MARCH 2025

MONTHLY CONSTRUCTION WATER QUALITY MONITORING REPORT

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

CONTENTS

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FIGURES

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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

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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

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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.

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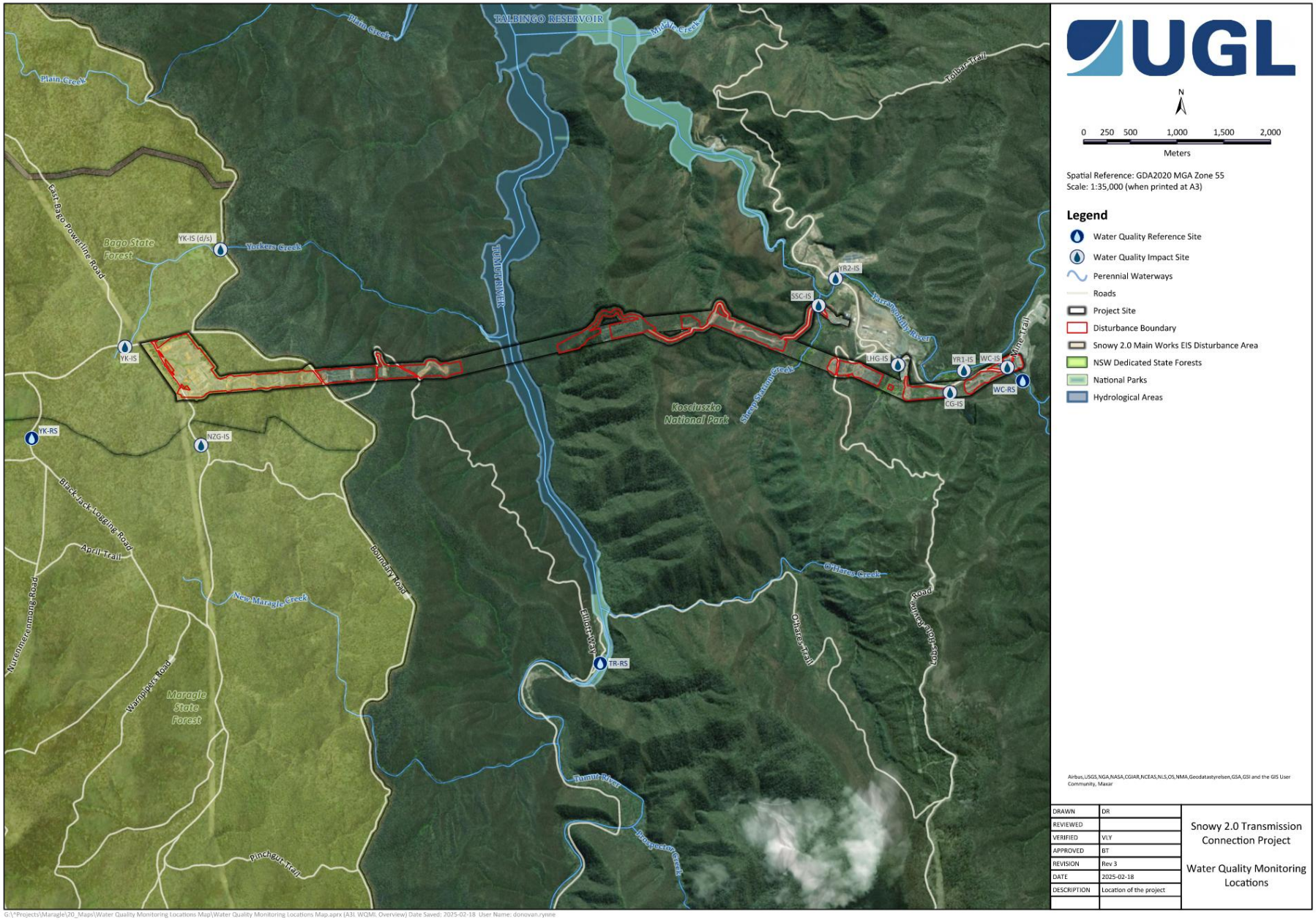

FIGURE 1 LOCALITY OF THE PROJECT AND SWQ MONITORING LOCATIONS

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.

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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

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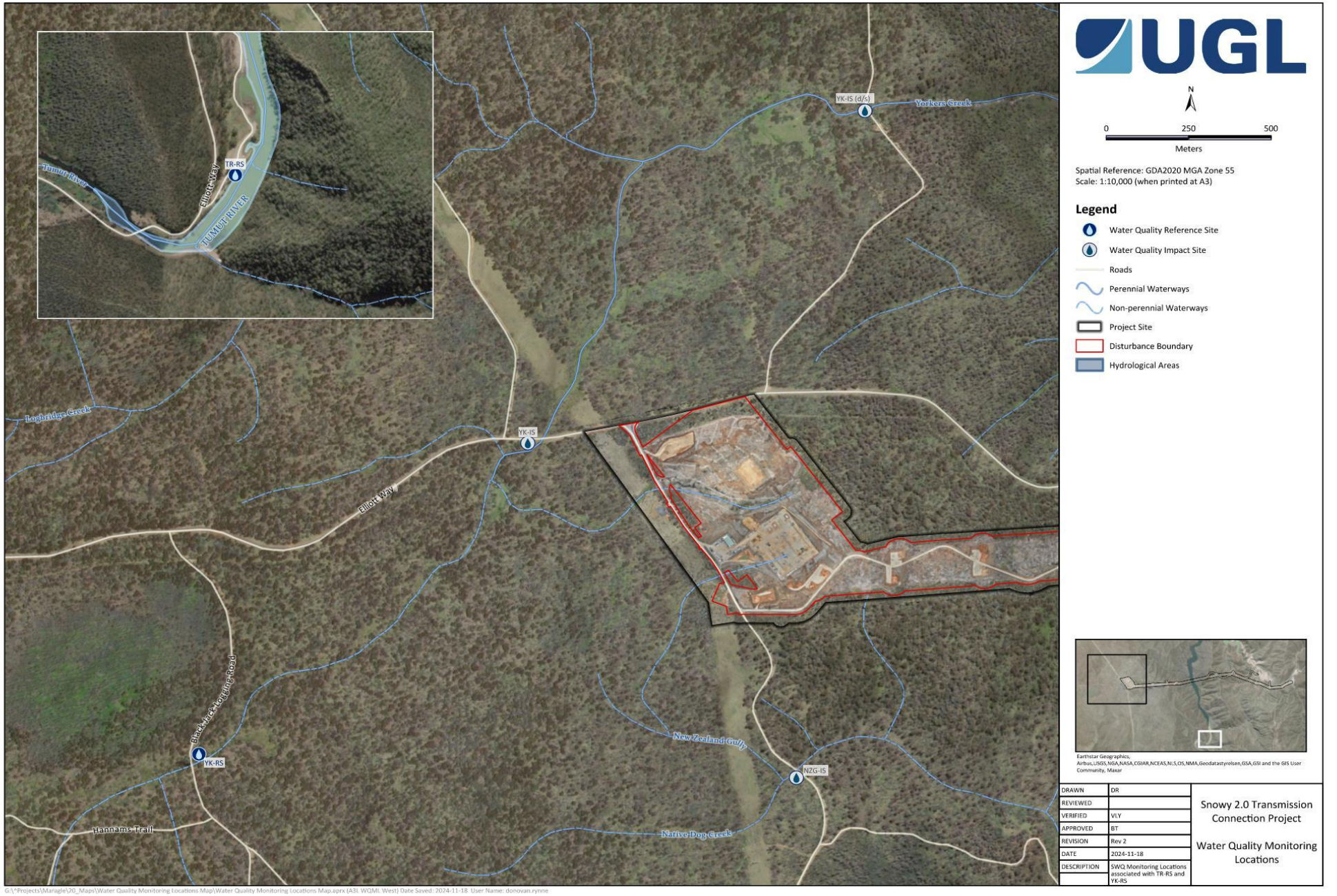

FIGURE 2 WATER QUALITY MONITORING LOCATIONS ASSOCIATED WITH REFERENCE SITE YR-RS AND TR-RS IN RELATION TO THE PROJECT

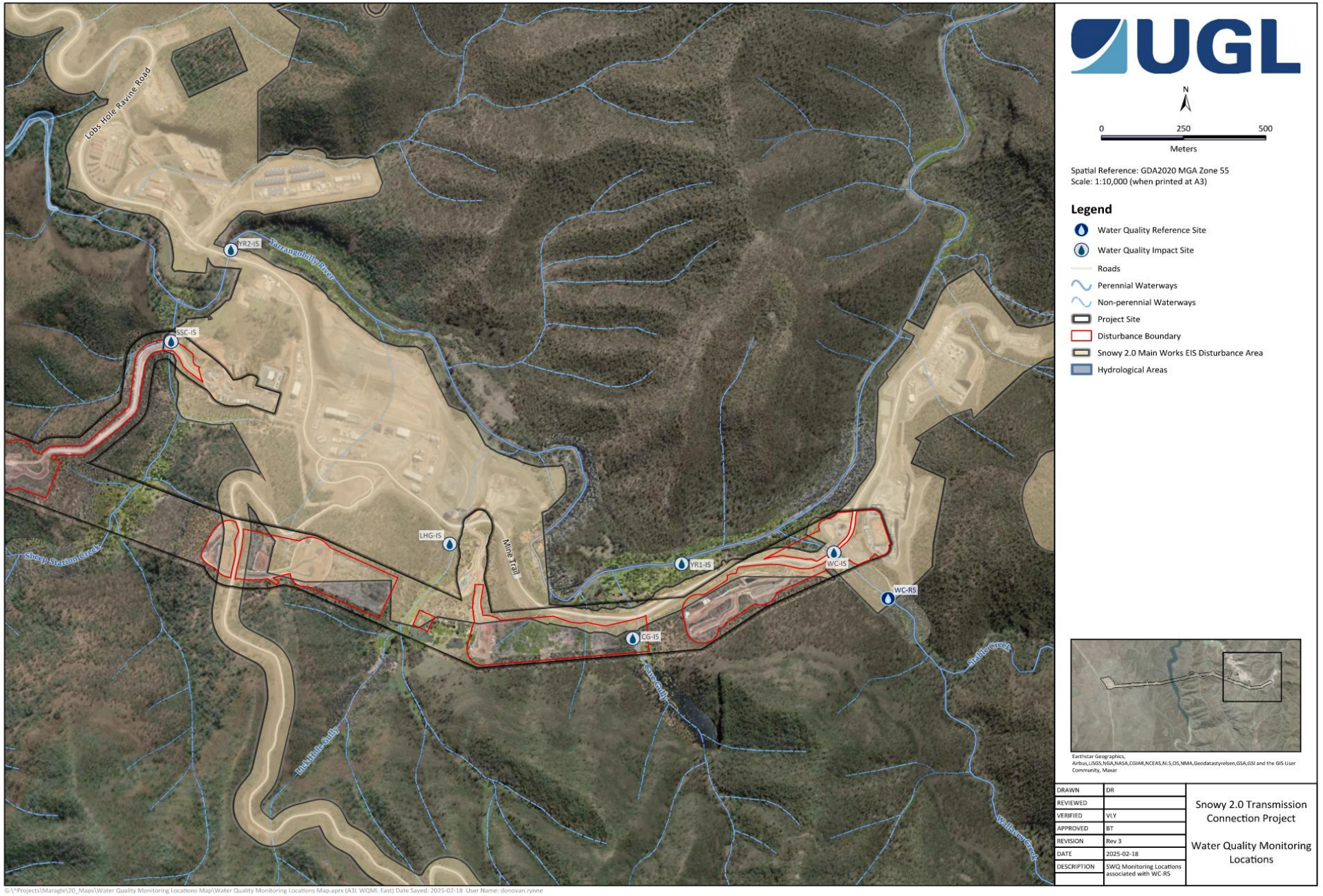

FIGURE 3 WATER QUALITY MONITORING LOCATIONS ASSOCIATED WITH REFERENCE SITE WC-RS IN RELATION TO THE PROJECT

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	°C*	-	-	-	-	-	-	-
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

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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

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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*

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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).

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5 MARCH 2025 MONITORING

SW sampling was undertaken at 10 monitoring locations from 19 March 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.

5.1 Observations

Field observations during sampling are summarised in Table 3.

Table 3 Field observations during sampling

FIELD OBSERVATIONS		
Date	19 March 2025	
Weather	The weather forecast for 19 March was 14.7 degrees Celsius (°C) with 60 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 42.4 mm of rainfall across 10 to 11 February. At the time of sampling, the weather was sunny with cloud cover.	
ID	**Observations**	**Photo**
WC-RS	Low water level, high flow Rocky and eroded banks including exposed roots from a large tree Presence of algae Presence of oily sheen on water surface Clear water Riparian vegetation consisted of groundcover, shrubs and trees Moderate density including of Blackberry (*Rubus fruticosus*)	

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FIELD OBSERVATIONS

Date	19 March 2025
Weather	The weather forecast for 19 March was 14.7 degrees Celsius (°C) with 60 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 42.4 mm of rainfall across 10 to 11 February. At the time of sampling, the weather was sunny with cloud cover.

ID	Observations	Photo
WC-IS	Low volume with high flow rate Presence of vegetative detritus Clear 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	
YR1-IS	Clear water Low volume with high flow rate Minimal vegetative detritus High 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	

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FIELD OBSERVATIONS

Date	19 March 2025	
Weather	The weather forecast for 19 March was 14.7 degrees Celsius (°C) with 60 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 42.4 mm of rainfall across 10 to 11 February. At the time of sampling, the weather was sunny with cloud cover.	
ID	**Observations**	**Photo**
	Presence of aquatic invertebrate, vegetation and algae	
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 with brown/milky tinge and odour Overgrown vegetation, predominantly groundcover Low volume with moderate flow rate Presence of silt and grass seed husks on bed Sheen from organic decomposition on surface of water Presence of aquatic invertebrate, vegetation and algae	
YR2-IS	Presence of aquatic invertebrates, vegetation and algae Clear water Rocky bed and banks Low volume with moderate flow rate Riparian vegetation predominantly groundcover High weed density including Blackberry (*Rubus fruticosus*) Presence of vegetative detritus Monitoring location is adjacent to bridge and electrical transmission tower on top of rocky cliff and Snowy 2.0 laydown area	

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FIELD OBSERVATIONS

Date	19 March 2025
Weather	The weather forecast for 19 March was 14.7 degrees Celsius (°C) with 60 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 42.4 mm of rainfall across 10 to 11 February. At the time of sampling, the weather was sunny with cloud cover.

ID	Observations	Photo
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 High volume with minimal flow rate Riparian vegetation consisted of groundcover and trees Presence of landslips High presence of vegetative detritus	

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FIELD OBSERVATIONS

Date	19 March 2025
Weather	The weather forecast for 19 March was 14.7 degrees Celsius (°C) with 60 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 42.4 mm of rainfall across 10 to 11 February. At the time of sampling, the weather was sunny with cloud cover.

ID	Observations	Photo
YK-RS	Presence of aquatic invertebrate Low weed density including Blackberry (*Rubus fruticosus*) Eroded banks and sandy bed with mica Riparian vegetation consisted of groundcover and trees Murky water with brown tinge Monitoring location is adjacent to publicly accessible four wheel drive (4WD) track Presence of kangaroo scats Vegetative detritus in water Low volume with low flow rate Presence of hoof marks and burrows	
YK-IS (D/S)	Presence of algae, water beetles, invertebrate, aquatic vegetation Clear water with slight yellow and brown tinge Vegetative detritus in water Potential burrows in banks Riparian vegetation consisted of groundcover and trees Low weed density including Blackberry (*Rubus fruticosus*) Low volume with moderate flow rate Undermined banks and rocky and sandy bed with mica Monitoring location is adjacent to publicly accessible 4WD track	

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FIELD OBSERVATIONS

Date	19 March 2025
Weather	The weather forecast for 19 March was 14.7 degrees Celsius (°C) with 60 percent of 1-5 millimetres (mm) of rain. The previous 48 hours was cloudy and experienced a total of 42.4 mm of rainfall across 10 to 11 February. At the time of sampling, the weather was sunny with cloud cover.

