~~clear~~ slightly turbid • Large tree eroded around roots opposite side sample • Elevated level due to rain • vegetative debri (twigs / sticks) • Rock lined banks.
WC-IS Wallace Creek	12:30	5.8	702.2	89.6	24.5	8.30	5.10	0.00	• Fast flowing • Slightly turbid • blackberry / lomandras • sticks / twigs • slightly elevated water level.
CG-IS Cave Gully		DRY							
YR1-IS Yarrangobilly River	13:06								• FLJV pumping at seed house upstream of monitoring point. • Moderate weed density / • Yellow tint to water • Rocky bed blackberry • Foam collecting on debri • Turbid water • High flow + elevated water

UGL

UGL

WATER QUALITY MONITORING FIELD SHEET

Date: 9.6.25 | Personnel: S. Steed / E. Hawkes | Sampling Purpose: Surface WQ Monitoring

Site	Time	Temp (°C)	Water Pressure (mmhg)	DO (%)	SPC (µS/cm)	pH	Turbidity (NTU)	TSS (mg/L)	Observations
DGV:	-	-	90 - 110	30 - 350	6.5 - 8	2 - 25	0.2		Weather Pre 24 hrs: Rain (4.2mm) 33.8mm total in 2 days.
Dec - May SSGV:	-	-	96.2	115	7.85	0.37	0.2		Weather Forecast: Overcast, light rain
Jun - Nov SSGV:	-	-	89.7	88	7.62	5.12	1		Weather Time of Sampling: light rain
LHG-IS Lick Hole Gully	12:50	9.0	701.7	68.5	136.5	7.25	1.32	0.00	• Elevated water level (Flowing) • clear water • silt deposition visible • Orange algae growth • Good coverage of reeds / lomandra
YR2-IS Yarrangobilly River	11:38	5.9	704.6	89.8	18.2	8.66	11.92	0.00	• Turbidity from previous rain • Fast flowing & high water level. • Bubbles on surface • Lomandra & callistemons growing on banks
SSC-IS Sheep Station Creek	DRY								
TR-RS Talbingo Reservoir	1.07	10.5	712.9	86.4	6.1	8.34	3.15	0.00	• Clear • rocky/sandy bed • riparian, trees, grass • weed density low • low level • adjacent to public road + camp ground • Talbingo resovior ancillary • aquatic veg min • organic detritus

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WATER QUALITY MONITORING FIELD SHEET

Date: 11/06/25 Personnel: Ebony & Brianna Sampling Purpose: monthly WQ sampling

Site	Time	Temp (°C)	Water Pressure (mmHg)	DO (%)	SPC (µS/cm)	pH	Turbidity (NTU)	TSS (mg/L)	Observations
DGV:		-	-	90 - 110	30 - 350	6.5 - 8	2 - 25	0.2	Weather Pre 24 hrs: 0.00
Dec - May SSGV:		-	-	96.2	115	7.85	0.37	0.2	Weather Forecast: Sunny, partly cloudy & slight chance of shower.
Jun - Nov SSGV:		-	-	89.7	88	7.62	5.12	1	Weather Time of Sampling: overcast
YK-RS Yorkers Creek	10:30am	5.4	662.6	83	7.8	8.24	14.60	0.00	Horse + rabbit scat. Water is slow flowing with lots of OM + debris & weed from layer. Lots of organic detritis. Undercut bank vegetation. Low water level. Yellow tinge to water. Slight odour. Overhanging veg. Muddy bed. Adjacent to public road. Riparian consists of small shrubs, trees & grassy ground layer. Location: Opposite pond
YK-IS (D/S) Yorkers Creek	11:43 am	5.6	664.3	83.1	8.1	8.07	18.14	0.00	Rabbit/horse scat. Water is moderately flowing with mod white foam. Muddy bank/rocky bank. Bit of erosion here, turbid/murky/silt. Snakes. Riparian vegetation. Overhanging veg. Lots of OM present/settled on bank. Riparian mainly shrubs & shrubs. Some overhanging trees & grassy/muddy ground layer. Low weed density. Water has yellow tinge.
NZG-IS New Zealand Gully 10:00am	10:00 am	5.5	668.3	83.5		8.47	4.66	0.00	• Lots of horse tracks • Low water levels - difficult to get aquatic sample • Slow flow - clear/yellow/murky • Overhanging veg with lots of organic detritis → adjacent to public road → veg in riparian zone with moderate weed density (blackberry) → shrubs/mature shrubs → rocky/sandy waterbed → very muddy → no invertebrates → aquatic veg
YK-IS Yorkers Creek dirt track past UGL compound	11:50 am	5.9	666.1	84.9	9.9	8.07	13.6	0.00	Horse + kangaroo scats/tracks. Overhanging trees + veg. Small shrubs & small eucalypt trees. Organic detritus. Undercut bank. Sandy/mud. Aquatic veg & yellow tinge water. Moderate flow, low volume. Adjacent to public road (dirt). Weed density low. Lots of long grass covering ground. B.

Appendix B: COA (ALS, 2025a), QA/QC Assessment (ALS, 2025b) and QCR (ALS, 2025c)

CERTIFICATE OF ANALYSIS

Work Order	: ES2517894	Page	: 1 of 4
Client	: UGL LIMITED	Laboratory	: Environmental Division Sydney
Contact	: CAMILLE PALMER	Contact	: Customer Services ES
Address	: Level 4, 40 Miller Street North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: Monthly WQ Sampling June	Date Samples Received	: 11-Jun-2025 13:30
Order number	: 4501837828	Date Analysis Commenced	: 16-Jun-2025
C-O-C number	: 83871	Issue Date	: 23-Jun-2025 14:07
Sampler	: EBONY HAMES		
Site	: Lobs hole		
Quote number	: ES24UGLLIM0001_V4		
No. of samples received	: 5		
No. of samples analysed	: 5		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EG020: It is recognised that total concentration is less than dissolved for some metal analytes. However, the difference is within experimental variation of the methods.
- TDS by method EA-015 may bias high for various samples due to the presence of fine particulate matter, which may pass through the prescribed GF/C paper.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.

Page	: 3 of 4
Work Order	: ES2517894
Client	: UGL LIMITED
Project	: Monthly WQ Sampling June

Analytical Results

Sub-Matrix: SURFACE WATER
(Matrix: WATER)

Compound	CAS Number	LOR	Unit	Sample ID	YR2-IS	WC-RS	WC-IS	LHG-IS	YR1-IS
				Sampling date / time	09-Jun-2025 11:50	09-Jun-2025 11:55	09-Jun-2025 12:25	09-Jun-2025 12:48	09-Jun-2025 13:17
					ES2517894-001	ES2517894-002	ES2517894-003	ES2517894-004	ES2517894-005
					Result	Result	Result	Result	Result
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		62	84	89	452	83
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	1	mg/L		6	3	<1	9	7
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L		36	55	51	333	36
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		0.26	0.02	0.02	<0.01	0.14
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	<0.001	0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L		0.002	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L		<0.005	<0.005	<0.005	0.006	0.008
Manganese	7439-96-5	0.001	mg/L		0.004	0.005	0.003	0.261	0.003
Silver	7440-22-4	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Iron	7439-89-6	0.05	mg/L		0.18	<0.05	<0.05	0.75	0.12
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		0.67	0.08	0.12	0.22	0.71
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	<0.001	0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L		0.002	<0.001	<0.001	<0.001	0.002
Copper	7440-50-8	0.001	mg/L		0.001	<0.001	<0.001	<0.001	0.001
Nickel	7440-02-0	0.001	mg/L		0.002	<0.001	<0.001	<0.001	0.002
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L		<0.005	<0.005	<0.005	<0.005	0.010
Manganese	7439-96-5	0.001	mg/L		0.011	0.008	0.016	0.281	0.014

Analytical Results

Sub-Matrix: SURFACE WATER
(Matrix: WATER)

Compound	CAS Number	LOR	Unit	Sample ID	YR2-IS	WC-RS	WC-IS	LHG-IS	YR1-IS
				Sampling date / time	09-Jun-2025 11:50	09-Jun-2025 11:55	09-Jun-2025 12:25	09-Jun-2025 12:48	09-Jun-2025 13:17
					ES2517894-001	ES2517894-002	ES2517894-003	ES2517894-004	ES2517894-005
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Silver	7440-22-4	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Iron	7439-89-6	0.05	mg/L		0.48	0.09	0.19	1.32	0.56
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	0.002	mg/L		<0.002	<0.002	<0.002	<0.002	<0.002
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	<0.01	0.02	0.03	0.02
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		8.13	0.42	0.03	0.01	0.02
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		8.13	0.42	0.03	0.01	0.02
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		1.2	0.2	0.3	0.2	0.3
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		9.3	0.6	0.3	0.2	0.3
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		<0.01	0.04	0.02	0.02	0.02
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01

CERTIFICATE OF ANALYSIS

Work Order	: **ES2517892**	Page	: 1 of 6
Client	: **UGL LIMITED**	Laboratory	: Environmental Division Sydney
Contact	: CAMILLE PALMER	Contact	: Customer Services ES
Address	: Level 4, 40 Miller Street North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: Monthly WQ Sampling June	Date Samples Received	: 11-Jun-2025 13:30
Order number	: 4501837828	Date Analysis Commenced	: 18-Jun-2025
C-O-C number	: 84006	Issue Date	: 24-Jun-2025 14:14
Sampler	: EBONY HAMES		
Site	: TR-RS		
Quote number	: ES24UGLLIM0001_V4		
No. of samples received	: 6		
No. of samples analysed	: 6		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW

General Comments

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When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

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LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EG020: It is recognised that total concentration is less than dissolved for some metal analytes. However, the difference is within experimental variation of the methods.
- EG020: Filtered Manganese results for samples ES2517892-#001 and #002 have been confirmed by reanalysis.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)

Compound	CAS Number	LOR	Unit	Sample ID	TR-RS	TR-RS Duplicate	NZG-IS	YK-IS (DS)	YK-IS
				Sampling date / time	11-Jun-2025 13:43	11-Jun-2025 13:45	11-Jun-2025 13:48	11-Jun-2025 13:55	11-Jun-2025 13:59
					ES2517892-001	ES2517892-002	ES2517892-003	ES2517892-004	ES2517892-005
					Result	Result	Result	Result	Result
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		56	45	85	89	90
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	1	mg/L		<1	<1	1	5	5
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L		5	5	23	12	12
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		0.02	0.01	0.06	0.18	0.14
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L		<0.005	<0.005	<0.005	<0.005	<0.005
Manganese	7439-96-5	0.001	mg/L		0.008	0.015	0.006	0.010	0.010
Silver	7440-22-4	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Iron	7439-89-6	0.05	mg/L		<0.05	<0.05	0.14	0.30	0.25
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		0.02	0.03	0.14	0.24	0.28
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L		<0.001	<0.001	0.001	0.001	0.001
Copper	7440-50-8	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L		<0.005	<0.005	<0.005	<0.005	<0.005
Manganese	7439-96-5	0.001	mg/L		0.046	0.046	0.005	0.015	0.011