ID	Observations	Photo
NZG-IS	Presence of aquatic invertebrate and vegetation Presence of organic detritus Overhanging vegetation Clear water with slight yellow tinge High 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 with mica Riparian vegetation consisted of groundcover and trees	
YK-IS	Murky water with slight brown tinge High presence of aquatic invertebrates and vegetation Low volume with low flow rate Eroded banks with mica in bed 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	

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5.2 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.

5.2.1 Key Physical and Chemical Parameters

See below for results of key physical and chemical parameters.

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5.2.1.1 Temperature

In March 2025, temperatures (°C) in the Yarrangobilly River catchment increased compared to February 2025, ranging from 14.7 °C to 22.2 °C, except for WC-RS and WC-IS which reduced 1.6°C and 0.2°C respectively, refer to Figure 4. In contrast, temperatures in Talbingo Reservoir decreased from 24.6°C in February 2025 to 21.3°C, refer to Figure 5. Temperatures in the Yorkers Creek catchment also reduced in March 2025, ranging from 13.6°C to 17.6°C, as illustrated in Figure 6.

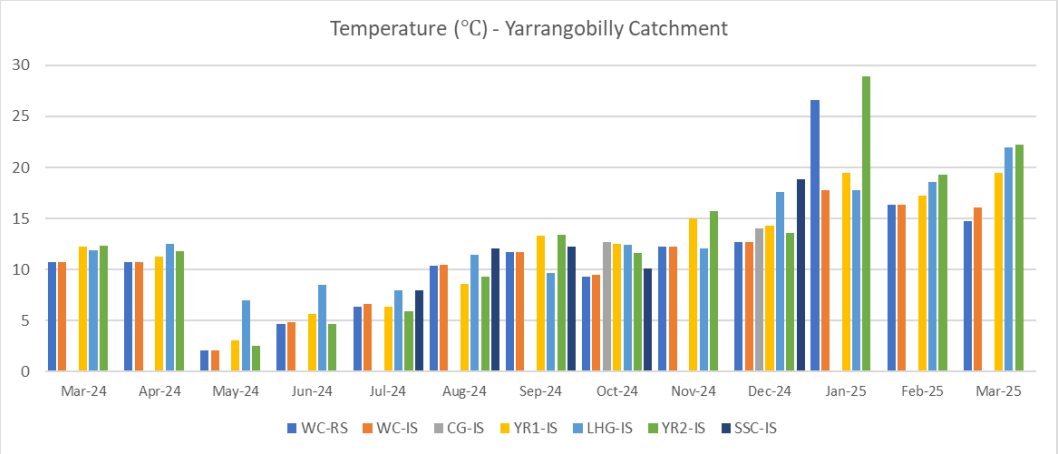

FIGURE 4 : TEMPERATURE FOR YARRANGOBILLY RIVER CATCHMENT

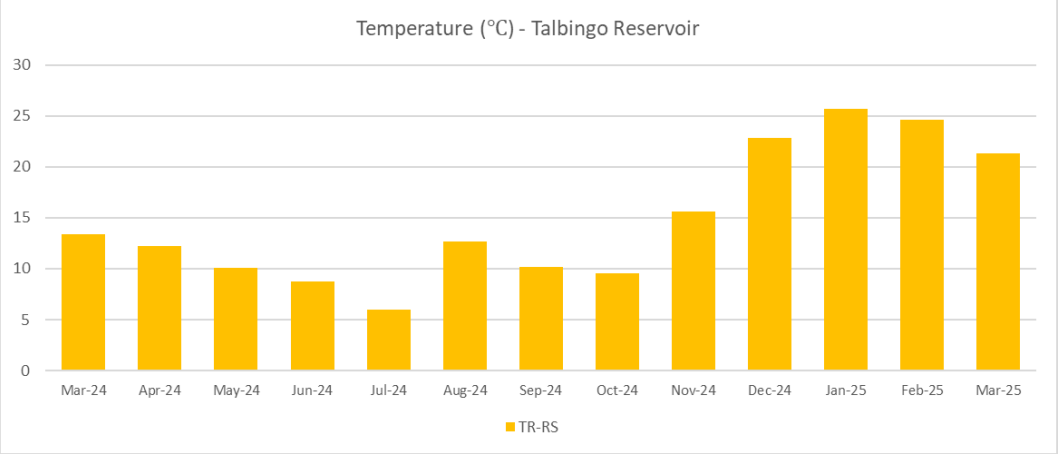

FIGURE 5: TEMPERATURE FOR TALBINGO RESERVOIR

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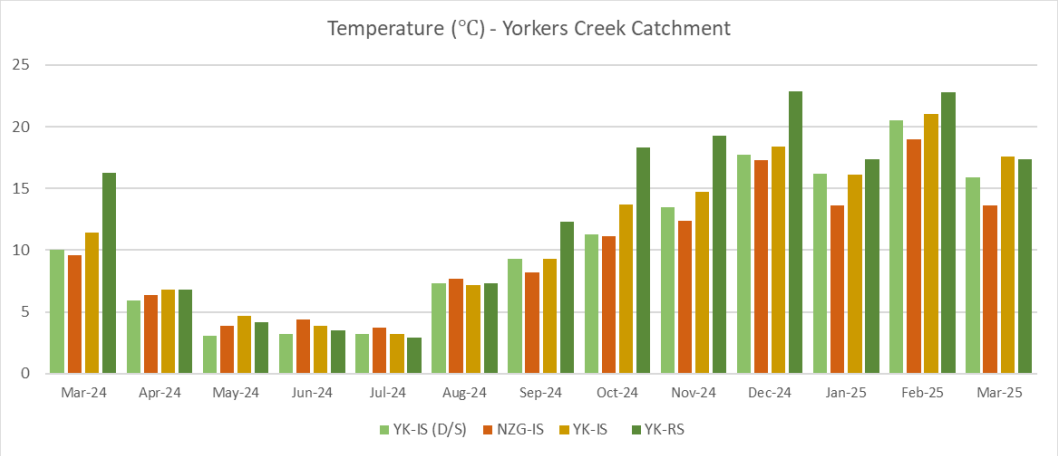

FIGURE 6: TEMPERATURE FOR YORKERS CREEK CATCHMENT

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5.2.1.2 pH

pH values exceeded the December to May SSGV (7.85) in March 2025 for majority of the Yarrangobilly River catchment sites except for LHG-IS, refer Figure 7. In contrast, Talbingo Reservoir was within the SSGV, refer to Figure 8. All Yorkers Creek catchment sites exceeded the December to May SSGV (6.79), except for YK-IS, and Figure 9.

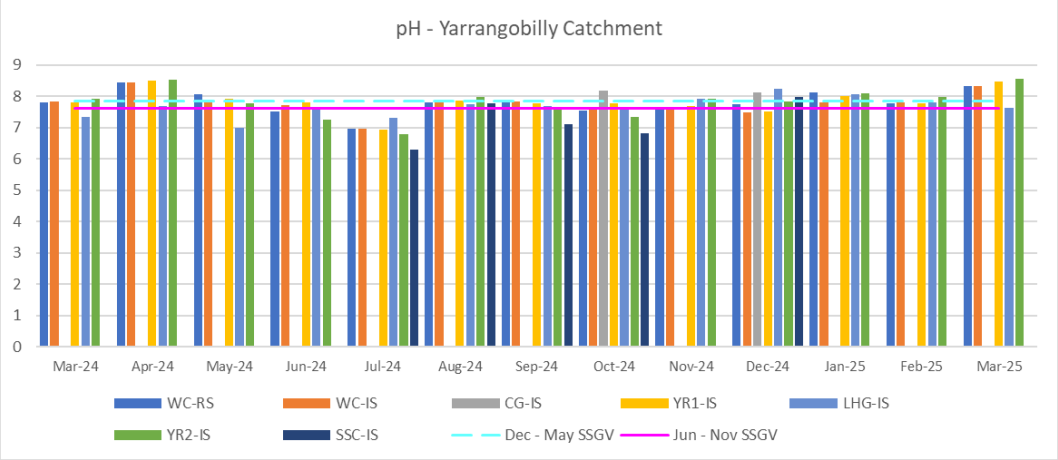

FIGURE 7: PH FOR YARRANGOBILLY RIVER CATCHMENT

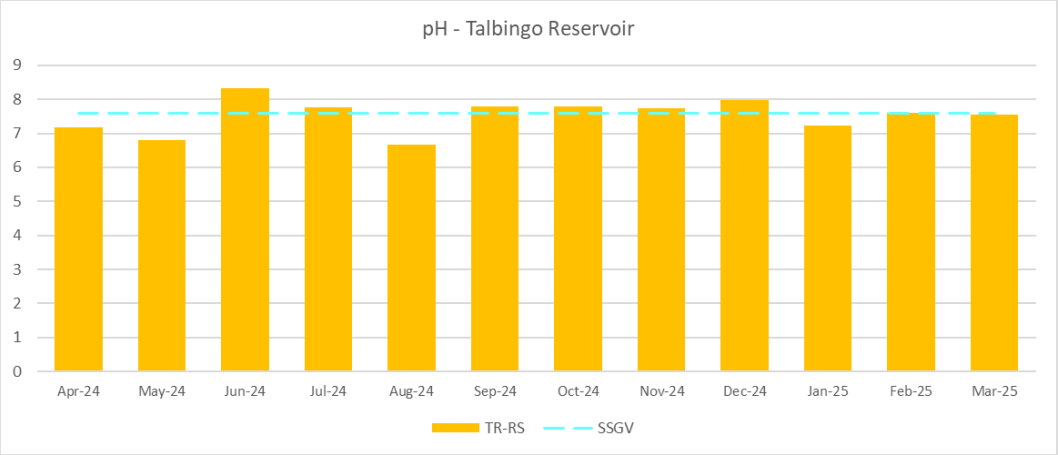

FIGURE 8: PH FOR TALBINGO RESERVOIR

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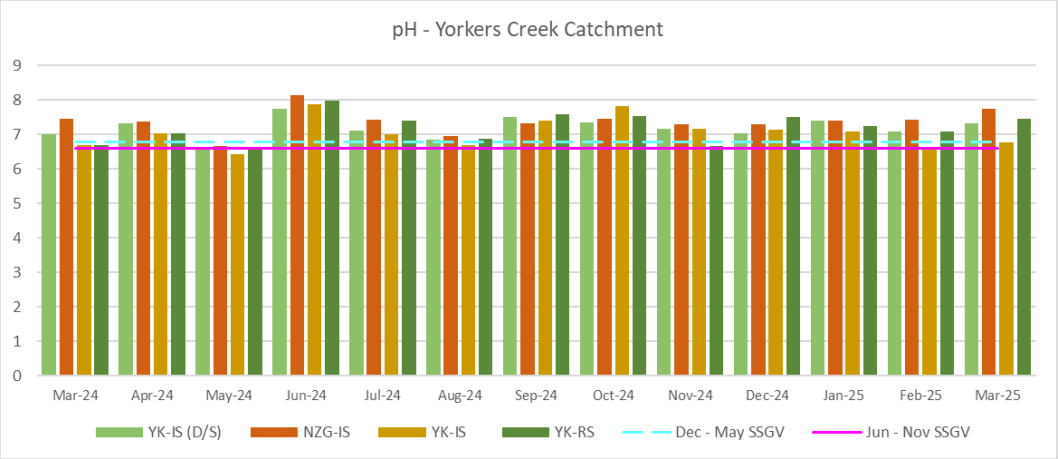

FIGURE 9: PH FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP

5.2.1.3 Dissolved Oxygen

March 2025 DO (%) levels in Yarrangobilly River catchment were below the December to May SSGV of 96.2%, except for YR1-IS and YR2-IS which were both greater than the SSGV , refer to Figure 10. All sites within the Yorkers Creek catchment and Talbingo Reservoir were below their respective SSGVs of 91.3% and 89.6%, refer Figure 11 and Figure 12.

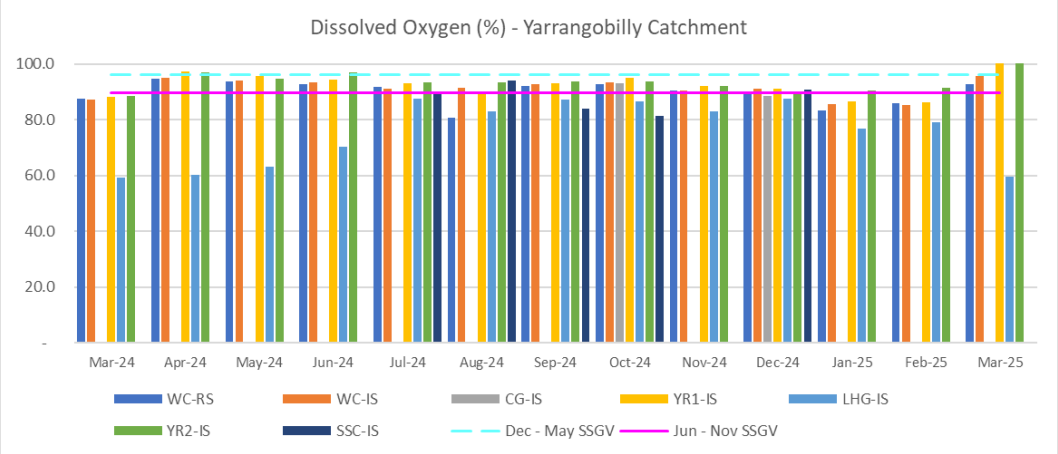

FIGURE 10: DO FOR YARRANGOBILLY RIVER CATCHMENT

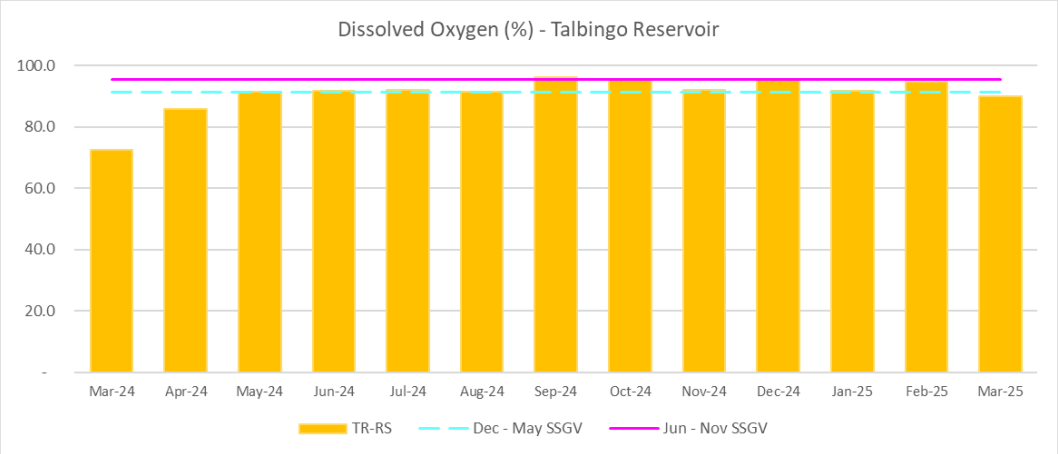

FIGURE 11: DO FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

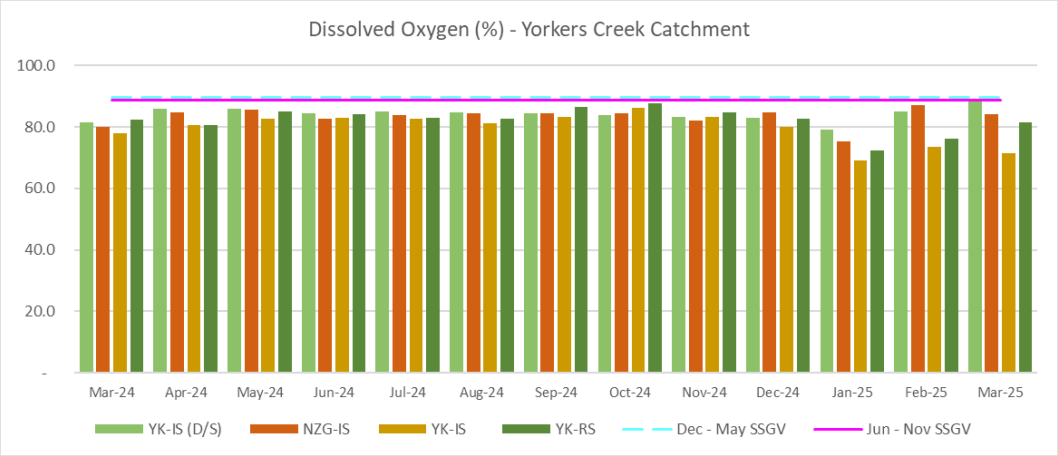

FIGURE 12: DO FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP

5.2.1.4 Specific Conductance

SPC (µS/cm) levels in the Yarrangobilly River catchment were predominantly within the December to May SSGV (115 µS/cm) except for LHG-IS which has always exceeded the SSGV, refer Figure 13. SPC levels were also within the respective SSGV for Talbingo Reservoir and Yorkers Creek catchment, refer Figure 14 and Figure 15.