Page	: 4 of 6
Work Order	: ES2517892
Client	: UGL LIMITED
Project	: Monthly WQ Sampling June

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	TR-RS	TR-RS Duplicate	NZG-IS	YK-IS (DS)	YK-IS
				Sampling date / time	11-Jun-2025 13:43	11-Jun-2025 13:45	11-Jun-2025 13:48	11-Jun-2025 13:55	11-Jun-2025 13:59
Compound	CAS Number	LOR	Unit		ES2517892-001	ES2517892-002	ES2517892-003	ES2517892-004	ES2517892-005
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Silver	7440-22-4	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Iron	7439-89-6	0.05	mg/L		<0.05	**0.05**	**0.18**	**0.46**	**0.38**
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	0.002	mg/L		<0.002	<0.002	<0.002	<0.002	<0.002
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.04**	**0.02**	**0.01**	**0.01**	**0.02**
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.04**	**0.06**	<0.01	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.04**	**0.06**	<0.01	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**0.1**	**0.1**	**0.1**	**0.4**	**0.2**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		**0.1**	**0.2**	**0.1**	**0.4**	**0.2**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.06**	**0.02**	**0.02**	**0.04**	**0.04**
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	YK-RS	-----	-----	-----	-----
				Sampling date / time	11-Jun-2025 14:01	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2517892-006	--------	--------	--------	--------
					Result	----	----	----	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		**90**	----	----	----	----
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	1	mg/L		**13**	----	----	----	----
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L		**9**	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.19**	----	----	----	----
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		<0.001	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		<0.005	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.016**	----	----	----	----
Silver	7440-22-4	0.001	mg/L		<0.001	----	----	----	----
Iron	7439-89-6	0.05	mg/L		**0.31**	----	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**1.07**	----	----	----	----
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		**0.002**	----	----	----	----
Copper	7440-50-8	0.001	mg/L		<0.001	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		<0.005	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.023**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	YK-RS	----	----	----	----
				Sampling date / time	11-Jun-2025 14:01	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2517892-006	--------	--------	--------	--------
					Result	----	----	----	----
EG020T: Total Metals by ICP-MS - Continued									
Silver	7440-22-4	0.001	mg/L		<0.001	----	----	----	----
Iron	7439-89-6	0.05	mg/L		**0.88**	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	0.002	mg/L		<0.002	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		**0.02**	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.02**	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**0.6**	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		**0.6**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.09**	----	----	----	----
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	----	----	----	----