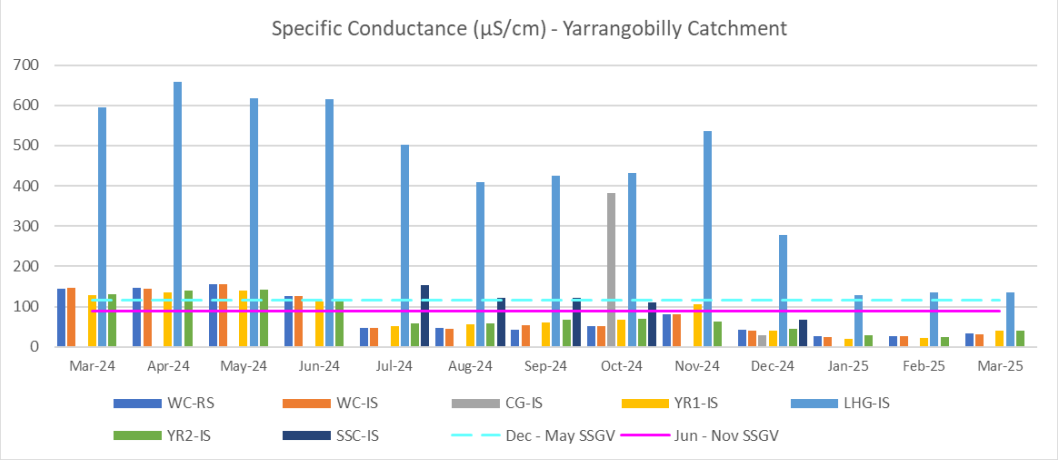

FIGURE 13: SPC FOR YARRANGOBILLY RIVER CATCHMENT

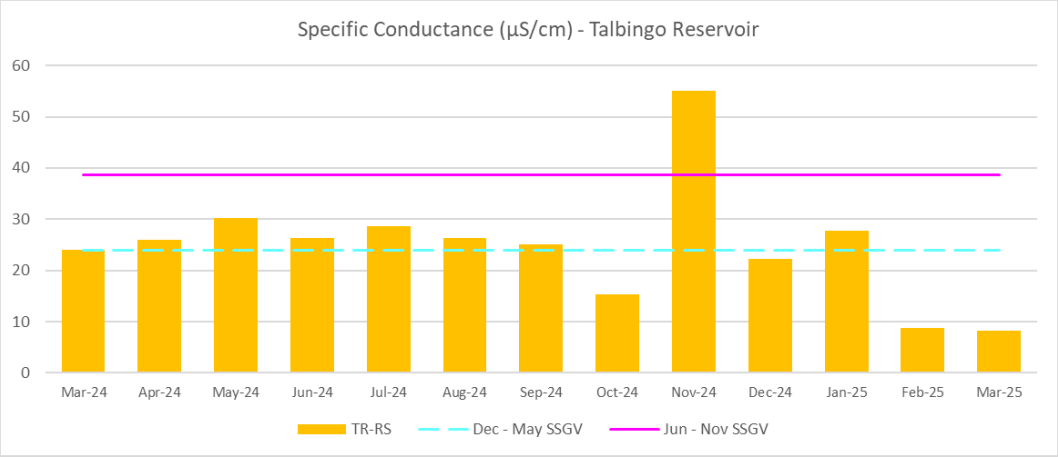

FIGURE 14: SPC FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

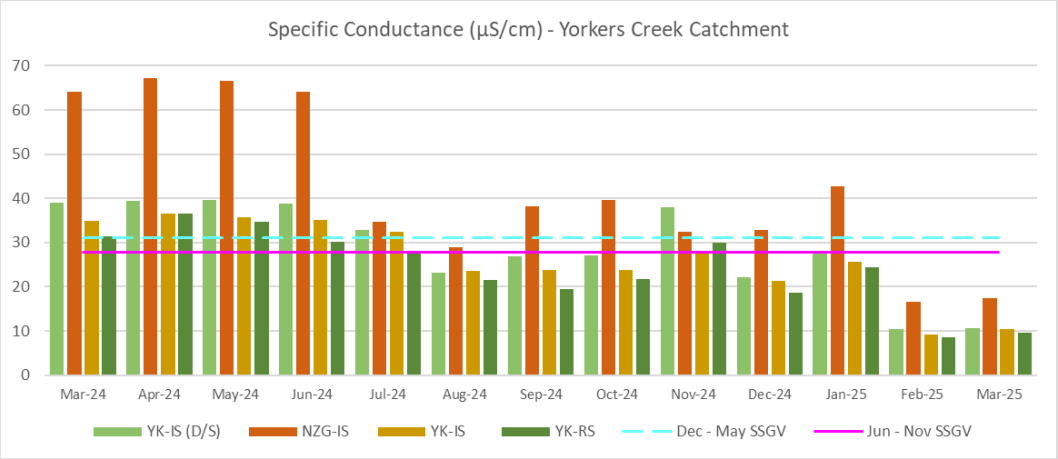

FIGURE 15: SPC FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP
CIMIC

5.2.1.5 Electrical Conductivity

Similar to previous monitoring periods, EC (µS/cm) values all exceeded the December to May SSGV of each catchment in March 2025, refer to Figure 16 to Figure 18.

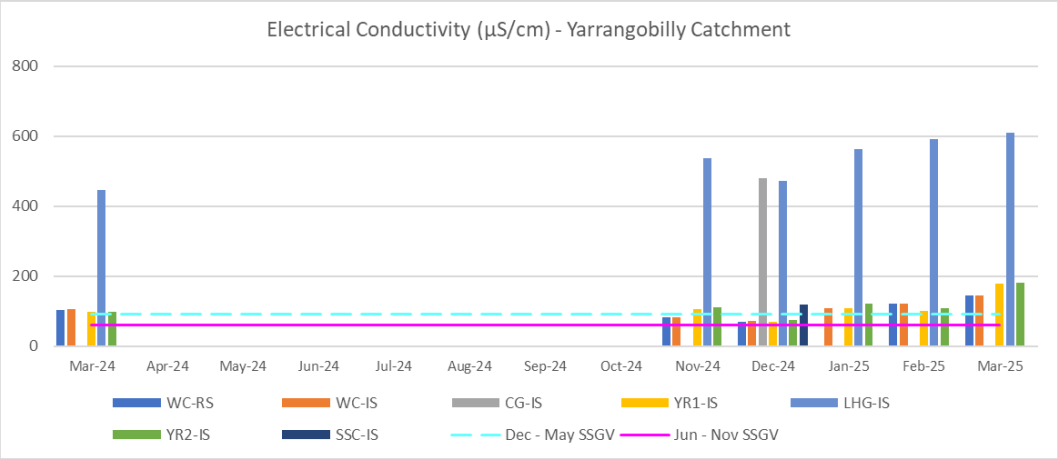

FIGURE 16: EC FOR YARRANGOBILLY RIVER CATCHMENT

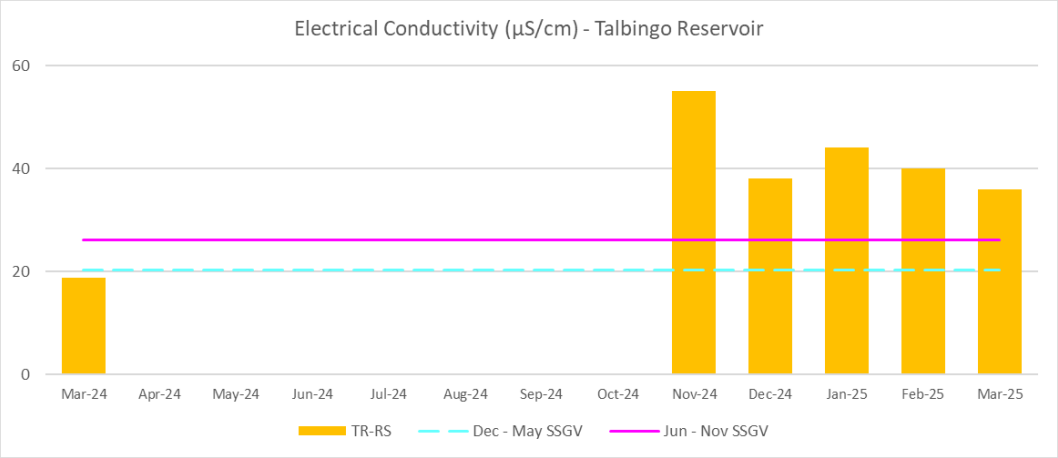

FIGURE 17: EC FOR TALBINGO RESERVOIR

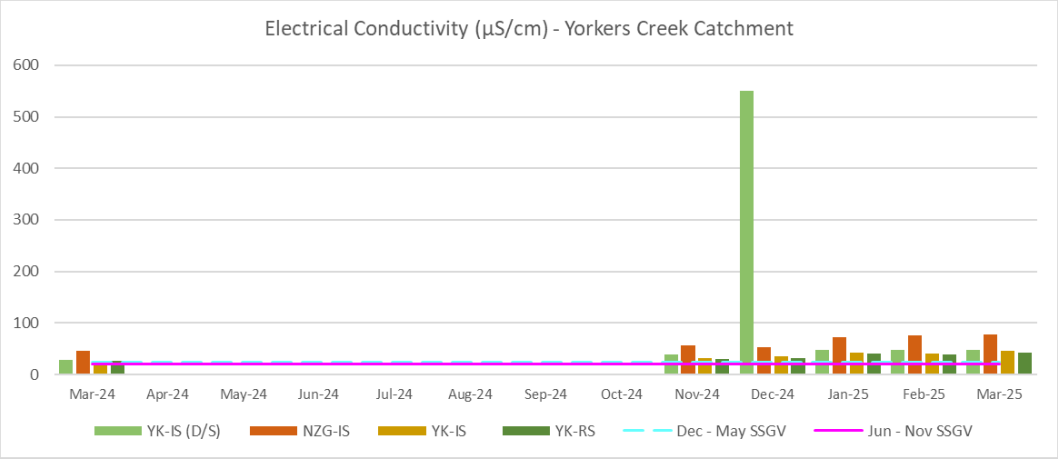

FIGURE 18: EC FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.6 Turbidity

Turbidity (NTU) levels exceeded the December to May SSGV at all reference sites and majority of the impact sites across all three catchments, refer Figure 19 to Figure 21. The only sites within the SSGV were YK-IS (D/S) and NZG-IS of the Yorkers Creek catchment which had a December to May SSGV of 9 NTU.

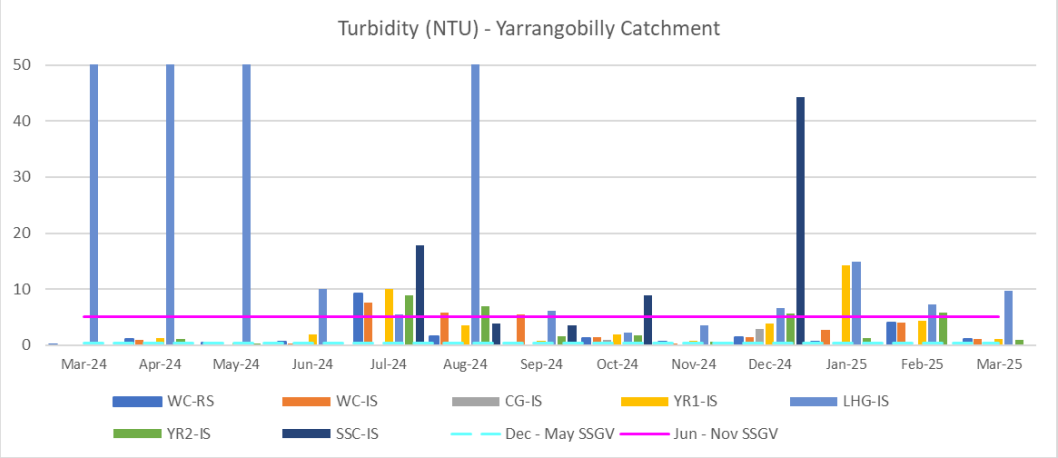

FIGURE 19: TURBIDITY FOR YARRANGOBILLY RIVER CATCHMENT

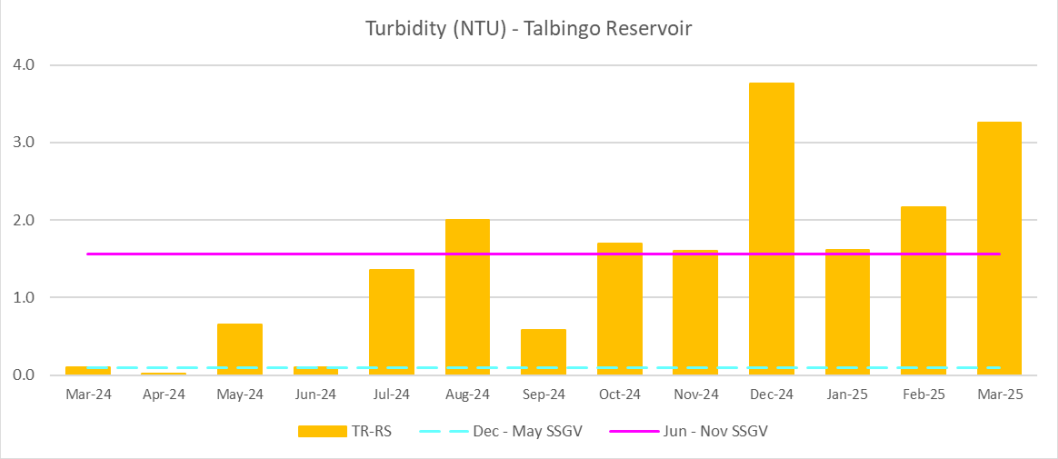

FIGURE 20: TURBIDITY FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

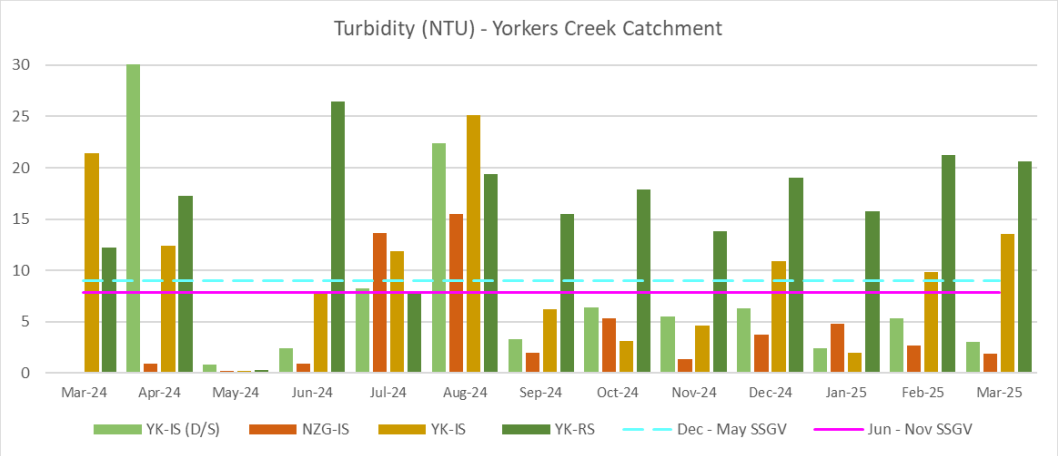

FIGURE 21: TURBIDITY FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.7 Total Suspended Solids

In the Yarrangobilly River catchment, all sites were below the LOR, except for LGH-IS which exceeded the December to May SSGV (0.2 mg/L), refer to Figure 22. Talbingo Reservoir was also below the LOR, refer to Figure 23. In Yorkers Creek catchment, YK-RS and YK-IS both exceeded the December to May SSGV (3 mg/L) and NZG-IS and YK-IS(D/S) were below the LOR, refer to Figure 24.

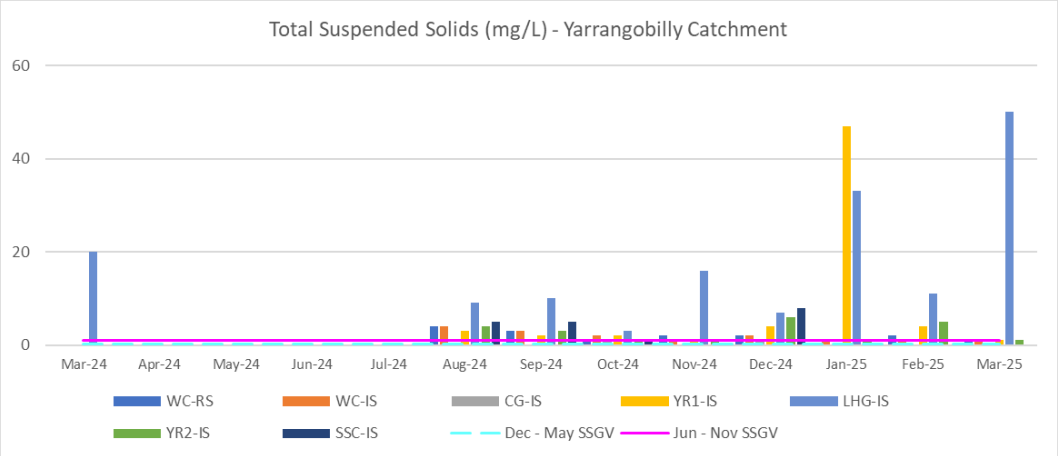

FIGURE 22: TSS FOR YARRANGOBILLY RIVER CATCHMENT

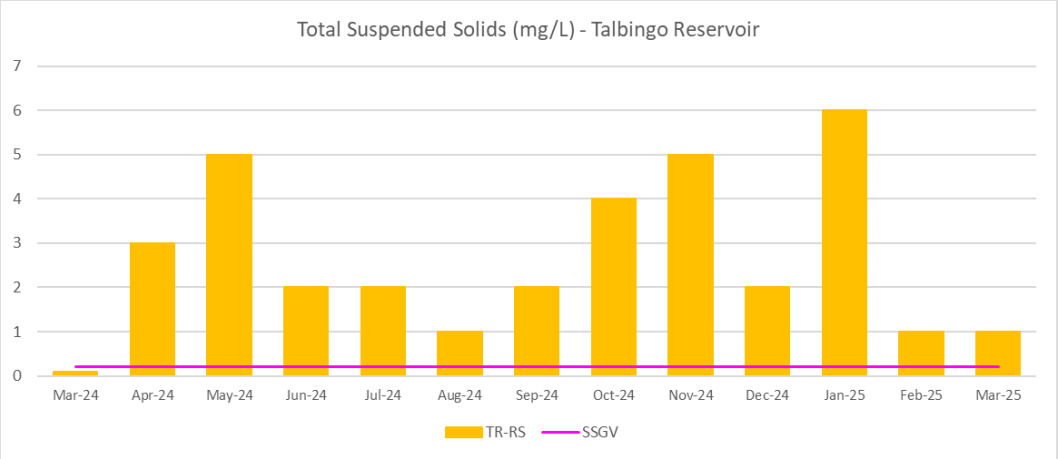

FIGURE 23: TSS FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

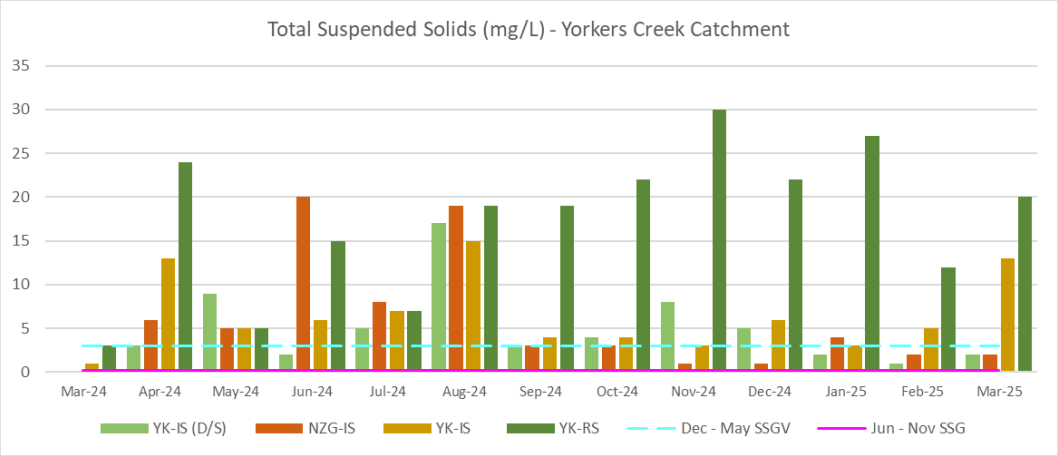

FIGURE 24: TSS FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.8 Total Dissolved Solids

LHG-IS in Yarrangobilly River catchment measured significantly higher than its December to May SSGV at 372 mg/L, refer to Figure 25. YR-RS in Yorkers Creek catchment was the only site to fall within its December to May SSGV (30 mg/L). Figure 26Figure 27.

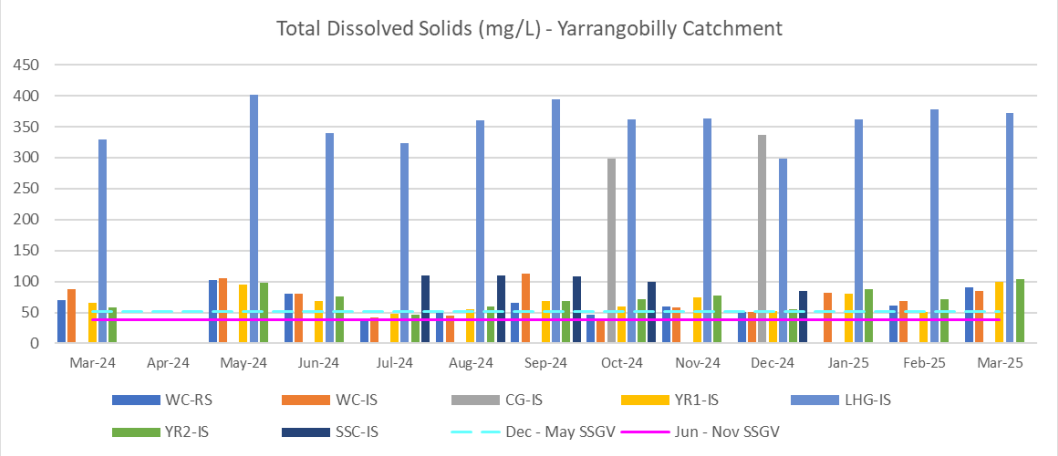

FIGURE 25 TDS FOR YARRANGOBILLY RIVER CATCHMENT

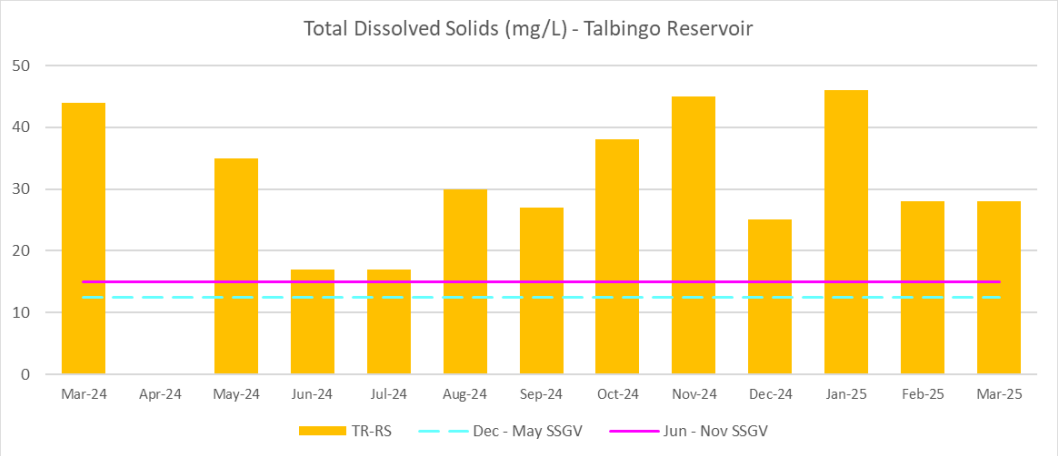

FIGURE 26 TDS FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

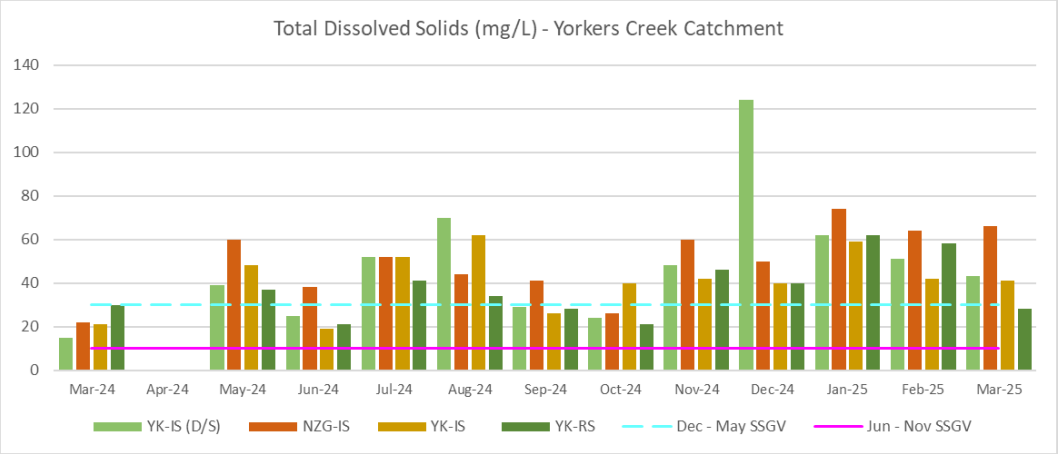

FIGURE 27 TDS FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.9 Redox

The December to May SSGV for redox (mV) was exceeded at all sites across all three catchments, refer to Figure 28 to Figure 30.

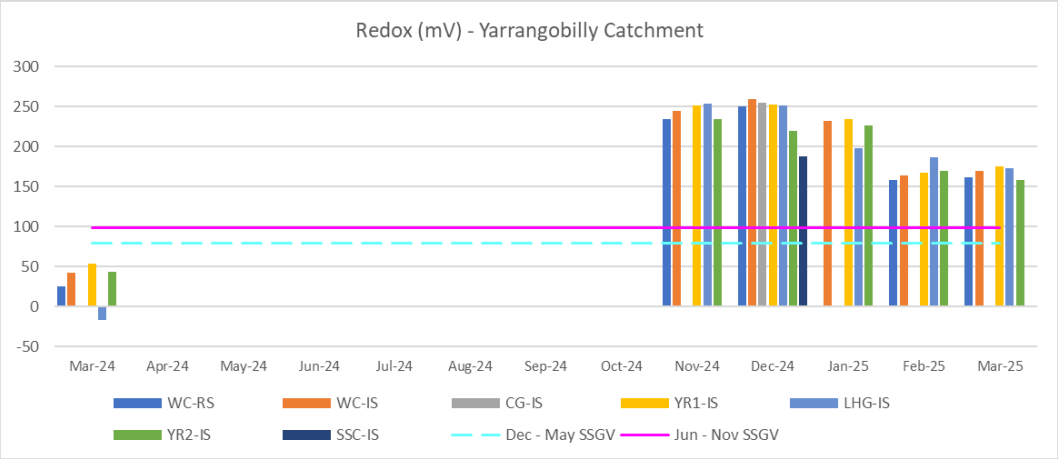

FIGURE 28: REDOX FOR YARRANGOBILLY RIVER CATCHMENT

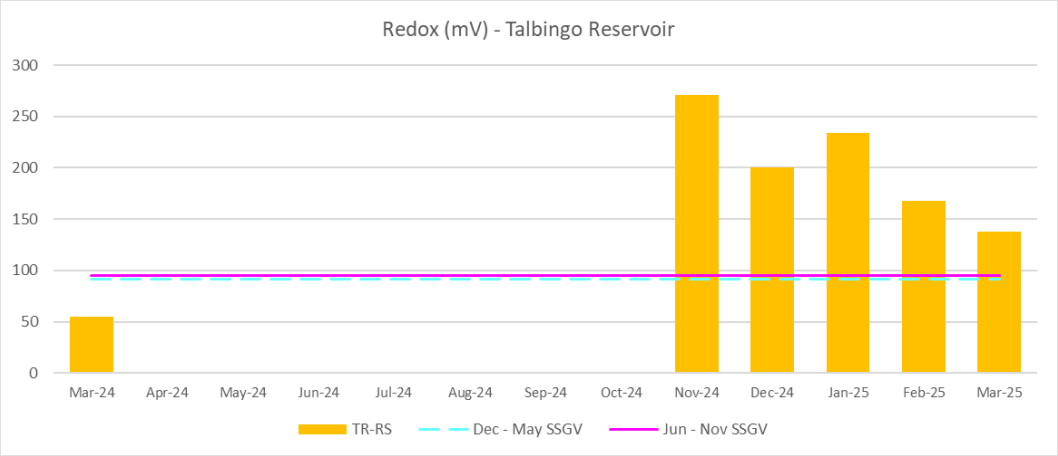

FIGURE 29: REDOX FOR TALBINGO RESERVOIR

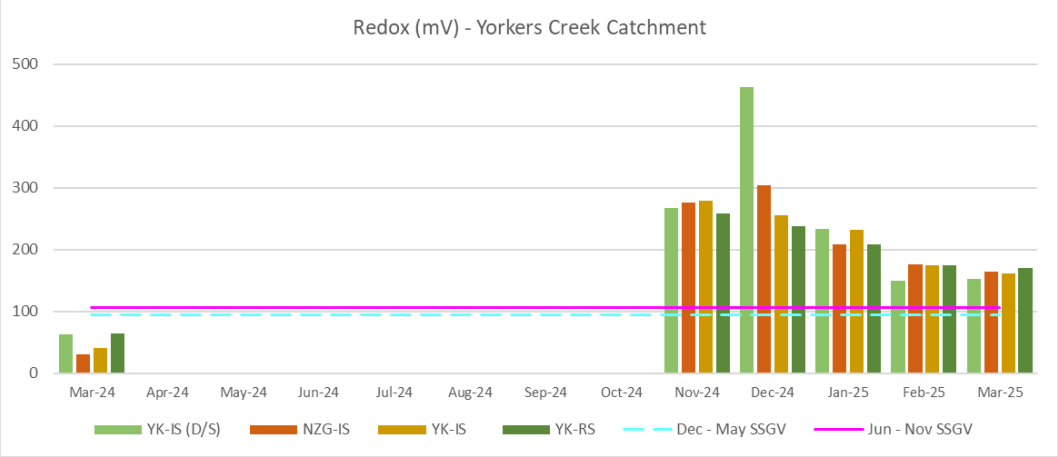

FIGURE 30: REDOX FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.10 Nitrogen Oxides

Nitrogen oxides (mg/L) levels were within the December to May SSGV (0.015 mg/L) at LGH-IS in Yarrangobilly River catchment and at YK-IS(D/S) and NZG-IS in Yorkers Creek catchment. All other sites were below the LOR, refer to Figure 31 to Figure 33.