Appendix C: June 2025 SWQ Monitoring Results

Parameter		Sheen/ oil/ grease	Temp. (°C)	Dissolved Oxygen (DO %)	DO (ppm)	Specific EC (SPC uS/cm)	EC (uS/cm)	pH	Redox (mV)	Turbidity (NTU)	Dissolved Al (mg/L)	Dissolved As (mg/L)	Dissolved Cd (mg/L)	Dissolved Cr (mg/L)	Dissolved Cu (mg/L)	Cyanide (mg/L)	Dissolved Fe (mg/L)	Dissolved Pb (mg/L)	Dissolved Mn (mg/L)	Dissolved Hg (mg/L)	Dissolved Ni (mg/L)
YARRANGOBILLY CATCHMENT																					
Default Guideline Value (DGV)		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
Limit of Reporting (LOR)				-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May Site Specific Guideline Value (SSGV)				96.2	9.08	115	93.2	7.85	79.1	0.37	0.03	0.0003	0.00002	0.00001	0.0002	0.002	0.03	0.001	0.002	0.00003	0.001
June - Nov SSGV				89.7	10.28	88	60.85	7.62	98.4	5.12	0.04	0.0003	0.00002	0.00001	0.0002	0.002	0.02	0.001	0.002	0.00003	0.001
WC-RS	Mar-24	No	10.7	87.5	9.72	143.6	104.3	7.80	25.9	*0.1*	0.02	*0.00015*	*0.00001*	*0.00001*	0.002	*0.001*	*0.03*	0.002	0.003	*0.00002*	*0.001*
	Apr-24	No	10.7	94.8	-	145.6	-	8.44	-	1.05	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.11	*0.001*	0.007	*0.0001*	*0.001*
	May-24	No	2.1	93.8	-	155	-	8.05	-	0.39	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	*0.05*	*0.001*	0.009	*0.0001*	*0.001*
	Jun-24	No	4.7	92.9	-	126.8	-	7.51	-	0.56	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.005	*0.0001*	*0.001*
	Jul-24	No	6.4	91.9	-	46.6	-	6.96	-	9.24	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Aug-24	No	10.4	80.6	-	47.1	-	7.80	-	1.6	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Sep-24	No	11.7	92.0	-	43	-	7.86	-	0.5	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Oct-24	No	9.3	92.7	-	52	-	7.55	-	1.3	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Nov-24	No	12.2	90.6	9.7	82	82	7.63	235	0.6	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.004	*0.0001*	*0.001*
	Dec-24	Yes	12.7	90.0	10.0	41.8	71.0	7.75	250	1.4	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
*sample not an	Jan-25	No	26.6	83.2	-	27.3	-	8.13	-	0.65	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	No	16.3	86.0	9.2	26.3	123	7.76	158	4.01	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.08	*0.001*	0.008	*0.0001*	*0.001*
	Mar-25	Yes	14.7	92.7	9.8	34.6	145	8.32	162	1.16	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.008	*0.0001*	*0.001*
	Apr-25	No	17.6	91.8	10.5	34	155	8.19	202	0.9	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.007	*0.0001*	*0.001*
	May-25	Yes	9.9	96.0	-	33.7	24	8.59	110.8	1.04	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.007	*0.0001*	*0.001*
	Jun-25	No	5.9	89.1	-	12.4	-	8.63	-	2.87	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.005	*0.0001*	*0.001*
WC-IS	Mar-24	No	10.7	87.1	9.68	145.9	105.9	7.83	41.9	*0.1*	0.03	*0.00015*	*0.00001*	*0.00001*	0.002	*0.001*	*0.03*	0.002	0.003	*0.00002*	*0.0005*
	Apr-24	No	10.7	95.0	-	145.2	-	8.45	-	0.9	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.07	*0.001*	0.006	*0.0001*	*0.001*
	May-24	No	2.1	94.1	-	154.9	-	7.86	-	0.3	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	*0.05*	*0.001*	0.007	*0.0001*	*0.001*
	Jun-24	No	4.8	93.3	-	126.7	-	7.72	-	0.35	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.004	*0.0001*	*0.001*
	Jul-24	No	6.6	91.2	-	46.6	-	6.96	-	7.65	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Aug-24	No	10.5	91.5	-	45.6	-	7.83	-	5.85	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Sep-24	No	11.7	92.9	-	54.4	-	7.83	-	5.5	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.005	*0.0001*	*0.001*
	Oct-24	No	9.5	93.3	-	52.1	-	7.66	-	1.4	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Nov-24	No	12.2	90.4	9.9	82	82	7.63	245	0.3	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Dec-24	No	12.7	91.1	10.1	41.3	72	7.48	259	1.4	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Jan-25	No	17.8	85.7	9.1	24.5	108	7.80	232	2.75	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.007	*0.0001*	*0.001*
	Feb-25	No	16.3	85.2	9.4	26	121	7.80	164	4.08	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.08	*0.001*	0.007	*0.0001*	*0.001*
	Mar-25	No	16.1	95.8	9.7	31.8	146	8.33	170	1.13	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.006	*0.0001*	*0.001*
	Apr-25	No	17.3	92.8	10.6	33.5	155	8.66	197	1.02	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.005	*0.0001*	*0.001*
	May-25	No	9.4	96.1	-	34.3	24.1	8.71	110.9	1.4	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.006	*0.0001*	*0.001*
	Jun-25	No	5.8	89.6	-	24.5	-	8.30	-	5.1	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.003	*0.0001*	*0.001*
CG-IS	Mar-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jul-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aug-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sep-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Oct-24	No	12.7	93.2	-	382.8	-	8.17	-	1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Nov-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	No	14	88.5	9.7	29	480	8.12	255	2.84	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Jan-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Parameter		TN (mg/L)	TP (mg/L)	Dissolved Ag (mg/L)	Dissolved Zn (mg/L)	Ammonia (mg/L)	Nitrogen Oxides (mg/L)	Reactive Phosphorous (mg/L)	Total Hardness (mg/L) (CaCO3)	Total Kjedahl Nitrogen (mg/L) (TKN)	TDS (mg/L)	TSS (mg/L)	Total Al (mg/L)	Total As (mg/L)	Total Cd (mg/L)	Total Cr (mg/L)	Total Cu (mg/L)	Total Pb (mg/L)	Total Mn (mg/L)	Total Ni (mg/L)	Total Ag (mg/L)	Total Zn (mg/L)	Total Fe (mg/L)	Total Hg (mg/L)
YARRANGOBILLY CATCHMENT																								
Default Guideline Value (DGV)		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
Limit of Reporting (LOR)		0.1	0.01	0.001	0.005	0.010	0.010	0.010	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May Site Specific Guideline V		0.2	0.02	0.00002	0.002	0.013	0.015	0.020	47	0.2	52	0.2												
June - Nov SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.015	30	0.2	39	1.0												
WC-RS	Mar-24	*0.1*	0.03	*0.00001*	*0.001*	0.050	0.05	*0.005*	42	*0.1*	70	*0.1*	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	-	70	*0.01*	-	*1*	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	May-24	*0.1*	0.02	*0.001*	*0.005*	0.020	*0.01*	*0.01*	77	*0.1*	102	5	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jun-24	0.2	*0.01*	*0.001*	*0.005*	*0.010*	0.23	*0.01*	53	*0.1*	81	2	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jul-24	*0.1*	0.05	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	17	*0.1*	38	8	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	*0.005*	0.09	*0.0001*
	Aug-24	*0.1*	*0.01*	*0.001*	0.032	*0.010*	*0.01*	*0.01*	28	*0.1*	51	4	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	*0.005*	0.07	*0.0001*
	Sep-24	0.4	0.03	*0.001*	*0.005*	0.040	0.22	*0.01*	31	0.2	65	3	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.005	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Oct-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	0.02	*0.01*	31	*0.1*	46	*1*	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.004	*0.001*	*0.001*	*0.005*	0.1	*0.0001*
	Nov-24	*0.1*	0.06	*0.001*	*0.005*	0.020	0.02	*0.01*	36	*0.1*	60	2	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.003	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Dec-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	31	*0.1*	51	2	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.08	*0.0001*
*sample not an	Jan-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	0.2	0.06	*0.001*	*0.005*	0.040	0.02	*0.01*	57	0.2	61	2	0.16	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.011	*0.001*	*0.001*	0.008	0.15	*0.0001*
	Mar-25	0.2	0.02	*0.001*	*0.005*	0.020	*0.01*	*0.01*	70	0.2	90	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Apr-25	*0.1*	*0.01*	*0.001*	*0.005*	0.020	*0.01*	*0.01*	80	*0.1*	88	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.009	*0.001*	*0.001*	*0.005*	0.06	*0.0001*
	May-25	2.9	*0.01*	*0.001*	*0.005*	0.020	2.5	*0.01*	77	0.4	104	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.009	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jun-25	0.6	0.04	*0.001*	*0.005*	*0.010*	0.42	*0.01*	55	0.2	84	3	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.008	*0.001*	*0.001*	*0.005*	0.09	*0.0001*
WC-IS	Mar-24	*0.1*	*0.005*	*0.00001*	*0.001*	0.050	0.05	*0.005*	42	*0.1*	88	*0.1*	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	2.7	0.02	*0.001*	*0.005*	*0.010*	2.42	-	67	2.42	-	11	0.15	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.022	0.004	*0.001*	*0.005*	0.22	*0.0001*
	May-24	0.4	0.02	*0.001*	*0.005*	*0.010*	0.31	*0.01*	75	*0.1*	106	5	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jun-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	0.02	0.04	53	*0.1*	81	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.005	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jul-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	17	*0.1*	42	5	0.11	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.011	*0.001*	*0.001*	*0.005*	0.1	*0.0001*
	Aug-24	*0.1*	*0.01*	*0.001*	0.006	*0.010*	0.03	*0.01*	28	*0.1*	45	4	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.06	*0.0001*
	Sep-24	7.6	0.02	*0.001*	0.017	*0.010*	7.21	*0.01*	33	0.4	113	3	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.002	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Oct-24	0.2	0.03	*0.001*	*0.005*	*0.010*	0.02	*0.01*	31	0.2	39	2	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.004	0.005	*0.001*	*0.005*	0.12	*0.0001*
	Nov-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	38	*0.1*	58	*1*	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.003	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Dec-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	33	*0.1*	51	2	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.09	*0.0001*
	Jan-25	0.2	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	51	0.2	82	*1*	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.015	*0.001*	*0.001*	*0.005*	0.07	*0.0001*
	Feb-25	0.2	0.02	*0.001*	*0.005*	0.040	*0.01*	*0.01*	57	0.2	68	*1*	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	*0.005*	0.14	*0.0001*
	Mar-25	*0.1*	0.03	*0.001*	*0.005*	0.020	*0.01*	*0.01*	70	*0.1*	85	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Apr-25	*0.1*	0.03	*0.001*	*0.005*	0.030	*0.01*	*0.01*	75	*0.1*	87	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.06	*0.0001*
	May-25	*0.1*	0.02	*0.001*	*0.005*	*0.010*	0.1	*0.01*	77	*0.1*	88	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jun-25	0.3	0.02	*0.001*	*0.005*	0.020	0.03	*0.01*	51	0.3	89	*1*	0.12	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.016	*0.001*	*0.001*	*0.005*	0.19	*0.0001*
CG-IS	Mar-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jul-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aug-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sep-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Oct-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	294	*0.1*	298	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Nov-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	0.02	*0.01*	287	*0.1*	336	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jan-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Parameter		Sheen/ oil/ grease	Temp. (°C)	Dissolved Oxygen (DO %)	DO (ppm)	Specific EC (SPC uS/cm)	EC (uS/cm)	pH	Redox (mV)	Turbidity (NTU)	Dissolved Al (mg/L)	Dissolved As (mg/L)	Dissolved Cd (mg/L)	Dissolved Cr (mg/L)	Dissolved Cu (mg/L)	Cyanide (mg/L)	Dissolved Fe (mg/L)	Dissolved Pb (mg/L)	Dissolved Mn (mg/L)	Dissolved Hg (mg/L)	Dissolved Ni (mg/L)
YARRANGOBILLY CATCHMENT																					
Default Guideline Value (DGV)		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
Limit of Reporting (LOR)				-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May Site Specific Guideline Value (SSGV)				96.2	9.08	115	93.2	7.85	79.1	0.37	0.03	0.0003	0.00002	0.00001	0.0002	0.002	0.03	0.001	0.002	0.00003	0.001
June - Nov SSGV				89.7	10.28	88	60.85	7.62	98.4	5.12	0.04	0.0003	0.00002	0.00001	0.0002	0.002	0.02	0.001	0.002	0.00003	0.001
YR1-IS	Mar-24	No	12.2	88.2	9.47	129.4	97.2	7.81	53.8	*0.1*	0.05	*0.00015*	*0.00001*	*0.000005*	0.002	*0.001*	*0.03*	*0.0005*	0.002	*0.000015*	*0.001*
	Apr-24	No	11.3	97.4	-	136.1	-	8.49	-	1.23	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	May-24	No	3.1	95.6	-	138.8	-	7.91	-	0.42	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Jun-24	No	5.6	94.3	-	112.4	-	7.80	-	1.94	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.14	*0.001*	0.003	*0.0001*	*0.001*
	Jul-24	No	6.4	93.0	-	51.5	-	6.93	-	10.05	0.18	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.11	*0.001*	0.002	*0.0001*	*0.001*
	Aug-24	No	8.6	89.8	-	55.8	-	7.87	-	3.62	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Sep-24	No	13.3	93.1	-	61.4	-	7.77	-	0.79	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Oct-24	No	12.5	94.9	-	66.8	-	7.77	-	2	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Nov-24	No	15	92.2	9.7	105	105	7.69	251	0.8	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.020	*0.0001*	*0.001*
	Dec-24	No	14.3	91.1	9.9	40.4	69	7.52	253	3.94	0.1	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	*0.001*	*0.0001*	*0.001*
	Jan-25	No	19.5	86.6	9	19.2	110	8.01	235	14.18	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.003	*0.0001*	*0.001*
	Feb-25	No	17.2	86.3	9.3	21.8	101	7.78	168	4.35	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.13	*0.001*	0.005	*0.0001*	*0.001*
	Mar-25	No	19.5	101.4	9.6	39.3	178	8.46	175	1.16	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Apr-25	Yes	18.7	91.6	10.4	36.3	171	8.76	195	0.98	*0.01*	*0.001*	*0.0001*	*0.001*	0.01	*0.002*	*0.05*	*0.001*	0.006	*0.0001*	*0.001*
	May-25	Yes	10.3	95.1	-	35.1	25.2	8.84	110.9	1.29	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Jun-25	No	-	-	-	-	-	-	-	-	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.12	*0.001*	0.003	*0.0001*	*0.001*
LHG-IS	Mar-24	Yes	11.9	59.2	6.38	596	447.2	7.35	-17.2	408.5	0.2	*0.00015*	*0.00001*	*0.001*	0.003	*0.001*	0.18	0.005	0.040	*0.000015*	0.003
	Apr-24	No	12.5	60.1	-	658	-	7.69	-	69.72	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.34	*0.001*	0.184	*0.0001*	*0.001*
	May-24	No	7	63.3	-	618	-	7.00	-	1003.7	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	0.71	*0.001*	0.184	*0.0001*	*0.001*
	Jun-24	No	8.5	70.4	-	616	-	7.65	-	10.05	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.48	*0.001*	0.158	*0.0001*	*0.001*
	Jul-24	No	8	87.5	-	503	-	7.30	-	5.44	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.07	*0.001*	0.025	*0.0001*	*0.001*
	Aug-24	No	11.4	83.0	-	408.8	-	7.74	-	76.59	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.07	*0.001*	0.020	*0.0001*	*0.001*
	Sep-24	No	9.7	87.3	-	424.6	-	7.68	-	6.13	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	0.045	*0.0001*	*0.001*
	Oct-24	No	12.4	86.5	-	432.4	-	7.59	-	2.2	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.10	*0.001*	0.036	*0.0001*	*0.001*
	Nov-24	No	12.1	83.1	9.9	537	537	7.91	254	3.6	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Dec-24	No	17.6	87.4	9.4	278.1	473	8.24	252	6.7	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.005	*0.0001*	*0.001*
	Jan-25	Yes	17.8	76.9	9.1	128.7	563	8.05	198	14.89	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.07	*0.001*	0.041	*0.0001*	*0.001*
	Feb-25	Yes	18.6	79.2	9.3	136.1	591	7.80	187	7.23	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	0.105	*0.0001*	*0.001*
	Mar-25	Yes	22	59.6	8.7	134.7	610	7.62	173	9.64	0.08	0.004	*0.0001*	*0.001*	0.015	*0.002*	2.51	*0.001*	0.597	*0.0001*	*0.001*
	Apr-25	Yes	17.9	54.1	8.9	131	645	7.52	207	50.12	*0.01*	0.003	*0.0001*	*0.001*	*0.001*	*0.002*	1.38	*0.001*	0.997	*0.0001*	*0.001*
	May-25	Yes	11.2	37.1	-	134	-	7.47	-	71.43	*0.01*	0.003	*0.0001*	*0.001*	*0.001*	*0.002*	1.9	*0.001*	0.736	*0.0001*	*0.001*
	Jun-25	No	9	68.5	-	136.5	-	7.25	-	1.32	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.75	*0.001*	0.261	*0.0001*	*0.001*
YR2-IS	Mar-24	No	12.3	88.5	9.47	130.8	99.1	7.93	43.2	*0.1*	0.03	*0.00015*	*0.00001*	*0.000005*	*0.001*	*0.001*	*0.02*	0.005	*0.001*	*0.000015*	*0.001*
	Apr-24	No	11.8	97.1	-	139.7	-	8.52	-	1.16	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.003	*0.0001*	*0.001*
	May-24	No	2.5	94.7	-	142.1	-	7.77	-	0.343	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	0.024	*0.05*	*0.001*	0.004	*0.0001*	*0.001*
	Jun-24	No	4.7	97.1	-	118.6	-	7.24	-	*0*	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.003	*0.0001*	*0.001*
	Jul-24	No	5.9	93.5	-	58.4	-	6.78	-	8.87	0.17	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.12	*0.001*	0.002	*0.0001*	*0.001*
	Aug-24	No	9.3	93.5	-	58.5	-	7.98	-	6.97	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Sep-24	No	13.4	93.8	-	66.7	-	7.62	-	1.56	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.005	*0.0001*	*0.001*
	Oct-24	No	11.6	93.7	-	69.9	-	7.34	-	1.8	0.03	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Nov-24	No	15.7	92.1	10	62	111	7.92	235	0.6	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Dec-24	No	13.6	90.3	9.8	44.1	75	7.84	220	5.64	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	*0.001*	*0.0001*	*0.001*
	Jan-25	No	28.9	90.5	8.8	28.5	123	8.09	226	1.32	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.004	*0.0001*	*0.001*
	Feb-25	No	19.3	91.3	9.4	23.3	109	7.97	170	5.89	0.11	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.11	*0.001*	0.005	*0.0001*	*0.001*
	Mar-25	No	22.2	102.1	9.5	39.9	182	8.55	158	0.89	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.003	*0.0001*	*0.001*
	Apr-25	No	18.1	95.3	10.5	37.7	178	8.46	195	0.94	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.003	*0.0001*	*0.001*
	May-25	No	10.8	96.8	-	35.7	26	8.87	110.1	1.27	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Jun-25	No	5.9	89.8	-	18.2	-	8.66	-	11.92	0.26	*0.001*	*0.0001*	*0.001*	0.002	*0.002*	0.18	*0.001*	0.004	*0.0001*	*0.001*