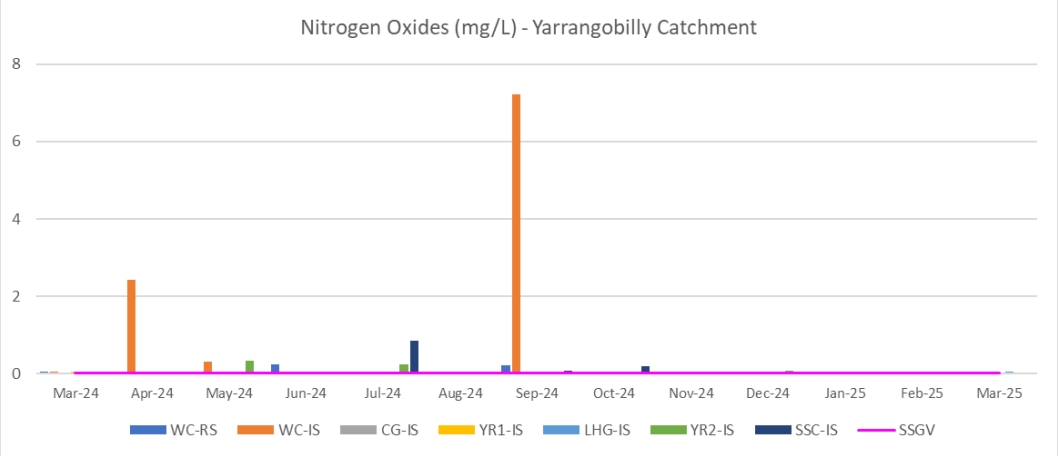

FIGURE 31: NITROGEN OXIDES FOR YARRANGOBILLY RIVER CATCHMENT

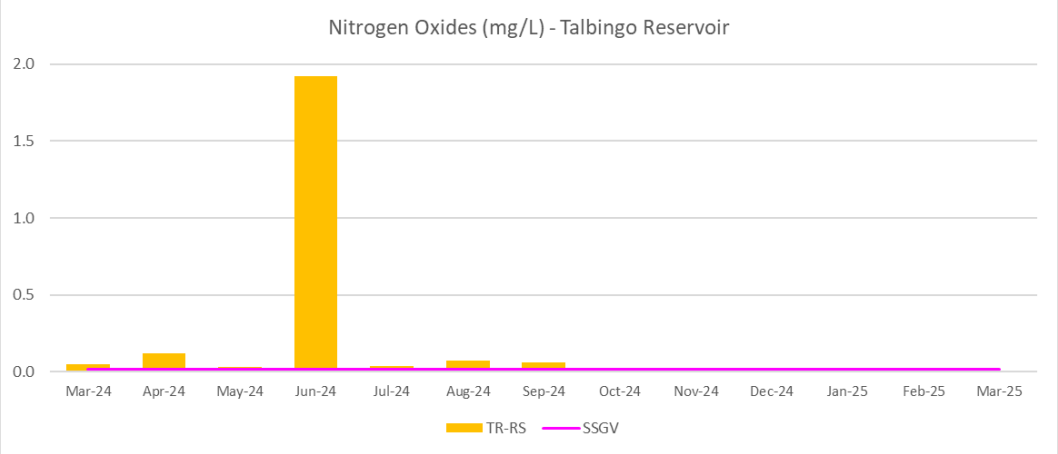

FIGURE 32: NITROGEN OXIDES FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

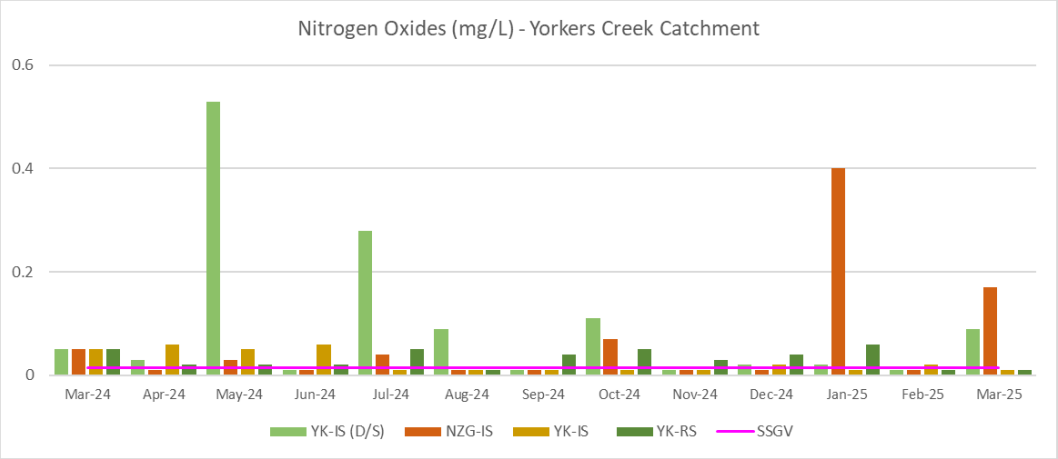

FIGURE 33: NITROGEN OXIDES FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.11 Ammonia

Ammonia (mg/L) levels exceeded the December to May SSGV (0.013 mg/L) at all sites across the three catchments except for YR2-IS in the Yarrangobilly River catchment, TR-RS in Talbingo Reservoir and NZG-IS and YK-IS in Yorkers Creek catchment, which were below the LOR, refer to Figure 34 to Figure 36.

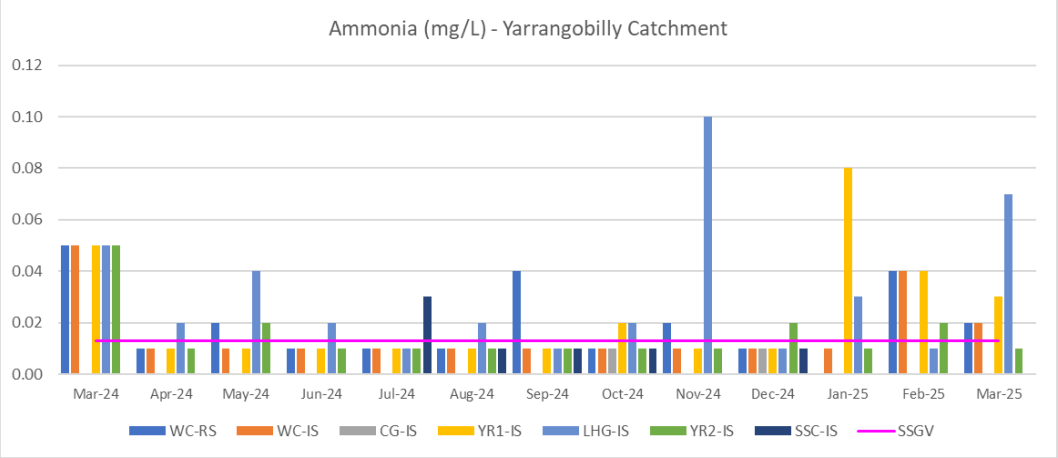

FIGURE 34: AMMONIA FOR YARRANGOBILLY RIVER CATCHMENT

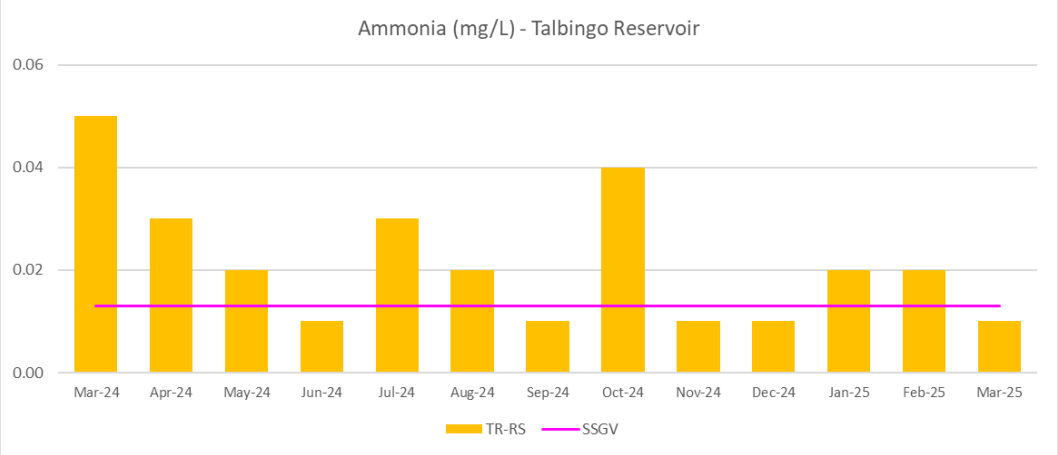

FIGURE 35: AMMONIA FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

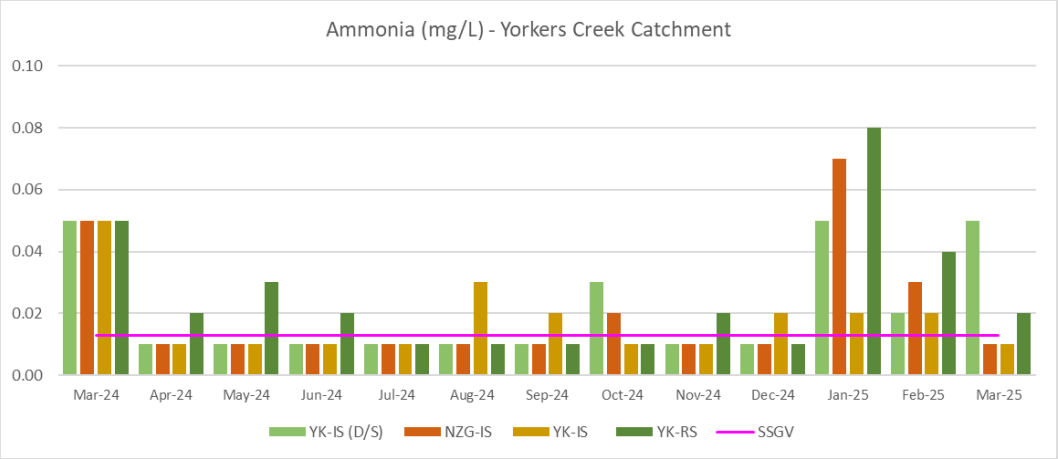

FIGURE 36: AMMONIA FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.12 Cyanide

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

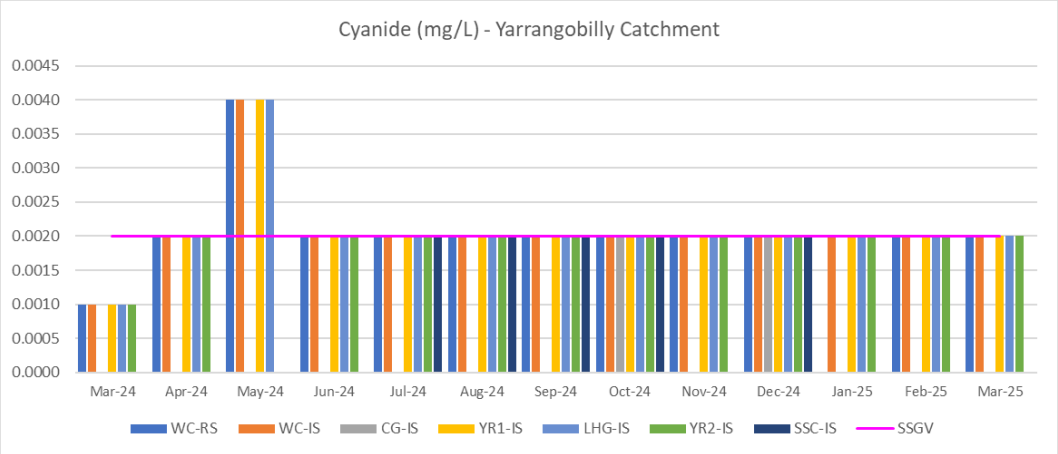

FIGURE 37: CYANIDE FOR YARRANGOBILLY RIVER CATCHMENT

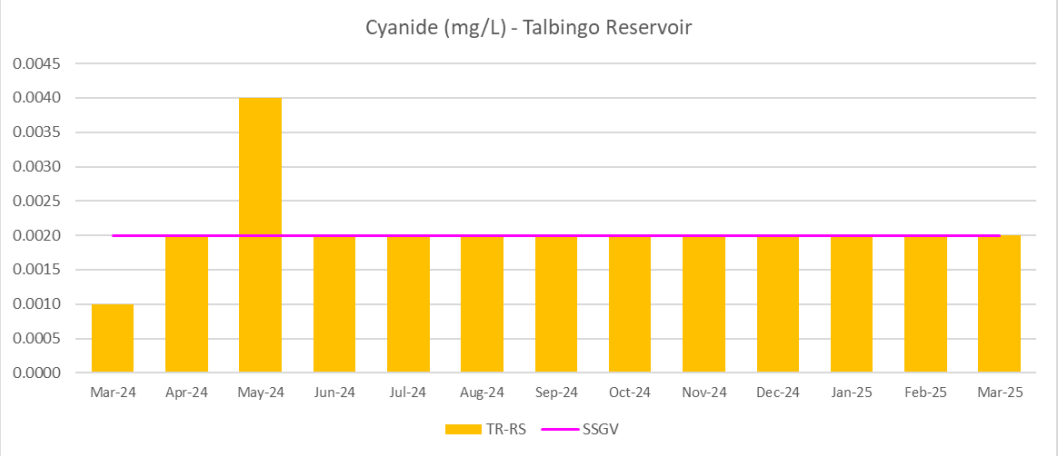

FIGURE 38: CYANIDE FOR TALBINGO RESERVOIR

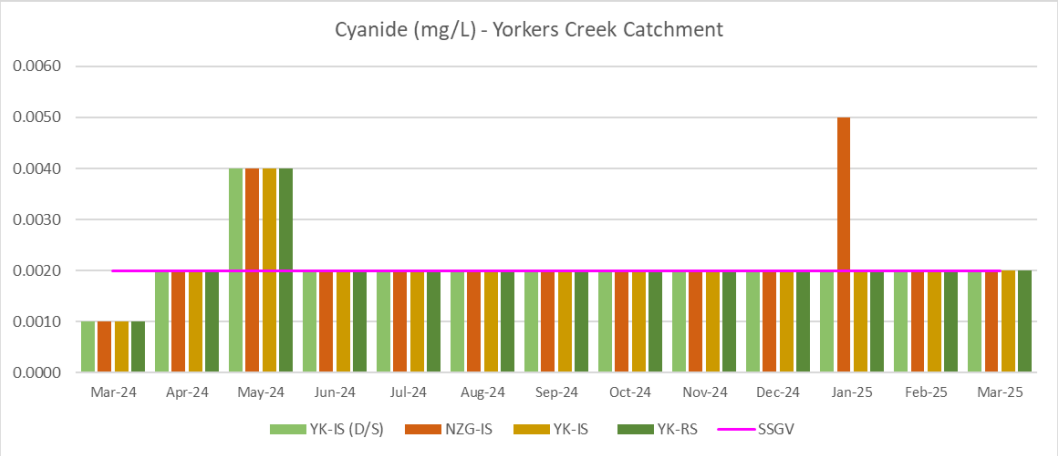

FIGURE 39: CYANIDE FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.13 Total Hardness

$CaCO_3$ (mg/L) levels at all sites in Yarrangobilly River catchment, Talbingo Reservoir and Yorkers Creek catchment exceeded the December to May SSGV of 47 mg/L, 7.5 mg/L and 1 mg/L respectively, refer to Figure 40 to Figure 42. Following previous trends, LHG-IS recorded a significantly elevated value of 326 mg/L in March 2025.

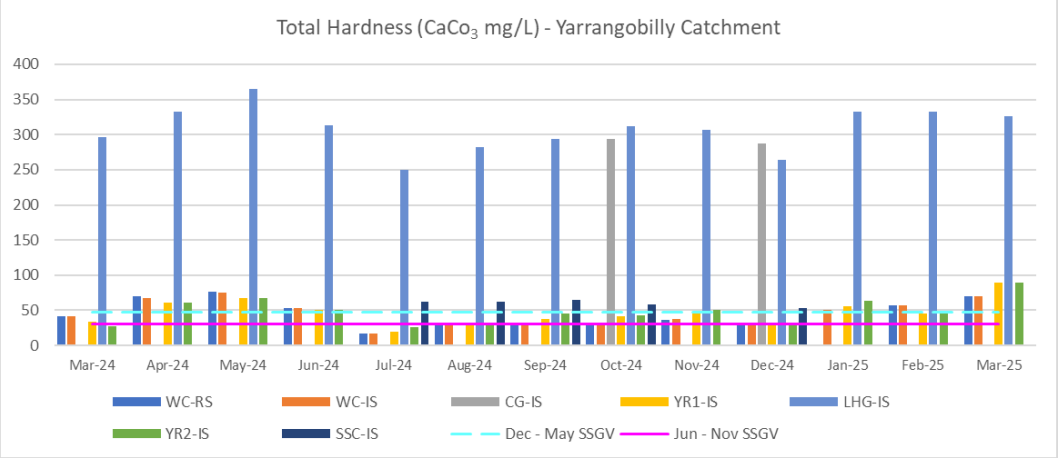

FIGURE 40: $CACO_3$ FOR YARRANGOBILLY RIVER CATCHMENT

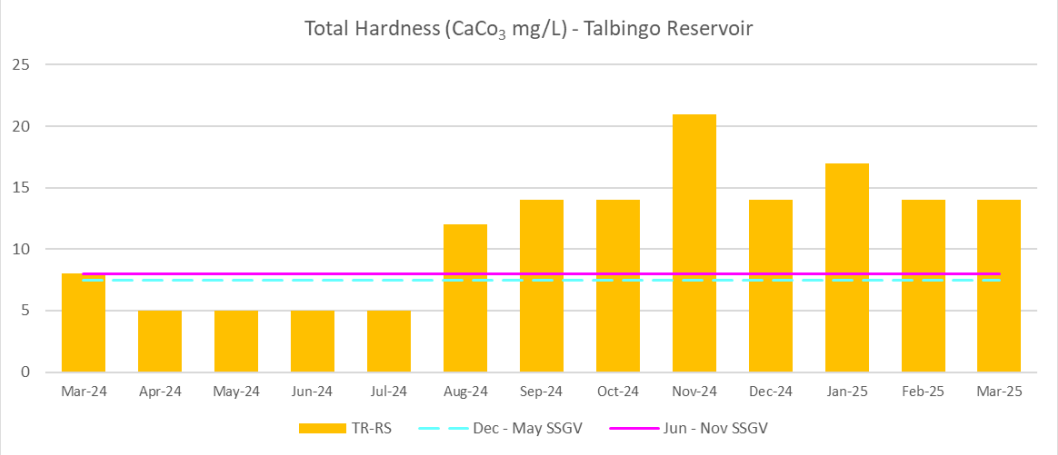

FIGURE 41: $CACO_3$ FOR TALBINGO RESERVOIR

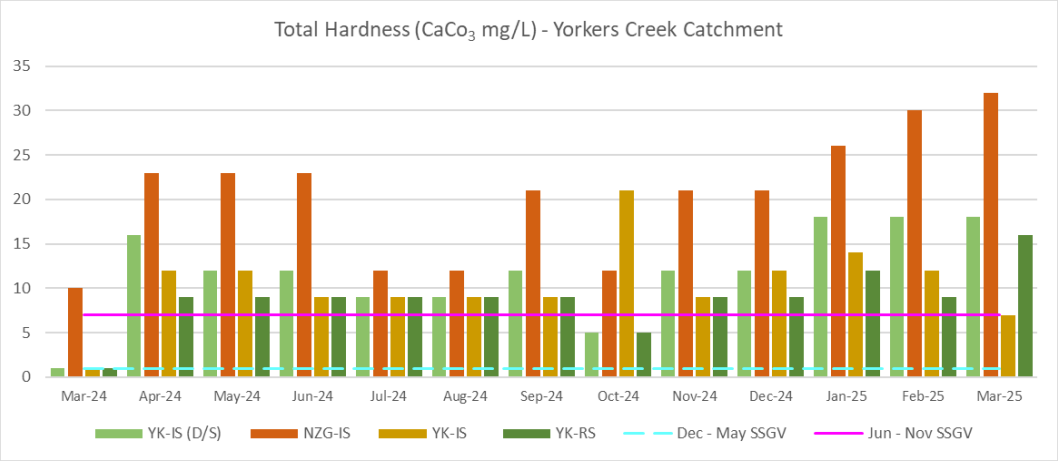

FIGURE 42: $CACO_3$ FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.14 Total Kjeldahl Nitrogen

TKN (mg/L) values exceeded the SSGV (0.2 mg/L) at LGH-IS. All other sites within Yarrangobilly River catchment were below the LOR, except for WC-RS which was on-par with the SSGV, refer to Figure 43. All remaining sites at Talbingo Reservoir and Yorkers Creek catchment were above the December to May SSGV (0.1 mg/L) except for NZG-IS, which was below the LOR, refer to Figure 44 and Figure 45.

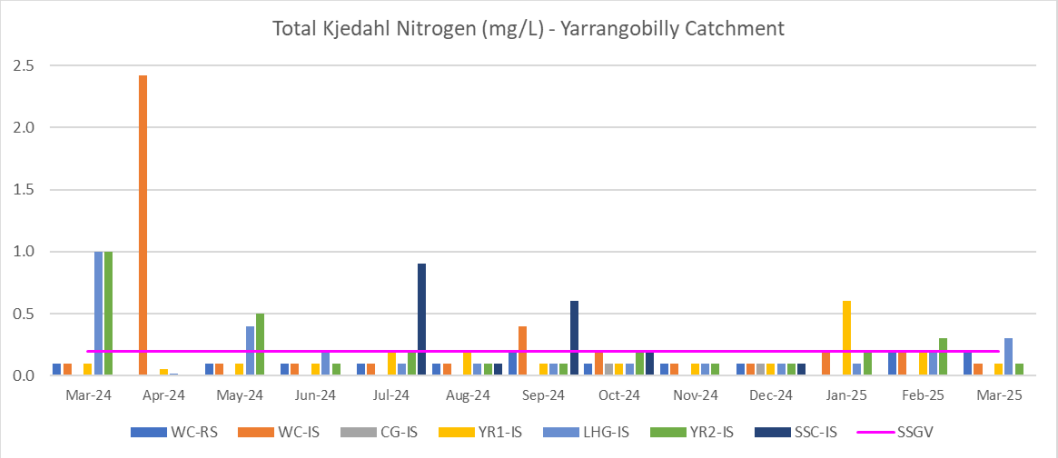

FIGURE 43: TKN FOR YARRANGOBILLY RIVER CATCHMENT

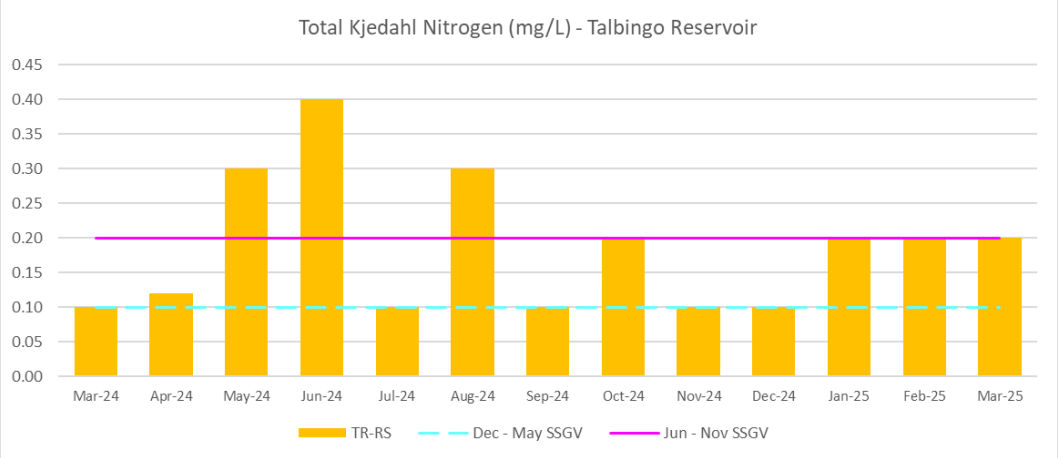

FIGURE 44: TKN FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

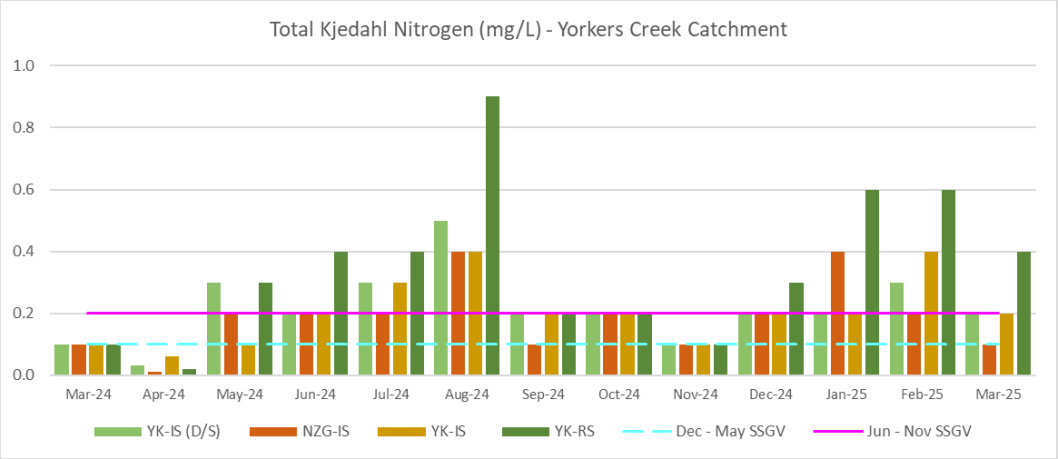

FIGURE 45: TKN FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP CIMIC

5.2.1.15 Total Nitrogen

TN (mg/L) marginally exceeded the SSGV (0.2 mg/L) at LHG-IS within Yarrangobilly River catchment site, refer to Figure 46. No exceedance was recorded at Talbingo Reservoir, refer to Figure 47. At the Yorkers Creek catchment, NZG-IS and YK-IS were within the SSGV while the other impact sites exceeded the SSGV, refer to Figure 48.

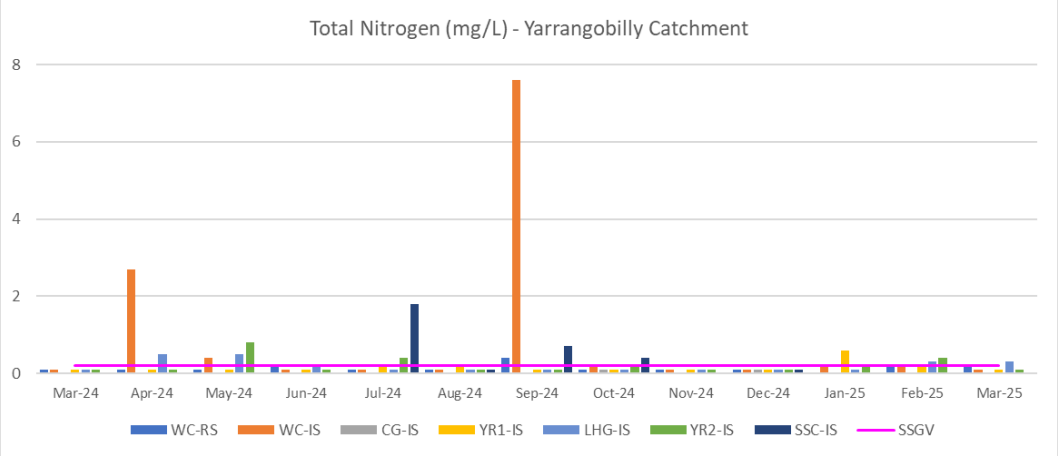

FIGURE 46: TN FOR YARRANGOBILLY RIVER CATCHMENT

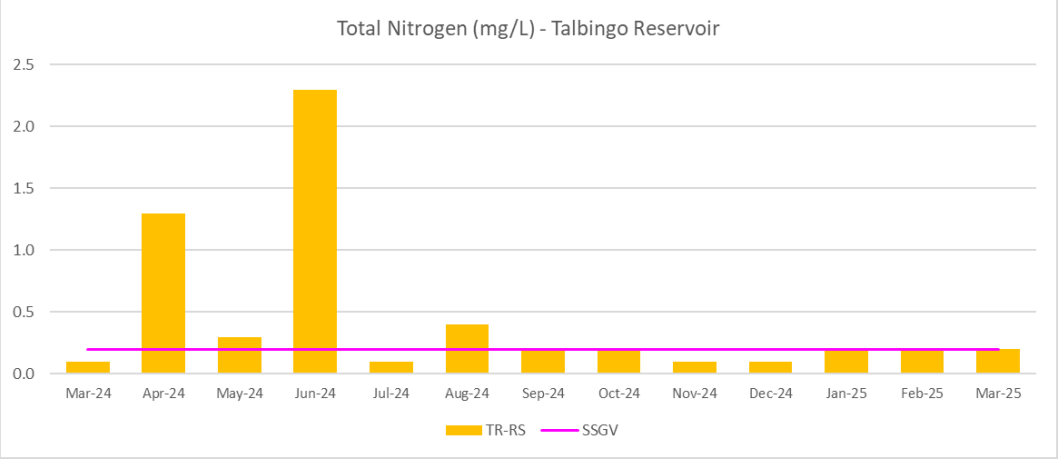

FIGURE 47: TN FOR TALBINGO RESERVOIR

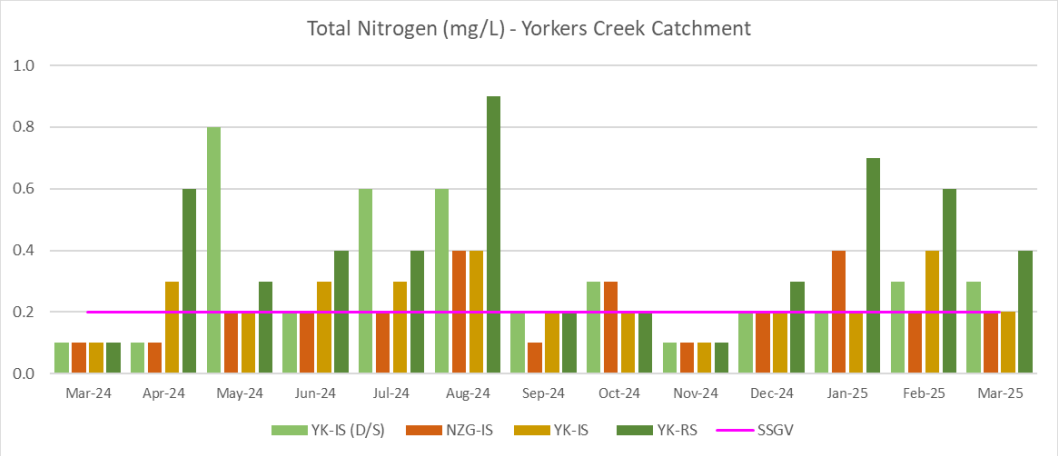

FIGURE 48: TN FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP
CIMIC

5.2.1.16 Total Phosphorus

Exceedances of the TP (mg/L) SSGV were seen at WC-RS and LHG-IS within Yarrangobilly River catchment, refer to Figure 49. Talbingo Reservoir also marginally exceeded the SSGV by 0.01 mg/L, refer to Figure 50. With the Yorkers Creek catchment, YK-IS(D/S) and NZG-IS were both within the SSGV, refer to Figure 51.