	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Parameter		TN (mg/L)	TP (mg/L)	Dissolved Ag (mg/L)	Dissolved Zn (mg/L)	Ammonia (mg/L)	Nitrogen Oxides (mg/L)	Reactive Phosphorous (mg/L)	Total Hardness (mg/L) (CaCO3)	Total Kjedahl Nitrogen (mg/L) (TKN)	TDS (mg/L)	TSS (mg/L)	Total Al (mg/L)	Total As (mg/L)	Total Cd (mg/L)	Total Cr (mg/L)	Total Cu (mg/L)	Total Pb (mg/L)	Total Mn (mg/L)	Total Ni (mg/L)	Total Ag (mg/L)	Total Zn (mg/L)	Total Fe (mg/L)	Total Hg (mg/L)
YARRANGOBILLY CATCHMENT																								
Default Guideline Value (DGV)		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
Limit of Reporting (LOR)		0.1	0.01	0.001	0.005	0.010	0.010	0.010	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May Site Specific Guideline V		0.2	0.02	0.00002	0.002	0.013	0.015	0.020	47	0.2	52	0.2												
June - Nov SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.015	30	0.2	39	1.0												
YR1-IS	Mar-24	*0.1*	*0.005*	*0.00001*	*0.001*	0.050	0.05	*0.005*	34	*0.1*	66	*0.1*												
	Apr-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	0.05	-	61	*0.05*	-	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.002	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	May-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	68	*0.1*	95	5	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jun-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	0.03	51	*0.1*	68	*1*	0.03	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jul-24	0.2	0.02	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	19	0.2	48	7	0.17	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.009	*0.001*	*0.001*	*0.005*	0.15	*0.0001*
	Aug-24	0.2	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	33	0.2	55	3	0.12	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.004	*0.001*	*0.001*	*0.005*	0.09	*0.0001*
	Sep-24	*0.1*	0.04	*0.001*	*0.005*	*0.010*	0.02	*0.01*	38	*0.1*	68	2	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.003	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Oct-24	*0.1*	0.02	*0.001*	0.006	0.020	*0.01*	*0.01*	41	*0.1*	60	2	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.005*	0.09	*0.0001*
	Nov-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	48	*0.1*	74	*1*	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.003	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Dec-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	0.02	*0.01*	31	*0.1*	52	4	0.17	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	0.039	0.15	*0.0001*
	Jan-25	0.6	0.05	*0.001*	*0.005*	0.080	0.05	*0.01*	56	0.6	81	47	0.27	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.051	*0.001*	*0.001*	0.009	0.33	*0.0001*
	Feb-25	0.2	0.03	*0.001*	*0.005*	0.040	0.02	*0.01*	46	0.2	51	4	0.15	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	0.015	0.16	*0.0001*
	Mar-25	*0.1*	*0.01*	*0.001*	*0.005*	0.030	*0.01*	*0.01*	90	*0.1*	100	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.003	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Apr-25	0.2	0.02	*0.001*	*0.005*	0.040	*0.01*	*0.01*	87	0.2	100	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	May-25	*0.1*	*0.01*	*0.001*	*0.005*	0.020	*0.01*	*0.01*	82	*0.1*	96	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.002	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jun-25	0.3	0.02	*0.001*	0.008	0.020	0.02	*0.01*	36	0.3	83	7	0.71	*0.001*	*0.0001*	0.002	*0.001*	*0.001*	0.014	0.002	*0.001*	0.01	0.56	*0.0001*
LHG-IS	Mar-24	*0.1*	*0.01*	*0.00001*	0.006	0.050	0.05	*0.005*	297	1	330	20												
	Apr-24	0.5	0.09	*0.001*	*0.005*	0.020	0.02	-	332	*0.02*	-	70	0.25	0.003	*0.0001*	*0.001*	0.002	*0.001*	0.51	0.006	*0.001*	0.009	2.22	*0.0001*
	May-24	0.5	0.05	*0.001*	*0.005*	0.040	0.06	*0.01*	365	0.4	402	5	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.177	*0.001*	*0.001*	*0.005*	1.09	*0.0001*
	Jun-24	0.2	0.04	*0.001*	*0.005*	0.020	0.02	*0.01*	313	0.2	339	17	0.38	0.002	*0.0001*	*0.001*	*0.001*	*0.001*	0.282	*0.001*	*0.001*	*0.005*	1.54	*0.0001*
	Jul-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	250	*0.1*	324	10	0.53	*0.001*	*0.0001*	*0.001*	0.002	*0.001*	0.033	*0.001*	*0.001*	*0.005*	0.16	*0.0001*
	Aug-24	*0.1*	*0.01*	*0.001*	0.006	0.020	*0.01*	*0.01*	282	*0.1*	360	9	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.026	*0.001*	*0.001*	*0.005*	0.17	*0.0001*
	Sep-24	*0.1*	0.09	*0.001*	0.008	*0.010*	*0.01*	*0.01*	294	*0.1*	394	10	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.051	*0.001*	*0.001*	*0.005*	0.19	*0.0001*
	Oct-24	*0.1*	0.02	*0.001*	*0.005*	0.020	*0.01*	*0.01*	312	*0.1*	362	3	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.034	*0.001*	*0.001*	*0.005*	0.26	*0.0001*
	Nov-24	*0.1*	*0.01*	*0.001*	*0.005*	0.100	*0.01*	*0.01*	307	*0.1*	363	16	0.15	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.023	*0.001*	*0.001*	*0.005*	0.21	*0.0001*
	Dec-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	264	*0.1*	298	7	0.13	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.014	*0.001*	*0.001*	*0.005*	0.12	*0.0001*
	Jan-25	*0.1*	0.04	*0.001*	*0.005*	0.030	*0.01*	*0.01*	333	*0.1*	362	33	0.26	0.002	*0.0001*	*0.001*	*0.001*	*0.001*	0.219	*0.001*	*0.001*	*0.005*	1.13	*0.0001*
	Feb-25	0.3	0.06	*0.001*	*0.005*	*0.010*	0.06	*0.01*	333	0.2	378	11	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.121	*0.001*	*0.001*	0.007	0.41	*0.0001*
	Mar-25	0.3	0.1	*0.001*	*0.005*	0.070	0.04	*0.01*	326	0.3	372	50	0.1	*0.001*	*0.0001*	*0.001*	0.01	*0.001*	0.559	*0.001*	*0.001*	0.006	4.16	*0.0001*
	Apr-25	0.4	0.16	*0.001*	0.008	0.030	*0.01*	*0.01*	348	0.4	372	64	0.55	0.01	*0.0001*	*0.001*	0.002	*0.001*	1.17	*0.001*	*0.001*	0.008	8.45	*0.0001*
	May-25	0.2	0.44	*0.001*	*0.005*	0.040	0.03	*0.01*	333	0.2	406	131	0.61	0.019	*0.0001*	*0.001*	*0.001*	0.002	2.22	0.002	*0.001*	0.009	19.2	*0.0001*
	Jun-25	0.2	0.02	*0.001*	0.008	0.030	*0.01*	*0.01*	333	0.2	452	9	0.22	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.281	*0.001*	*0.001*	*0.005*	1.32	*0.0001*
YR2-IS	Mar-24	*0.1*	*0.005*	*0.00001*	*0.001*	0.050	0.05	*0.005*	27	1	58	*0.1*												
	Apr-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	-	61	*0.01*	-	5	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.004	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	May-24	0.6	0.03	*0.001*	0.007	0.020	0.34	*0.01*	68	0.5	98	5	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.002	*0.001*	*0.001*	0.007	*0.05*	*0.0001*
	Jun-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	51	*0.1*	76	*1*	0.03	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.002	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jul-24	0.4	0.03	*0.001*	*0.005*	*0.010*	0.24	*0.01*	26	0.2	46	10	0.17	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.012	*0.001*	*0.001*	0.007	0.16	*0.0001*
	Aug-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	33	*0.1*	59	4	0.11	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.005	*0.001*	*0.001*	*0.005*	0.09	*0.0001*
	Sep-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	46	*0.1*	68	3	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.07	*0.0001*
	Oct-24	0.2	0.05	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	43	0.2	71	*1*	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.002	*0.001*	*0.001*	*0.005*	0.08	*0.0001*
	Nov-24	*0.1*	0.05	*0.001*	*0.005*	*0.010*	0.02	*0.01*	51	*0.1*	77	*1*	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.005	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Dec-24	*0.1*	*0.01*	*0.001*	*0.005*	0.020	0.08	*0.01*	33	*0.1*	55	6	0.21	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	*0.005*	0.18	*0.0001*
	Jan-25	0.2	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	63	0.2	87	*1*	0.2	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.004	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Feb-25	0.4	0.02	*0.001*	*0.005*	0.020	0.05	*0.01*	48	0.3	72	5	0.2	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	*0.005*	0.21	*0.0001*
	Mar-25	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	90	*0.1*	104	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.004	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Apr-25	*0.1*	0.04	*0.001*	*0.005*	0.020	0.02	*0.01*	87	*0.1*	100	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.004	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	May-25	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	0.03	*0.01*	82	*0.1*	94	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.002	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jun-25	9.3	*0.01*	*0.001*	*0.005*	*0.010*	8.13	*0.01*	36	1.2	62	6	0.67	*0.001*	*0.0001*	0.002	*0.001*	*0.001*	0.011	0.002	*0.001*	*0.005*	0.48	*0.0001*

	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Parameter		Sheen/ oil/ grease	Temp. (°C)	Dissolved Oxygen (DO %)	DO (ppm)	Specific EC (SPC uS/cm)	EC (uS/cm)	pH	Redox (mV)	Turbidity (NTU)	Dissolved Al (mg/L)	Dissolved As (mg/L)	Dissolved Cd (mg/L)	Dissolved Cr (mg/L)	Dissolved Cu (mg/L)	Cyanide (mg/L)	Dissolved Fe (mg/L)	Dissolved Pb (mg/L)	Dissolved Mn (mg/L)	Dissolved Hg (mg/L)	Dissolved Ni (mg/L)
YARRANGOBILLY CATCHMENT																					
Default Guideline Value (DGV)		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
Limit of Reporting (LOR)			-	-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May Site Specific Guideline Value (SSGV)				96.2	9.08	115	93.2	7.85	79.1	0.37	0.03	0.0003	0.00002	0.00001	0.0002	0.002	0.03	0.001	0.002	0.00003	0.001
June - Nov SSGV				89.7	10.28	88	60.85	7.62	98.4	5.12	0.04	0.0003	0.00002	0.00001	0.0002	0.002	0.02	0.001	0.002	0.00003	0.001
SSC-IS	Mar-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jul-24	No	8	90.1	-	152.6	-	6.29	-	17.88	0.1	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.07	*0.001*	0.002	*0.0001*	*0.001*
	Aug-24	No	12.1	94.0	-	120.9	-	7.78	-	3.9	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Sep-24	No	12.2	84.1	-	122.2	-	7.10	-	3.53	0.05	*0.001*	*0.0001*	*0.001*	0.003	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Oct-24	No	10.1	81.5	-	110.3	-	6.83	-	8.9	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Nov-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	No	18.8	90.7	9.4	68.5	118	7.97	188	44.29	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Jan-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Parameter		TN (mg/L)	TP (mg/L)	Dissolved Ag (mg/L)	Dissolved Zn (mg/L)	Ammonia (mg/L)	Nitrogen Oxides (mg/L)	Reactive Phosphorous (mg/L)	Total Hardness (mg/L) (CaCO3)	Total Kjedahl Nitrogen (mg/L) (TKN)	TDS (mg/L)	TSS (mg/L)	Total Al (mg/L)	Total As (mg/L)	Total Cd (mg/L)	Total Cr (mg/L)	Total Cu (mg/L)	Total Pb (mg/L)	Total Mn (mg/L)	Total Ni (mg/L)	Total Ag (mg/L)	Total Zn (mg/L)	Total Fe (mg/L)	Total Hg (mg/L)
YARRANGOBILLY CATCHMENT																								
Default Guideline Value (DGV)		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
Limit of Reporting (LOR)		0.1	0.01	0.001	0.005	0.010	0.010	0.010	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May Site Specific Guideline V		0.2	0.02	0.00002	0.002	0.013	0.015	0.020	47	0.2	52	0.2												
June - Nov SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.015	30	0.2	39	1.0												
SSC-IS	Mar-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jul-24	1.8	0.03	*0.001*	0.024	0.030	0.85	*0.01*	62	0.9	110	*1*	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	0.025	0.4	*0.0001*
	Aug-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	62	*0.1*	110	5	0.21	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.005*	0.09	*0.0001*
	Sep-24	0.7	0.03	*0.001*	0.036	*0.010*	0.07	*0.01*	65	0.6	108	5	0.10	*0.001*	*0.0001*	*0.001*	0.003	*0.001*	0.004	*0.001*	*0.001*	0.028	0.08	*0.0001*
	Oct-24	0.4	0.02	*0.001*	*0.005*	*0.010*	0.18	*0.01*	58	0.2	100	*1*	0.13	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.005*	0.1	*0.0001*
	Nov-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	*0.1*	*0.01*	*0.001*	*0.005*	*0.01*	*0.01*	*0.01*	53	*0.1*	85	6	0.57	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.013	*0.001*	*0.001*	*0.005*	0.41	*0.0001*
	Jan-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Parameter		Sheen/ oil/ grease	Temp. (°C)	Dissolved Oxygen (DO %)	DO (ppm)	Specific EC (SPC uS/cm)	EC (uS/cm)	pH	Redox (mV)	Turbidity (NTU)	Dissolved Al (mg/L)	Dissolved As (mg/L)	Dissolved Cd (mg/L)	Dissolved Cr (mg/L)	Dissolved Cu (mg/L)	Cyanide (mg/L)	Dissolved Fe (mg/L)	Dissolved Pb (mg/L)	Dissolved Mn (mg/L)	Dissolved Hg (mg/L)	Dissolved Ni (mg/L)
TALBINGO RESERVOIR																					
DGV		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
LOR				-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May SSGV				91.3	8.79	24.0	20.3	7.59	91.2	0.09	0.03	0.003	0.00002	0.00001	0.0002	0.002	0.04	0.001	0.003	0.00003	0.001
June - Nov SSGV				95.5	11.53	38.7	26.2	7.59	95.4	1.56	0.015	0.0003	0.00002	0.00001	0.0002	0.002	0.02	0.001	0.002	0.00003	0.001
TR-RS	Mar-24	No	13.4	72.5	7.57	24	18.7	7.10	55	*0.10*	0.015	*0.00015*	*0.00001*	*0.000005*	*0.0001*	*0.001*	*0.05*	0.005	0.005	*0.000015*	*0.0005*
	Apr-24	No	12.2	85.9	-	25.9	-	7.17	-	*0.02*	*0.01*	*0.001*	*0.0001*	*0.001*	0.005	*0.002*	*0.05*	*0.001*	0.026	*0.0001*	*0.001*
	May-24	No	10.1	91.5	-	30.2	-	6.80	-	0.65	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Jun-24	No	8.7	91.6	-	26.4	-	8.32	-	*0.10*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.010	*0.0001*	*0.001*
	Jul-24	No	6	92.1	-	28.7	-	7.76	-	1.35	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.003	*0.0001*	*0.001*
	Aug-24	No	12.7	91.5	-	26.3	-	6.67	-	2.0	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Sep-24	No	10.2	96.2	-	25	-	7.78	-	0.58	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Oct-24	No	9.5	95.2	-	15.3	-	7.78	-	1.7	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.008	*0.0001*	*0.001*
	Nov-24	No	15.6	92.1	9.7	55	55	7.73	271	1.6	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.05	*0.0001*	*0.001*
	Dec-24	No	22.8	95.5	9.1	22.2	38	7.97	200	3.76	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Jan-25	No	25.7	91.6	9.1	27.8	44	7.23	234	1.61	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*
	Feb-25	No	24.6	94.8	9.1	8.7	40	7.61	168	2.16	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Mar-25	No	21.3	90.1	8.9	8.3	36	7.56	138	3.25	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.002	*0.0001*	*0.001*
	Apr-25	No	17.6	67.6	9.9	5.8	26	6.96	190	1.3	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.03	*0.0001*	*0.001*
	May-25	No	12.3	88.6	-	5.9	4.5	7.59	109.8	1.68	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.003	*0.0001*	*0.001*
	Jun-25	No	10.5	86.4	-	6.1	-	8.34	-	3.15	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.008	*0.0001*	*0.001*

Parameter		TN (mg/L)	TP (mg/L)	Dissolved Ag (mg/L)	Dissolved Zn (mg/L)	Ammonia (mg/L)	Nitrogen Oxides (mg/L)	Reactive Phosphorous (mg/L)	Total Hardness (mg/L) (CaCO3)	Total Kjedahl Nitrogen (mg/L) (TKN)	TDS (mg/L)	TSS (mg/L)	Total Al (mg/L)	Total As (mg/L)	Total Cd (mg/L)	Total Cr (mg/L)	Total Cu (mg/L)	Total Pb (mg/L)	Total Mn (mg/L)	Total Ni (mg/L)	Total Ag (mg/L)	Total Zn (mg/L)	Total Fe (mg/L)	Total Hg (mg/L)
TALBINGO RESERVOIR																								
DGV		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
LOR		0.1	0.01	0.001	0.005	0.010	0.010	0.01	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.02	7.5	0.1	12.5	0.2												
June - Nov SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.015	8	0.2	15	0.2												
TR-RS	Mar-24	*0.1*	*0.01*	*0.00001*	*0.001*	0.050	0.05	*0.005*	8	*0.1*	44	*0.1*												
	Apr-24	1.3	0.02	*0.001*	0.066	0.030	0.12	-	5	0.12	-	3	0.02	*0.001*	*0.0001*	*0.001*	0.006	*0.001*	0.039	0.002	*0.001*	0.067	0.07	*0.0001*
	May-24	0.3	0.03	*0.001*	0.023	0.020	0.03	*0.01*	5	0.3	35	5	0.03	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.033	*0.001*	*0.001*	0.012	0.06	*0.0001*
	Jun-24	2.3	*0.01*	*0.001*	*0.005*	*0.010*	1.92	*0.01*	5	0.4	17	2	0.03	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.056	*0.001*	*0.001*	*0.005*	0.07	*0.0001*
	Jul-24	*0.1*	0.02	*0.001*	*0.005*	0.030	0.04	*0.01*	5	*0.1*	17	2	0.05	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.014	*0.001*	*0.001*	*0.005*	0.06	*0.0001*
	Aug-24	0.4	0.02	*0.001*	0.011	0.020	0.07	*0.01*	12	0.3	30	*1*	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.004	*0.001*	*0.001*	0.008	*0.05*	*0.0001*
	Sep-24	0.2	0.03	*0.001*	*0.005*	*0.010*	0.06	*0.01*	14	*0.1*	27	2	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.07	*0.0001*
	Oct-24	0.2	0.02	*0.001*	0.013	0.040	0.02	*0.01*	14	0.2	38	4	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	*0.005*	0.11	*0.0001*
	Nov-24	*0.1*	0.05	*0.001*	*0.005*	*0.010*	0.02	*0.01*	21	*0.1*	45	5	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.07	*0.001*	*0.001*	*0.005*	0.23	*0.0001*
	Dec-24	*0.1*	0.06	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	14	*0.1*	25	2	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	0.007	0.06	*0.0001*
	Jan-25	0.2	0.02	*0.001*	*0.005*	0.020	*0.01*	*0.01*	17	0.2	46	6	0.03	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.018	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Feb-25	0.2	0.03	*0.001*	*0.005*	0.020	*0.01*	*0.01*	14	0.2	28	*1*	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.017	*0.001*	*0.001*	*0.005*	0.07	*0.0001*
	Mar-25	0.2	0.03	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	14	0.2	28	*1*	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.019	*0.001*	*0.001*	*0.005*	0.06	*0.0001*
	Apr-25	0.4	0.05	*0.001*	*0.005*	0.020	0.05	*0.01*	5	0.3	22	*1*	0.03	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.051	*0.001*	*0.001*	*0.005*	0.09	*0.0001*
	May-25	0.2	0.07	*0.001*	*0.005*	0.030	*0.01*	0.02	9	0.2	16	*1*	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.03	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*
	Jun-25	*0.1*	0.06	*0.001*	*0.005*	0.040	0.04	*0.01*	5	*0.1*	56	*1*	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.046	*0.001*	*0.001*	*0.005*	*0.05*	*0.0001*