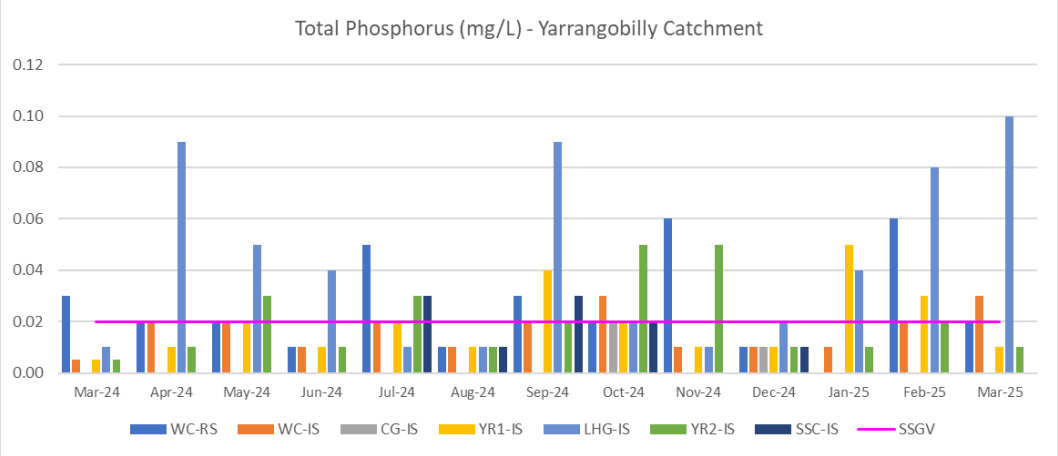

FIGURE 49: TP FOR YARRANGOBILLY RIVER CATCHMENT

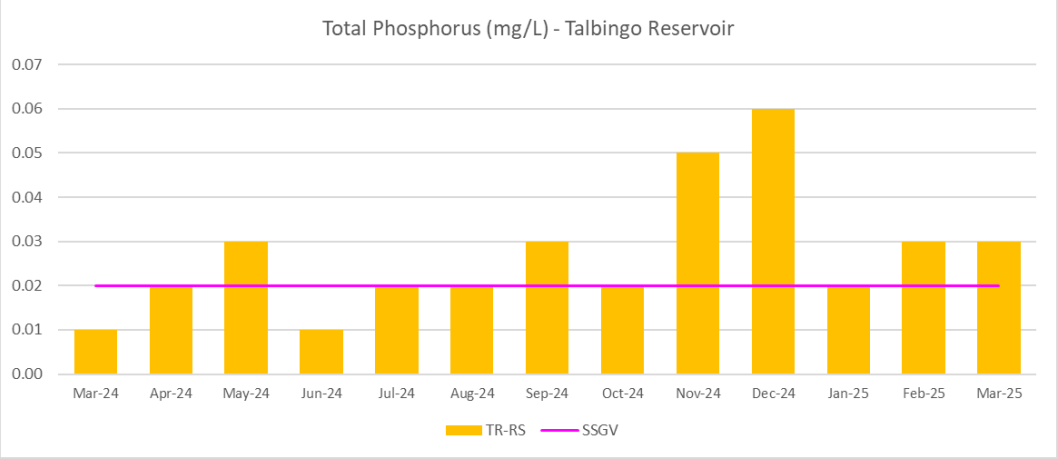

FIGURE 50: TP FOR TALBINGO RESERVOIR

A MEMBER OF THE CIMIC GROUP CIMIC

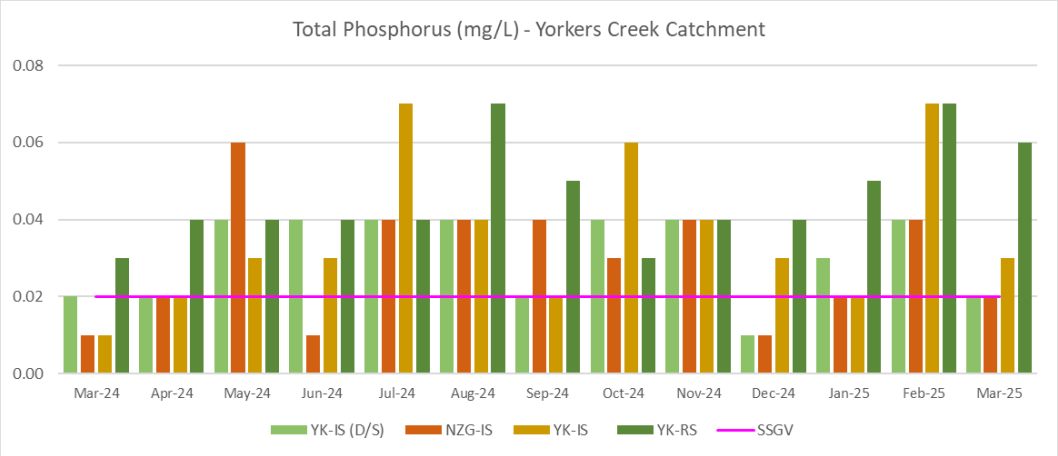

FIGURE 51: TP FOR YORKERS CREEK CATCHMENT

A MEMBER OF THE CIMIC GROUP
CIMIC

5.2.1.17 Reactive Phosphorus

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

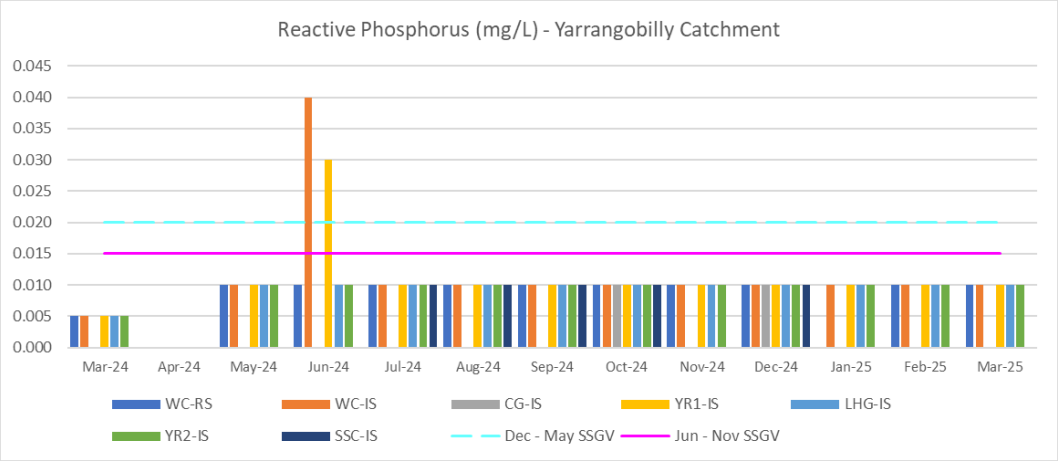

FIGURE 52: RP FOR YARRANGOBILLY RIVER CATCHMENT

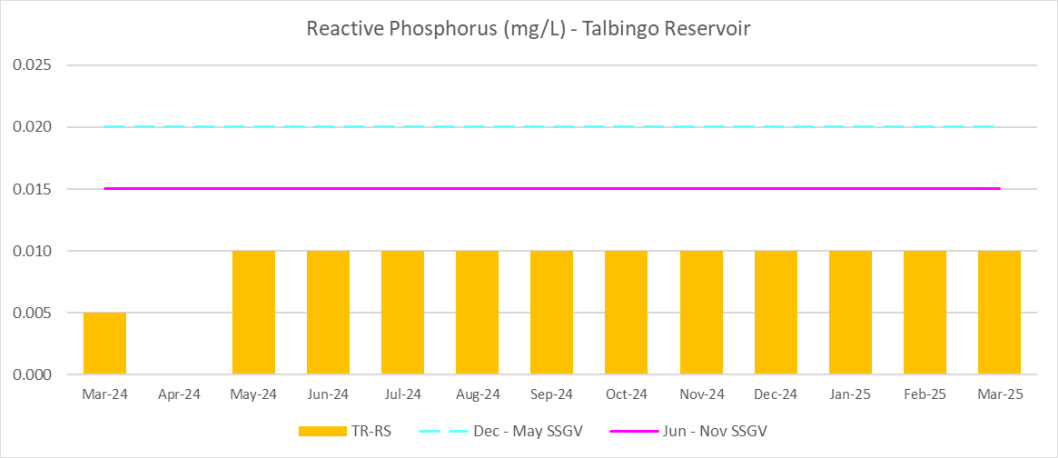

FIGURE 53: RP FOR TALBINGO RESERVOIR

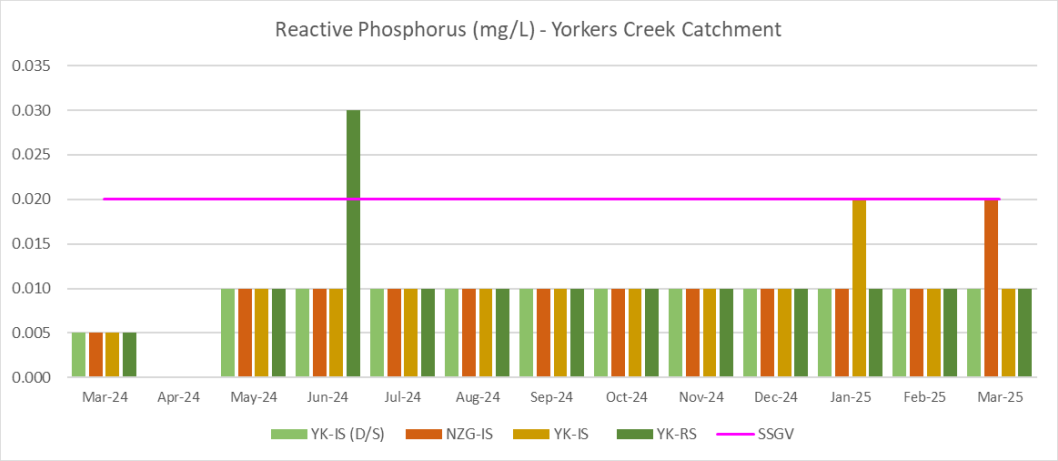

FIGURE 54: RP FOR YORKERS CREEK CATCHMENT

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5.2.2 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	LHG-IS	0.08	0.03	LHG-IS was the only site with Yarrangobilly River catchment to exceed the Al (mg/L) SSGV, with all other sites in the catchment below the LOR. TR-IS was below the LOR, and all Yorkers Creek catchment sites, except YK-RS which was above the SSGV.
	YK-RS	0.45	0.36	
As	LHG-IS	0.004	0.0003	LHG-IS was the only site across all three catchments which exceeded the SSGV, with all other sites below the LOR.
Fe	LHG-IS	2.51	0.03	LHG-IS was the only site across all three catchments which exceeded the SSGV.
Mn	WC-RS	0.008	0.002	The reference site (WC-RS), and three impact sites (WC-IS, LHG-IS and YR2-IS) in the Yarrangobilly catchment exceeded the SSGV for Mn (mg/L) with the greatest exceedance seen at LHG-IS. There was no exceedance at TR-IS at Talbingo Reservoir. Within the Yorkers Creek catchment, all sites exceeded the SSGV, except for NZG-IS which was within the SSGV.
	WC-IS	0.006		
	LHG-IS	0.597		
	YR2-IS	0.003		
	YK-RS	0.009	0.005	
	YK-IS (D/S)	0.016		
	YK-IS	0.059		

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5.2.3 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	LHG-IS	0.1	0.027	LHG-IS was the only exceedance of the DGV for Al (mg/L) in the Yarrangobilly River catchment, with all other sites in the catchment below the LOR. In contrast, all sites in Talbingo Reservoir and Yorkers Creek catchment exceeded the DGV.
	TR-RS	0.04		
	YK-RS	0.39		
	YK-IS (D/S)	0.06		
	NZG-IS	0.11		
	YK-IS	0.25		
Cu	LHG-IS	0.01	0.001	LHG-IS within the Yarrangobilly River catchment was the only exceedance of Cu (mg/L), with all other sites below the LOR.
Fe	LHG-IS	4.16	0.3	LHG-IS was the only exceedance of Fe (mg/L) within the Yarrangobilly River catchment. TR-RS in Talbingo Reservoir and YK-IS(D/S) and YK-IS in Yorkers Creek catchment also exceeded the DGV.
	TR-IS	0.7		
	YK-IS (D/S)	0.33		
	YK-IS	0.74		
Zn	LHG-IS	0.006	0.0024	LHG-IS was the only exceedance of the DGV for Zn (mg/L) across all three catchments. All other sites were below the LOR.

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6 DISCUSSION

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

- Potential impacts to SWQ:
  - Transmission line bulk earthworks activities were ongoing within the Yarrangobilly and Yorkers Creek catchment areas
  - Impact sites within the Yarrangobilly River catchment are influenced by other activities associated with the Snowy 2.0
  - TR-RS is located in O'Hares Campground, a popular public recreational area for water based activities including boating. It is also located adjacent to ancillary infrastructure associated with Talbingo Reservoir
  - Many reference sites and impact sites are located adjacent to publicly accessible tracks used for maintenance and recreational activities
  - Hoof marks, fauna scats and aquatic fauna indicate presence of fauna in and around waterways increasing potential for erosion of banks and sedimentation into waterways
  - Vegetative debris and materials in the water have potential to leach nutrients into waterways
  - Existing eroded banks increase potential for sedimentation into waterways
  - Waterways with shallow water depth are more prone to SWQ impacts due to lack of volume
  - Overhanging vegetation have potential to fall into waterways and influence water parameters
  - Vegetation cover along the riparian zone can influence the stability of the banks and groundwater which in turn may influence the waterways
  - Sheen from organic decomposition observed on the surface of the water at LHG-IS and YK-RS may impact WQ parameters
- Sampling and analysis:
  - Many of the results were recorded as below (<) the LOR
  - Analysis of some parameters were inconclusive as the SSGV/DGV for a number of parameters was lower than the LOR from the laboratory
  - Shallow water depth at sampling sites increased difficulty of sampling without disturbing bed
  - Redox (mV), RP (mg/L) and DO (ppm) were analysed outside their respective holding times which may have decreased reliability of results
  - CG-IS and SSC-IS were dry at the time of monitoring, therefore no samples were collected
- SWQ parameters:
  - Since March 2024, sites at the Yarrangobilly River catchment, including the reference site WC-RS, have consistently exceeded the relevant SSGV/DGV for the following parameters: $CaCO_3$, TSS, TDS, redox and total Al

- Since March 2024, sites at the Yorkers Creek catchment, including the reference site YK-RS, have consistently exceeded the relevant SSGV/DGV for the following parameters: DO, pH, turbidity, dissolved Mn, TP, nitrogen oxides, $CaCO_3$, TSS, TDS, redox, total Al and total Fe
- Presence of algae (not overgrown) and aquatic vegetation in waterways indicate the SWQ is sufficient to support aquatic ecosystems
- LHG-IS has consistently recorded exceedances across multiple parameters. This could be influenced by the shallow depth of the water and the high silt deposits observed in the bed
- CG-IS has only flowed twice during construction sampling, therefore, there is insufficient data to compare the results
- Temperature dropped in Yorkers Ck Catchment and Talbingo Reservoir, whilst Yarrongobilly catchments sites were warmer
- pH levels exceeded the SSGV value at most sites within the Yarrangobilly River catchment, except for LHG-IS, while all sites in the Talbingo Reservoir remained within the SSGV, and in the Yorkers Creek catchment, all sites exceeded the SSGV of 6.79 except for YK-IS.
- DO (%) levels in the Yarrangobilly River catchment were below the SSGV of 96.2% at most sites, with the exception of YR1-IS and YR2-IS. All monitored sites within the Talbingo Reservoir and Yorkers Creek catchment were also below their respective SSGVs of 89.6% and 91.3%.
- SPC (µS/cm) values remained within the SSGV of 115 µS/cm across most of the Yarrangobilly River catchment, except for LHG-IS. All sites in Talbingo Reservoir and Yorkers Creek were within their respective SSGVs.
- EC values continued to exceed the SSGVs across all catchments.
- Turbidity exceeded the SSGV at most reference and impact sites across all three catchments. The only exceptions were YK-IS (D/S) and NZG-IS in the Yorkers Creek catchment, which remained within the SSGV of 9 NTU.
- TSS levels in the Yarrangobilly River catchment were below the limit of reporting (LOR) at all sites except LHG-IS. Talbingo Reservoir sites were also below the LOR. In the Yorkers Creek catchment, YK-RS and YK-IS exceeded the SSGV, while NZG-IS and YK-IS (D/S) were below the LOR.
- LHG-IS in the Yarrangobilly River catchment recorded a TDS value of 372 mg/L, significantly exceeding the SSGV. In the Yorkers Creek catchment, only YR-RS was within the SSGV of 30 mg/L.
- Redox values exceeded the SSGVs at all sites across all three catchments.
- Nitrogen oxides were within the SSGV of 0.015 mg/L at LGH-IS in the Yarrangobilly River catchment and at YK-IS (D/S) and NZG-IS in the Yorkers Creek catchment. All other sites were below the LOR.
- Ammonia levels exceeded the SSGV of 0.013 mg/L at nearly all sites. The exceptions were YR2-IS in the Yarrangobilly River catchment, TR-RS in Talbingo Reservoir, and NZG-IS and YK-IS in Yorkers Creek, which were below the LOR.
- All sites in the Yarrangobilly River catchment, Talbingo Reservoir, and Yorkers Creek catchment exceeded their respective SSGVs for total hardness. LHG-IS in particular recorded an elevated value of 326 mg/L.