	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Parameter		Sheen/ oil/ grease	Temp. (°C)	Dissolved Oxygen (DO %)	DO (ppm)	Specific EC (SPC uS/cm)	EC (uS/cm)	pH	Redox (mV)	Turbidity (NTU)	Dissolved Al (mg/L)	Dissolved As (mg/L)	Dissolved Cd (mg/L)	Dissolved Cr (mg/L)	Dissolved Cu (mg/L)	Cyanide (mg/L)	Dissolved Fe (mg/L)	Dissolved Pb (mg/L)	Dissolved Mn (mg/L)	Dissolved Hg (mg/L)	Dissolved Ni (mg/L)
YORKERS CREEK CATCHMENT																					
DGV		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
LOR				-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May SSGV				89.6	8.35	31	24	6.79	94.6	9	0.36	0.003	0.00002	0.00001	0.002	0.002	0.41	0.001	0.005	0.00003	0.001
June - Nov SSGV				88.7	10.2	27.9	20.5	6.61	106.1	7.87	0.32	0.0003	0.00002	0.00001	0.0002	0.002	0.23	0.001	0.003	0.00003	0.001
YK-RS	Mar-24	Yes	16.3	82.5	8.09	31.5	26.2	6.69	64.5	12.24	0.6	*0.00015*	*0.00001*	*0.000005*	*0.001*	*0.001*	0.66	0.002	0.013	*0.000015*	*0.0005*
	Apr-24	No	6.8	80.7	-	36.5	-	7.04	-	17.27	0.10		*0.0001*	*0.001*	*0.001*	*0.002*	0.12	*0.001*	0.014	*0.0001*	*0.001*
	May-24	No	4.2	85.1	-	34.7	-	6.62	-	0.3	0.10	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	0.17	*0.001*	0.026	*0.0001*	*0.001*
	Jun-24	No	3.5	84.2	-	30.1	-	7.99	-	26.48	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.18	*0.001*	0.021	*0.0001*	*0.001*
	Jul-24	No	2.9	83.1	-	27.8	-	7.40	-	7.97	0.19	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.21	*0.001*	0.010	*0.0001*	*0.001*
	Aug-24	No	7.3	82.7	-	21.6	-	6.89	-	19.36	0.33	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.29	*0.001*	0.017	*0.0001*	*0.001*
	Sep-24	No	12.3	86.5	-	19.5	-	7.58	-	15.51	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.16	*0.001*	0.013	*0.0001*	*0.001*
	Oct-24	No	18.3	87.8		21.8	-	7.55	-	17.9	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.15	*0.001*	0.013	*0.0001*	*0.001*
	Nov-24	No	19.3	84.8	9	30	30	6.68	259	13.8	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.12	*0.001*	0.014	*0.0001*	*0.001*
	Dec-24	No	22.9	82.6	8.3	18.7	31	7.52	238	19	0.13	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.16	*0.001*	0.024	*0.0001*	*0.001*
	Jan-25	No	17.4	72.5	8.8	24.5	40	7.26	209	15.77	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.15	*0.001*	0.015	*0.0001*	*0.001*
	Feb-25	Yes	22.8	76.3	8.9	8.6	38	7.09	174	21.19	0.18	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.32	*0.001*	0.009	*0.0001*	*0.001*
	Mar-25	No	17.4	81.4	9.3	9.7	43	7.46	170	20.65	0.45	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.3	*0.001*	0.009	*0.0001*	*0.001*
	Apr-25	No	11	77.6	10.2	8.6	39	7.64	148	15.23	0.12	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.17	*0.001*	0.004	*0.0001*	*0.001*
	May-25	Yes	4.2	83.9	-	9.1	5.5	7.73	116.9	11.81	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.14	*0.001*	0.004	*0.0001*	*0.001*
	Jun-25	No	5.4	83.0	-	7.8	-	8.24	-	14.6	0.19	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.31	*0.001*	0.016	*0.0001*	*0.001*
YK-IS (D/S)	Mar-24	No	10	81.6	9.21	39.1	27.9	7.02	63.2	*0.1*	*0.0065*	*0.00015*	*0.00001*	*0.000005*	*0.0001*	*0.001*	0.26	*0.0005*	0.006	*0.000015*	*0.0005*
	Apr-24	No	5.9	86.0	-	39.4	-	7.33	-	221.78	0.05	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.11	*0.001*	0.014	*0.0001*	*0.001*
	May-24	No	3.1	85.9	-	39.6	-	6.59	-	0.8	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	0.15	*0.001*	0.021	*0.0001*	*0.001*
	Jun-24	No	3.2	84.6	-	38.9	-	7.76	-	2.46	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.1	*0.001*	0.009	*0.0001*	*0.001*
	Jul-24	No	3.2	85.0	-	32.8	-	7.11	-	8.29	0.28	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.22	*0.001*	0.005	*0.0001*	*0.001*
	Aug-24	No	7.3	84.7	-	23.2	-	6.85	-	22.38	0.51	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.34	*0.001*	0.011	*0.0001*	*0.001*
	Sep-24	No	9.3	84.5	-	26.9	-	7.52	-	3.34	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.1	*0.001*	0.008	*0.0001*	*0.001*
	Oct-24	No	11.3	84.0		27		7.36		6.4	0.1	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.12	*0.001*	0.010	*0.0001*	*0.001*
	Nov-24	No	13.5	83.3	9.4	38	38	7.17	268	5.5	0.05	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.1	*0.001*	0.011	*0.0001*	*0.001*
	Dec-24	No	17.7	82.9	9.2	22.2	550	7.03	463	6.27	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.1	*0.001*	0.004	*0.0001*	*0.001*
	Jan-25	No	16.2	79.2	9.2	28.2	48	7.40	233	2.44	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.14	*0.001*	0.013	*0.0001*	*0.001*
	Feb-25	No	20.5	85.0	9.3	10.4	47	7.09	150	5.32	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.24	*0.001*	0.016	*0.0001*	*0.001*
	Mar-25	No	15.9	89.2	9.6	10.7	48	7.32	152	3.01	0.07	*0.001*	*0.0001*	*0.001*	0.002	*0.002*	0.21	*0.001*	0.016	*0.0001*	*0.001*
	Apr-25	No	12.5	84.0	10.7	11.1	49	7.42	166	2.71	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.1	*0.001*	0.018	*0.0001*	*0.001*
	May-25	No	5.4	85.5	-	10.6	6.6	7.54	111.1	2.84	0.05	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.1	*0.001*	0.013	*0.0001*	*0.001*
	Jun-25	No	5.6	83.1	-	8.1	-	8.07	-	18.14	0.18	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.3	*0.001*	0.01	*0.0001*	*0.001*
NZG-IS	Mar-24	No	9.6	80.2	9.13	64.2	45.3	7.45	31.1	*0.1*	0.14	*0.00015*	*0.00001*	*0.000005*	*0.0001*	*0.001*	0.18	*0.0005*	0.004	*0.000015*	*0.0005*
	Apr-24	No	6.4	84.9	-	67.1	-	7.36	-	0.96	0.03		*0.0001*	*0.001*	*0.001*	*0.002*	0.08	*0.001*	0.006	*0.0001*	*0.001*
	May-24	No	3.9	85.8	-	66.6	-	6.68	-	0.2	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	0.07	*0.001*	0.007	*0.0001*	*0.001*
	Jun-24	No	4.4	82.7	-	64.1	-	8.14	-	0.89	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.07	*0.001*	0.005	*0.0001*	*0.001*
	Jul-24	No	3.7	83.9	-	34.8	-	7.44	-	13.66	0.2	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.18	*0.001*	0.004	*0.0001*	*0.001*
	Aug-24	No	7.7	84.4	-	28.9	-	6.95	-	15.47	0.44	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.31	*0.001*	0.008	*0.0001*	*0.001*
	Sep-24	No	8.2	84.6	-	38.2	-	7.32	-	2.02	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.08	*0.001*	0.004	*0.0001*	*0.001*
	Oct-24	No	11.1	84.5		39.6		7.47		5.3	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.11	*0.001*	0.008	*0.0001*	*0.001*
	Nov-24	No	12.4	82.2	9.6	32.4	57	7.29	276	1.4	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	0.005	*0.0001*	*0.001*
	Dec-24	No	17.3	84.8	9.2	32.8	52	7.30	304	3.79	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	*0.001*	*0.0001*	*0.001*
	Jan-25	No	13.6	75.2	9.3	42.7	72	7.40	208	4.83	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	0.005	*0.05*	*0.001*	0.004	*0.0001*	*0.001*
	Feb-25	No	19	87.1	9.3	16.6	75	7.42	176	2.72	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.09	*0.001*	0.004	*0.0001*	*0.001*
	Mar-25	No	13.6	84.1	9.6	17.4	78	7.75	165	1.91	0.03	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.07	*0.001*	0.005	*0.0001*	*0.001*
	Apr-25	No	9	78.4	10.7	16.6	75	8.24	177	2.03	0.05	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.1	*0.001*	0.007	*0.0001*	*0.001*
	May-25	No	3.7	80.3	-	16.4	9.7	7.71	117.1	1.78	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.004	*0.0001*	*0.001*
	Jun-25	No	5.5	83.5	-	-	-	8.47	-	4.66	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.14	*0.001*	0.006	*0.0001*	*0.001*

	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Parameter		TN (mg/L)	TP (mg/L)	Dissolved Ag (mg/L)	Dissolved Zn (mg/L)	Ammonia (mg/L)	Nitrogen Oxides (mg/L)	Reactive Phosphorous (mg/L)	Total Hardness (mg/L) (CaCO3)	Total Kjedahl Nitrogen (mg/L) (TKN)	TDS (mg/L)	TSS (mg/L)	Total Al (mg/L)	Total As (mg/L)	Total Cd (mg/L)	Total Cr (mg/L)	Total Cu (mg/L)	Total Pb (mg/L)	Total Mn (mg/L)	Total Ni (mg/L)	Total Ag (mg/L)	Total Zn (mg/L)	Total Fe (mg/L)	Total Hg (mg/L)
YORKERS CREEK CATCHMENT																								
DGV		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
LOR		0.1	0.01	0.001	0.005	0.010	0.010	0.01	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.02	1	0.1	30	3												
June - Nov SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.02	7	0.2	10	0.2												
YK-RS	Mar-24	*0.1*	0.03	*0.00001*	*0.003*	0.050	0.05	*0.005*	*1*	*0.1*	30	3												
	Apr-24	0.6	0.04	*0.001*	0.013	0.020	0.02	-	9	*0.02*	-	24	0.15	*0.001*	*0.0001*	*0.001*	0.007	*0.001*	0.021	0.006	*0.001*	0.016	0.46	*0.0001*
	May-24	0.3	0.04	*0.001*	*0.005*	0.030	0.02	*0.01*	9	0.3	37	5	0.10	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.027	*0.001*	*0.001*	*0.005*	0.34	*0.0001*
	Jun-24	0.4	0.04	*0.001*	*0.005*	0.020	0.02	0.03	9	0.4	21	15	0.23	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.032	*0.001*	*0.001*	*0.005*	0.50	*0.0001*
	Jul-24	0.4	0.04	*0.001*	0.007	*0.010*	0.05	*0.01*	9	0.4	41	7	0.59	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.017	*0.001*	*0.001*	*0.005*	0.53	*0.0001*
	Aug-24	0.9	0.07	*0.001*	0.012	*0.010*	*0.01*	*0.01*	9	0.9	34	19	1.82	*0.001*	*0.0001*	0.003	*0.001*	*0.001*	0.076	*0.001*	*0.001*	*0.005*	1.77	*0.0001*
	Sep-24	0.2	0.05	*0.001*	0.010	*0.010*	0.04	*0.01*	9	0.2	28	19	0.28	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.023	*0.001*	*0.001*	*0.005*	0.52	*0.0001*
	Oct-24	0.2	0.03	*0.001*	*0.005*	*0.010*	0.05	*0.01*	5	0.2	21	22	0.24	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.02	*0.001*	*0.001*	*0.005*	0.45	*0.0001*
	Nov-24	*0.1*	0.04	*0.001*	0.008	0.020	0.03	*0.01*	9	*0.1*	46	30	1.29	*0.001*	*0.0001*	0.002	*0.001*	*0.001*	0.032	*0.001*	*0.001*	*0.005*	1.05	*0.0001*
	Dec-24	0.3	0.04	*0.001*	*0.005*	*0.010*	0.04	*0.01*	9	0.3	40	22	0.22	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.031	*0.001*	*0.001*	*0.005*	0.51	*0.0001*
	Jan-25	0.7	0.05	*0.001*	*0.005*	0.080	0.06	*0.01*	12	0.6	62	27	0.43	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.038	*0.001*	*0.001*	*0.005*	0.96	*0.0001*
	Feb-25	0.6	0.07	*0.001*	*0.005*	0.040	*0.01*	*0.01*	9	0.6	58	12	0.4	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.017	*0.001*	*0.001*	0.007	0.77	*0.0001*
	Mar-25	0.4	0.06	*0.001*	*0.005*	0.020	*0.01*	*0.01*	16	0.4	28	20	0.39	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.015	*0.001*	*0.001*	*0.005*	0.7	*0.0001*
	Apr-25	0.2	*0.01*	*0.001*	*0.005*	0.040	*0.01*	*0.01*	16	0.2	30	8	0.78	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.009	*0.001*	*0.001*	*0.005*	0.74	*0.0001*
	May-25	0.3	0.02	*0.001*	*0.005*	*0.010*	0.18	*0.01*	16	*0.1*	33	4	0.52	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.009	*0.001*	*0.001*	*0.005*	0.63	*0.0001*
	Jun-25	0.6	0.09	*0.001*	*0.005*	*0.010*	0.02	*0.01*	9	0.6	90	30	1.07	*0.001*	*0.0001*	0.002	*0.001*	*0.001*	0.023	*0.001*	*0.001*	*0.005*	0.88	*0.0001*
YK-IS (D/S)	Mar-24	*0.1*	0.02	*0.00001*	*0.002*	0.050	0.05	*0.005*	*1*	*0.1*	15	*0.1*												
	Apr-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	0.03	-	16	*0.03*	-	3	0.1	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.016	0.003	*0.001*	0.006	0.26	*0.0001*
	May-24	0.8	0.04	*0.001*	*0.005*	*0.010*	0.53	*0.01*	12	0.3	39	9	0.12	*0.001*	*0.0001*	0.003	*0.001*	*0.001*	0.035	0.002	*0.001*	*0.005*	0.61	*0.0001*
	Jun-24	0.2	0.04	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	12	0.2	25	2	0.48	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.027	*0.001*	*0.001*	*0.005*	0.66	*0.0001*
	Jul-24	0.8	0.04	*0.001*	0.007	*0.010*	0.26	*0.01*	9	0.3	52	5	0.3	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.011	*0.001*	*0.001*	*0.005*	0.32	*0.0001*
	Aug-24	0.6	0.04	*0.001*	*0.005*	*0.010*	0.09	*0.01*	9	0.5	70	17	1.02	*0.001*	*0.0001*	0.005	*0.001*	*0.001*	0.026	*0.001*	*0.001*	*0.005*	0.89	*0.0001*
	Sep-24	0.2	0.02	*0.001*	0.011	*0.010*	*0.01*	*0.01*	12	0.2	29	3	0.16	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.012	*0.001*	*0.001*	*0.005*	0.26	*0.0001*
	Oct-24	0.3	0.04	*0.001*	0.009	0.030	0.11	*0.01*	5	0.2	24	4	0.22	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	*0.005*	0.28	*0.0001*
	Nov-24	*0.1*	0.04	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	12	*0.1*	48	8	0.26	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.07	*0.001*	*0.001*	*0.005*	0.41	*0.0001*
	Dec-24	0.2	*0.01*	*0.001*	*0.005*	*0.010*	0.02	*0.01*	12	0.2	124	5	0.13	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	*0.001*	*0.001*	0.011	0.27	*0.0001*
	Jan-25	0.2	0.03	*0.001*	*0.005*	0.050	0.02	*0.01*	18	0.2	62	2	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.013	*0.001*	*0.001*	*0.005*	0.14	*0.0001*
	Feb-25	0.3	0.04	*0.001*	*0.005*	0.020	*0.01*	*0.01*	18	0.3	51	*1*	0.25	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.021	*0.001*	*0.001*	*0.005*	0.45	*0.0001*
	Mar-25	0.3	0.02	*0.001*	*0.005*	0.050	0.09	*0.01*	18	0.2	43	2	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.019	*0.001*	*0.001*	*0.005*	0.33	*0.0001*
	Apr-25	0.2	0.02	*0.001*	*0.005*	0.030	*0.01*	*0.01*	18	0.2	39	*1*	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.02	*0.001*	*0.001*	*0.005*	0.26	*0.0001*
	May-25	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	18	*0.1*	36	*1*	0.17	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.033	*0.001*	*0.001*	*0.005*	0.44	*0.0001*
	Jun-25	0.4	0.04	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	12	0.4	89	5	0.24	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.015	*0.001*	*0.001*	*0.005*	0.46	*0.0001*
NZG-IS	Mar-24	*0.1*	*0.01*	*0.00001*	*0.002*	0.050	0.05	*0.005*	10	*0.1*	22	*0.1*												
	Apr-24	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	-	23	*0.01*	-	6	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.012	*0.001*	*0.001*	*0.005*	0.24	*0.0001*
	May-24	0.2	0.06	*0.001*	0.007	*0.010*	0.03	*0.01*	23	0.2	60	5	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.021	*0.001*	*0.001*	*0.005*	0.35	*0.0001*
	Jun-24	0.2	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	23	0.2	38	20	0.12	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.037	*0.001*	*0.001*	*0.005*	0.67	*0.0001*
	Jul-24	0.2	0.04	*0.001*	*0.005*	*0.010*	0.04	*0.01*	12	0.2	52	8	0.22	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.009	*0.001*	*0.001*	*0.005*	0.26	*0.0001*
	Aug-24	0.4	0.04	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	12	0.4	44	19	0.92	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.023	*0.001*	*0.001*	*0.005*	0.85	*0.0001*
	Sep-24	*0.1*	0.04	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	21	*0.1*	41	3	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.15	*0.0001*
	Oct-24	0.3	0.03	*0.001*	*0.005*	0.020	0.07	*0.01*	12	0.2	26	3	0.17	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.01	0.002	*0.001*	*0.005*	0.27	*0.0001*
	Nov-24	*0.1*	0.04	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	21	*0.1*	60	*1*	0.11	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.14	*0.0001*
	Dec-24	0.2	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	21	0.2	50	*1*	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	*0.005*	0.16	*0.0001*
	Jan-25	0.4	0.02	*0.001*	*0.005*	0.070	0.4	*0.01*	26	0.4	74	4	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.008	*0.001*	*0.001*	*0.005*	0.16	*0.0001*
	Feb-25	0.2	0.04	*0.001*	*0.005*	0.030	*0.01*	*0.01*	30	0.2	64	2	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	*0.005*	0.14	*0.0001*
	Mar-25	0.2	0.02	*0.001*	*0.005*	*0.010*	0.17	0.02	32	*0.1*	66	2	0.11	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.007	*0.001*	*0.001*	*0.005*	0.18	*0.0001*
	Apr-25	0.2	0.04	*0.001*	*0.005*	0.020	*0.01*	*0.01*	30	0.2	58	*1*	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.12	*0.0001*
	May-25	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	0.02	30	*0.1*	54	*1*	0.11	*0.001*	*0.0001*	*0.001*	0.005	*0.001*	0.008	*0.001*	*0.001*	0.011	0.16	*0.0001*
	Jun-25	*0.1*	0.02	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	23	*0.1*	85	*1*	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.005	*0.001*	*0.001*	*0.005*	0.18	*0.0001*

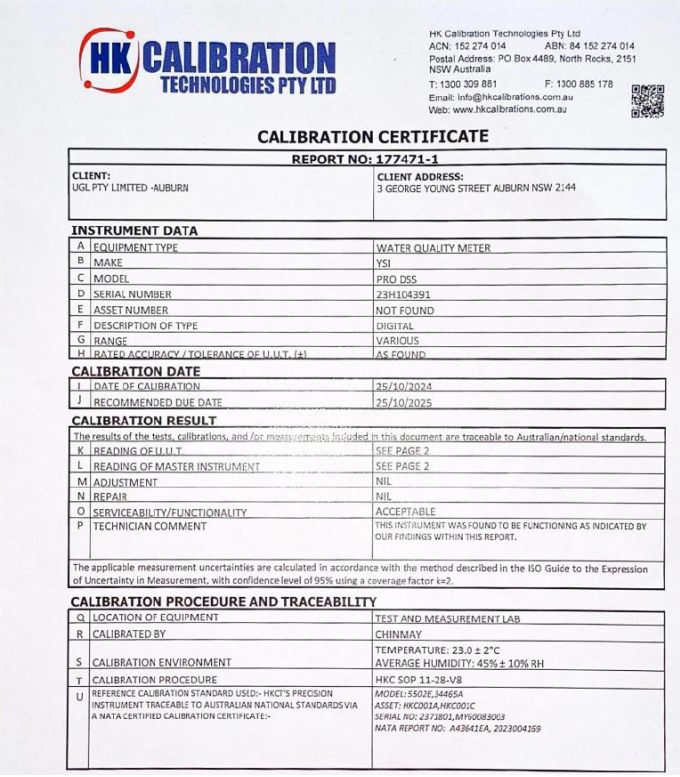
	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Parameter		Sheen/ oil/ grease	Temp. (°C)	Dissolved Oxygen (DO %)	DO (ppm)	Specific EC (SPC uS/cm)	EC (uS/cm)	pH	Redox (mV)	Turbidity (NTU)	Dissolved Al (mg/L)	Dissolved As (mg/L)	Dissolved Cd (mg/L)	Dissolved Cr (mg/L)	Dissolved Cu (mg/L)	Cyanide (mg/L)	Dissolved Fe (mg/L)	Dissolved Pb (mg/L)	Dissolved Mn (mg/L)	Dissolved Hg (mg/L)	Dissolved Ni (mg/L)
YORKERS CREEK CATCHMENT																					
DGV		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
LOR				-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May SSGV				89.6	8.35	31	24	6.79	94.6	9	0.36	0.003	0.00002	0.00001	0.002	0.002	0.41	0.001	0.005	0.00003	0.001
June - Nov SSGV				88.7	10.2	27.9	20.5	6.61	106.1	7.87	0.32	0.0003	0.00002	0.00001	0.0002	0.002	0.23	0.001	0.003	0.00003	0.001
YK-IS	Mar-24	No	11.4	78.0	8.53	35	25.8	6.70	41.1	21.44	0.45	*0.00015*	*0.00001*	*0.000005*	*0.001*	*0.001*	0.4	*0.0005*	0.018	*0.000015*	*0.0005*
	Apr-24	No	6.8	80.7	-	36.5	-	7.04	-	12.37	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.15	*0.001*	0.016	*0.0001*	*0.001*
	May-24	No	4.7	82.7	-	35.8	-	6.43	-	0.2	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	0.004	0.1	*0.001*	0.015	*0.0001*	*0.001*
	Jun-24	No	3.9	83.1	-	35.1	-	7.88	-	7.99	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.15	*0.001*	0.010	*0.0001*	*0.001*
	Jul-24	No	3.2	82.8	-	32.5	-	7.00	-	11.9	0.31	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.25	*0.001*	0.008	*0.0001*	*0.001*
	Aug-24	No	7.2	81.3	-	23.5	-	6.70	-	25.12	0.67	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.46	*0.001*	0.015	*0.0001*	0.002
	Sep-24	No	9.3	83.4	-	23.8	-	7.41	-	6.24	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.13	*0.001*	0.009	*0.0001*	*0.001*
	Oct-24	No	13.7	86.3		23.7		7.83		3.1	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	0.004	*0.0001*	*0.001*
	Nov-24	No	14.7	83.3	9.3	27.7	32	7.17	279	4.6	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.12	*0.001*	0.016	*0.0001*	*0.001*
	Dec-24	No	18.4	80.2	8.7	21.4	35	7.15	256	10.86	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.16	*0.001*	0.017	*0.0001*	*0.001*
	Jan-25	No	16.1	69.0	8.7	25.7	43	7.09	232	1.98	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.12	*0.001*	0.051	*0.0001*	*0.001*
	Feb-25	No	21	73.5	8.8	9.1	40	6.61	175	9.85	0.46	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.46	*0.001*	0.036	*0.0001*	*0.001*
	Mar-25	No	17.6	71.4	8.8	10.5	45	6.77	161	13.54	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.19	*0.001*	0.059	*0.0001*	*0.001*
	Apr-25	Yes	11.9	65.4	9.7	10.9	49	6.93	183	7.27	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.19	*0.001*	0.036	*0.0001*	*0.001*
	May-25	No	4.9	70.3	-	9.7	6	7.21	15.8	5.62	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.18	*0.001*	0.021	*0.0001*	*0.001*
	Jun-25	No	5.9	84.9	-	8.9	-	8.07	-	13.6	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.25	*0.001*	0.01	*0.0001*	*0.001*

Parameter		TN (mg/L)	TP (mg/L)	Dissolved Ag (mg/L)	Dissolved Zn (mg/L)	Ammonia (mg/L)	Nitrogen Oxides (mg/L)	Reactive Phosphorous (mg/L)	Total Hardness (mg/L) (CaCO3)	Total Kjedahl Nitrogen (mg/L) (TKN)	TDS (mg/L)	TSS (mg/L)	Total Al (mg/L)	Total As (mg/L)	Total Cd (mg/L)	Total Cr (mg/L)	Total Cu (mg/L)	Total Pb (mg/L)	Total Mn (mg/L)	Total Ni (mg/L)	Total Ag (mg/L)	Total Zn (mg/L)	Total Fe (mg/L)	Total Hg (mg/L)
YORKERS CREEK CATCHMENT																								
DGV		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
LOR		0.1	0.01	0.001	0.005	0.010	0.010	0.01	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.02	1	0.1	30	3												
June - Nov SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.02	7	0.2	10	0.2												
YK-IS	Mar-24	*0.1*	*0.01*	*0.00001*	*0.004*	0.050	0.05	*0.005*	*1*	*0.1*	21	*1*												
	Apr-24	0.3	0.02	*0.001*	*0.005*	*0.010*	0.06	-	12	*0.06*	-	13	0.15	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.024	*0.001*	*0.001*	*0.005*	0.52	*0.0001*
	May-24	0.2	0.03	*0.001*	*0.005*	*0.010*	0.05	*0.01*	12	*0.1*	48	5	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.014	*0.001*	*0.001*	*0.005*	0.16	*0.0001*
	Jun-24	0.3	0.03	*0.001*	*0.005*	*0.010*	0.06	*0.01*	9	0.2	19	6	0.32	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.014	*0.001*	*0.001*	*0.005*	0.42	*0.0001*
	Jul-24	0.3	0.07	*0.001*	0.009	*0.010*	*0.01*	*0.01*	9	0.3	52	7	0.8	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.015	*0.001*	*0.001*	*0.005*	0.62	*0.0001*
	Aug-24	0.4	0.04	*0.001*	*0.005*	0.030	*0.01*	*0.01*	9	0.4	62	15	1.22	*0.001*	*0.0001*	0.003	*0.001*	*0.001*	0.026	*0.001*	*0.001*	*0.005*	0.99	*0.0001*
	Sep-24	0.2	0.02	*0.001*	*0.005*	0.020	*0.01*	*0.01*	9	0.2	26	4	0.16	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.012	*0.001*	*0.001*	*0.005*	0.26	*0.0001*
	Oct-24	0.2	0.06	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	21	0.2	40	4	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.23	*0.0001*
	Nov-24	*0.1*	0.04	*0.001*	0.01	*0.010*	*0.01*	*0.01*	9	*0.1*	42	3	0.31	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.022	*0.001*	*0.001*	*0.005*	0.39	*0.0001*
	Dec-24	0.2	0.03	*0.001*	*0.005*	0.020	0.02	*0.01*	12	0.2	40	6	0.59	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.026	*0.001*	*0.001*	*0.005*	0.55	*0.0001*
	Jan-25	0.2	0.02	*0.001*	0.008	0.020	*0.01*	0.02	14	0.2	59	3	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.055	*0.001*	*0.001*	*0.005*	0.61	*0.0001*
	Feb-25	0.4	0.07	*0.001*	*0.005*	0.020	0.02	*0.01*	12	0.4	42	5	1.44	*0.001*	*0.0001*	0.002	*0.001*	*0.001*	0.048	*0.001*	*0.001*	*0.005*	1.31	*0.0001*
	Mar-25	0.2	0.03	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	7	0.2	41	13	0.25	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.054	*0.001*	*0.001*	*0.005*	0.74	*0.0001*
	Apr-25	0.2	0.02	*0.001*	*0.005*	0.020	0.04	*0.01*	21	0.2	37	4	0.15	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.095	*0.001*	*0.001*	*0.005*	0.88	*0.0001*
	May-25	*0.1*	0.03	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	14	*0.1*	33	*1*	0.15	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.027	*0.001*	*0.001*	*0.005*	0.58	*0.0001*
	Jun-25	0.2	0.04	*0.001*	*0.005*	0.020	*0.01*	*0.01*	12	0.2	90	5	0.28	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.011	*0.001*	*0.001*	*0.005*	0.38	*0.0001*

	Reference Site exceeds SSGV
	Impact Site Result exceeds SSGV or DGV
italics	Result exceeds the Limit of Reporting

Appendix D: Calibration Certificate



HK CALIBRATION TECHNOLOGIES PTY LTD

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Email: info@hkcalibrations.com.au
Web: www.hkcalibrations.com.au

CALIBRATION CERTIFICATE

REPORT NO: 177471-1

CLIENT:	CLIENT ADDRESS:
UGL PTY LIMITED -AUBURN	3 GEORGE YOUNG STREET AUBURN NSW 2144

INSTRUMENT DATA

A	EQUIPMENT TYPE	WATER QUALITY METER
B	MAKE	YSI
C	MODEL	PRO DSS
D	SERIAL NUMBER	23H104391
E	ASSET NUMBER	NOT FOUND
F	DESCRIPTION OF TYPE	DIGITAL
G	RANGE	VARIOUS
H	RATED ACCURACY / TOLERANCE OF U.U.T. (±)	AS FOUND

CALIBRATION DATE

I	DATE OF CALIBRATION	25/10/2024
J	RECOMMENDED DUE DATE	25/10/2025

CALIBRATION RESULT

The results of the tests, calibrations, and /or measurements included in this document are traceable to Australian/national standards.

K	READING OF U.U.T.	SEE PAGE 2
L	READING OF MASTER INSTRUMENT	SEE PAGE 2
M	ADJUSTMENT	NIL
N	REPAIR	NIL
O	SERVICEABILITY/FUNCTIONALITY	ACCEPTABLE
P	TECHNICIAN COMMENT	THIS INSTRUMENT WAS FOUND TO BE FUNCTIONING AS INDICATED BY OUR FINDINGS WITHIN THIS REPORT.

The applicable measurement uncertainties are calculated in accordance with the method described in the ISO Guide to the Expression of Uncertainty in Measurement, with confidence level of 95% using a coverage factor k=2.

CALIBRATION PROCEDURE AND TRACEABILITY

Q	LOCATION OF EQUIPMENT	TEST AND MEASUREMENT LAB
R	CALIBRATED BY	CHINMAY
S	CALIBRATION ENVIRONMENT	TEMPERATURE: 23.0 ± 2°C AVERAGE HUMIDITY: 45% ± 10% RH
T	CALIBRATION PROCEDURE	HKC SOP 11-28-V8
U	REFERENCE CALIBRATION STANDARD USED:- HKCT'S PRECISION INSTRUMENT TRACEABLE TO AUSTRALIAN NATIONAL STANDARDS VIA A NATA CERTIFIED CALIBRATION CERTIFICATE:-	*MODEL: 5502E,34465A* *ASSET: HKC001A,HKC001C* *SERIAL NO: 2371801,MY90083003* *NATA REPORT NO: A43641EA, 2023004159*