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- TKN exceeded the SSGV of 0.2 mg/L at LHG-IS, while WC-RS was on par with the guideline and all other sites in the Yarrangobilly River catchment were below the LOR. In Talbingo Reservoir and the Yorkers Creek catchment, most sites exceeded the SSGV of 0.1 mg/L, except for NZG-IS, which was below the LOR.
-
- Total nitrogen slightly exceeded the SSGV of 0.2 mg/L at LHG-IS in the Yarrangobilly River catchment. No exceedances were recorded in Talbingo Reservoir, and in the Yorkers Creek catchment, NZG-IS and YK-IS were within the SSGV, while other impact sites exceeded it.
- Total phosphorus exceeded the SSGV at WC-RS and LHG-IS in the Yarrangobilly River catchment, and was marginally above the SSGV at Talbingo Reservoir. In the Yorkers Creek catchment, YK-IS (D/S) and NZG-IS remained within the SSGV.
- Aluminium exceeded the SSGV at LHG-IS (0.08 mg/L) and YK-RS (0.45 mg/L). Arsenic and iron exceeded only at LHG-IS. Manganese exceedances were recorded at WC-RS, WC-IS, LHG-IS, YR2-IS, and all Yorkers Creek sites except NZG-IS.
- Total aluminium exceeded the DGV at LHG-IS, with all Talbingo and Yorkers Creek sites also exceeding. Copper exceeded only at LHG-IS. Iron exceeded the DGV at LHG-IS, TR-RS, YK-IS (D/S), and YK-IS. Zinc exceeded only at LHG-IS.

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7 CONCLUSION

The March 2025 water quality monitoring results indicate persistent and widespread exceedances of several environmental guideline values across the Yarrangobilly River catchment, Talbingo Reservoir, and Yorkers Creek catchment.

Resutls show consistently elevated electrical conductivity, turbidity, total hardness, and total metals—particularly at LHG-IS in the Yarrangobilly River catchment, which recorded the highest levels for multiple parameters (e.g., TDS, aluminium, iron, and manganese). Dissolved oxygen levels remained below guideline thresholds at most sites, while redox potential was elevated across all locations.

Nutrient levels (TKN, TN, TP, and ammonia) frequently exceeded seasonal site-specific guideline values, especially in the Yarrangobilly and Yorkers Creek catchments, although nitrogen oxides and reactive phosphorus were generally within acceptable limits or below detection levels. Cyanide remained below the limit of reporting at all sites.

While Talbingo Reservoir generally performed better than other catchments, it still showed exceedances in key parameters such as total phosphorus and total metals. pH levels were mostly stable but exceeded the SSGV at several sites, especially in the Yorkers Creek catchment.

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Appendix A: Field Sheets (UGL, 2025)

UGL

WATER QUALITY MONITORING FIELD SHEET

Date: 19/03/25 | Personnel: VIY / EB | Sampling Purpose: March monthly water quality 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: 0mm
Dec - May SSGV:	-	-		96.2	115	7.85	0.37	0.2	Weather Forecast: 1-5mm ~ 60%
Jun - Nov SSGV:	-	-		89.7	88	7.62	5.12	1	Weather Time of Sampling: sunny, some clouds
WC-RS Wallace Creek	10:13am	14.7	715.3	92.7	34.6	8.32	1.16	0.00	Water level low, High flow, rockybed, exposed banks(s). Large tree exposed roots. Eastern banks more ground cover, vegetation ground cover, shrubs, vegetated debre in water moderate weed density inc blackberry water clear, algae, oily sheen presence, dragonfly, high visibility
WC-IS Wallace Creek	10:56 am	16.1	715.3	95.8	31.8	8.33	1.13	0.00	High weed density, BlkBe, High Flow, low vol. debre, Kangaroo scat, Rocky bed, undercut bank, dragonfly, under briage mine trail bridge, vegetation of trees + groundcover, shrub water clear, rubbish, high visibility
LHG-IS ~~CG-IS~~ ~~Cave Gully~~ Lickhole	12:54 pm	22.0	713.6	59.6	134.7	7.62	9.64	0.00	Rocky, groundcover - riparian very shallow water, oily sheen, rusty color algae. Adjacent to mine trail road - culvert Kangaroo scat, low flow, milky/Brown (light) water, insects - aquatic invertebrate, rust-like shell
YR1-IS Yarrangobilly River	11:45 am	19.5	715.2	101.4	39.3	8.46	1.16	0.00	• low volume, high flow • clear water, high visibility • rocky bed • riparian veg inc trees, shrubs, ground cover • weed density inc blackberry • aquatic veg, algae • water bontaun • vegetative detritus • kangaroo scat • fox scat • some exposed soil on southern bank • water monitor

UGL

WATER QUALITY MONITORING FIELD SHEET

Date: 19.3.25 | Personnel: VLY / EB | Sampling Purpose: March monthly

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: 0mm
Dec - May SSGV:	-	-		96.2	115	7.85	0.37	0.2	Weather Forecast: 60% 1-5mm
Jun - Nov SSGV:	-	-		89.7	88	7.62	5.12	1	Weather Time of Sampling: sunny, few clouds
CG-IS ~~LHG-IS~~ ~~Lick Hole Gully~~ Cave Gully	dry								low vo, mod flow, clear water high vis, rocky banks, bed. Adjacent to mine trail road bridge, + electrical tower, minimal riparian veg, high weed density adjacent to rocky clif face, aquatic veg, invertebrates, algal coating surface of water. • water monitor • vegetative detritus
YR2-IS Yarrangobilly River	1:35	22.2	715.7	102.1	39.9	8.55	0.89	0.00	
SSC-IS Sheep Station Creek	dry								dry
TR-RS Talbingo Reservoir	12:53	21.3	716.8	90.1	8.3	7.56	3.25	0.00	O'Hares area, Adjacent to talbingo infastructure Ducks, Vegetation: Shrubs and trees, water is high volume, Low flow, aquatic vegetation, water is clear, moderate visability, Sandy and rocky bed, a lot of leaf litter on surface of the water, rocky banks, landslip present, rubbish

UGL

WATER QUALITY MONITORING FIELD SHEET

Date: 20.03.25 | Personnel: VLY / OM | Sampling Purpose: March Monthly

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: 6mm
Dec - May SSGV:	-	-		96.2	115	7.85	0.37	0.2	Weather Forecast: 20-40mm 90%
Jun - Nov SSGV:	-	-		89.7	88	7.62	5.12	1	Weather Time of Sampling: Sunny and Clear
YK-RS Yorkers Creek	10:17	17.4	669.0	81.4	9.7	7.46	20.65	0.00	Low volume, Low flow, water is brown tinge, Dragonfly, riparian vegetation (ground cover + trees), Low weed density inc: Blackberries, erroded banks, Kangaroo scat, Presence of mica, Vegetative detritus, Clay bed, Sand present, overhanging veg, Potential burrows, hoof marks. Adjacent to publically accessable access track
YK-IS ~~(D/S)~~ Yorkers Creek	11:06	17.6	670.6	71.4	10.5	6.77	13.54	0.00	Frog, Aquatic vegetation, water beatles, Low volume, Low flow, brown tinge, algae, riparian vegetation: Ground cover, weeds, horse marks, vegetated detritus, presence of mica, banks semi-erroded, rocky bed, horse scat. Runs into calvert of Elliot's way
NZG-IS New Zealand Gully	9:36	13.6	674.1	84.1	17.4	7.15	1.91	0.00	Presence of hoof marks, erroded banks, heavily Rocky/Sandy bed, Vegetated detritus water is clear* with high visability, low volume, Low flow, Presence of mica, Pairing Vegetation includes ground cover and trees, overhanging vegetation, high weed density inc: blackberry, Aquatic Vegetation, Possum Scats. * slight yellow tinge
YK-IS Yorkers Creek (O/S)	12:16	15.9	672.0	89.2	10.7	7.32	3.61	0.00	Horse manure, algae, Aquatic Vegetation, riparian vegetation inc ground cover and trees, ~~ground are undercut~~, banks are undercut, overhanging vegetation, adjacent to public access track, low volume, moderate flow, slight brown tinge, Presence of mica, rocky bed, Kangaroo scat, Water Beatles, Burrows in the bank. Runs down to culvert

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

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Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	WC-RS	WC-IS	YR1-IS	YK-RS	YK-IS(D/S)
			Sampling date / time	19-Mar-2025 10:20	19-Mar-2025 10:55	19-Mar-2025 11:44	20-Mar-2025 10:15	20-Mar-2025 12:10
Compound	CAS Number	LOR	Unit	ES2508985-001	ES2508985-002	ES2508985-003	ES2508985-004	ES2508985-005
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	**7.85**	**7.97**	**8.20**	**7.48**	**7.21**
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	**145**	**145**	**178**	**43**	**48**
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	**90**	**85**	**100**	**28**	**43**
EA025: Total Suspended Solids dried at 104 ± 2°C								
Suspended Solids (SS)	----	1	mg/L	<1	<1	<1	**20**	**2**
EA045: Turbidity								
Turbidity	----	0.1	NTU	**0.4**	**0.2**	**0.2**	**13.2**	**1.9**
EA075: Redox Potential								
Redox Potential	----	0.1	mV	**162**	**170**	**175**	**170**	**152**
pH Redox	----	0.01	pH Unit	**7.78**	**7.84**	**8.14**	**7.53**	**6.47**
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO3	----	1	mg/L	**70**	**70**	**90**	**16**	**18**
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	**0.45**	**0.07**
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	**0.002**
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**	**0.006**	**0.002**	**0.009**	**0.016**
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	<0.05	**0.30**	**0.21**
EG020T: Total Metals by ICP-MS								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	WC-RS	WC-IS	YR1-IS	YK-RS	YK-IS(D/S)
			Sampling date / time	19-Mar-2025 10:20	19-Mar-2025 10:55	19-Mar-2025 11:44	20-Mar-2025 10:15	20-Mar-2025 12:10
Compound	CAS Number	LOR	Unit	ES2508985-001	ES2508985-002	ES2508985-003	ES2508985-004	ES2508985-005
				Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	**0.39**	**0.06**
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	**0.010**	**0.007**	**0.003**	**0.015**	**0.019**
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	<0.05	**0.70**	**0.33**
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	**0.02**	**0.02**	**0.03**	**0.02**	**0.05**
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	<0.01	<0.01	<0.01	<0.01	**0.09**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	**0.09**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N	----	0.1	mg/L	**0.2**	**0.1**	**0.1**	**0.4**	**0.2**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	WC-RS	WC-IS	YR1-IS	YK-RS	YK-IS(D/S)
				Sampling date / time	19-Mar-2025 10:20	19-Mar-2025 10:55	19-Mar-2025 11:44	20-Mar-2025 10:15	20-Mar-2025 12:10
Compound	CAS Number	LOR	Unit		ES2508985-001	ES2508985-002	ES2508985-003	ES2508985-004	ES2508985-005
					Result	Result	Result	Result	Result
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser - Continued									
^ Total Nitrogen as N	----	0.1	mg/L		**0.2**	**0.1**	**0.1**	**0.4**	**0.3**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.02**	**0.03**	<0.01	**0.06**	**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
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		**9.8**	**9.7**	**9.6**	**9.3**	**9.6**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	NZG-IS	YK-IS	LHG-IS	YR2-IS	TR-RS
				Sampling date / time	20-Mar-2025 09:35	20-Mar-2025 11:05	19-Mar-2025 12:54	19-Mar-2025 13:35	20-Mar-2025 12:45
Compound	CAS Number	LOR	Unit		ES2508985-006	ES2508985-007	ES2508985-008	ES2508985-009	ES2508985-010
					Result	Result	Result	Result	Result
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit		**7.53**	**6.96**	**8.04**	**7.92**	**7.29**
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm		**78**	**45**	**610**	**182**	**36**
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		**66**	**41**	**372**	**104**	**28**
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	1	mg/L		**2**	**13**	**50**	<1	<1
EA045: Turbidity									
Turbidity	----	0.1	NTU		**1.8**	**8.6**	**34.1**	**0.2**	**0.4**
EA075: Redox Potential									
Redox Potential	----	0.1	mV		**165**	**161**	**173**	**158**	**138**
pH Redox	----	0.01	pH Unit		**7.15**	**6.62**	**7.51**	**7.92**	**7.45**
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L		**32**	**7**	**326**	**90**	**14**
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.03**	**0.02**	**0.08**	<0.01	**0.01**
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	**0.004**	<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	**0.015**	<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		**0.005**	**0.059**	**0.597**	**0.003**	**0.002**
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		**0.07**	**0.19**	**2.51**	<0.05	<0.05
EG020T: Total Metals by ICP-MS									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	NZG-IS	YK-IS	LHG-IS	YR2-IS	TR-RS
				Sampling date / time	20-Mar-2025 09:35	20-Mar-2025 11:05	19-Mar-2025 12:54	19-Mar-2025 13:35	20-Mar-2025 12:45
Compound	CAS Number	LOR	Unit		ES2508985-006	ES2508985-007	ES2508985-008	ES2508985-009	ES2508985-010
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Aluminium	7429-90-5	0.01	mg/L		**0.11**	**0.25**	**0.10**	**0.01**	**0.04**
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	**0.010**	<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	**0.006**	<0.005	<0.005
Manganese	7439-96-5	0.001	mg/L		**0.007**	**0.054**	**0.559**	**0.004**	**0.019**
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**	**0.74**	**4.16**	<0.05	**0.06**
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	**0.07**	<0.01	**0.01**
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		**0.17**	<0.01	**0.04**	<0.01	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.17**	<0.01	**0.04**	<0.01	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		<0.1	**0.2**	**0.3**	**0.1**	**0.2**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	NZG-IS	YK-IS	LHG-IS	YR2-IS	TR-RS
				Sampling date / time	20-Mar-2025 09:35	20-Mar-2025 11:05	19-Mar-2025 12:54	19-Mar-2025 13:35	20-Mar-2025 12:45
Compound	CAS Number	LOR	Unit		ES2508985-006	ES2508985-007	ES2508985-008	ES2508985-009	ES2508985-010
					Result	Result	Result	Result	Result
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser - Continued									
^ **Total Nitrogen as N**	----	0.1	mg/L		**0.2**	**0.2**	**0.3**	**0.1**	**0.2**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.02**	**0.03**	**0.10**	<0.01	**0.03**
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		**0.02**	<0.01	<0.01	<0.01	<0.01
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		**9.6**	**8.8**	**8.7**	**9.5**	**8.9**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	YK-RS(DUPLICATE)	----	----	----	----
			Sampling date / time	20-Mar-2025 10:20	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2508985-011	--------	--------	--------	--------
				Result	----	----	----	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	**7.30**	----	----	----	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	**42**	----	----	----	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	**48**	----	----	----	----
EA025: Total Suspended Solids dried at 104 ± 2°C								
Suspended Solids (SS)	----	1	mg/L	**11**	----	----	----	----
EA045: Turbidity								
Turbidity	----	0.1	NTU	**16.1**	----	----	----	----
EA075: Redox Potential								
Redox Potential	----	0.1	mV	**166**	----	----	----	----
pH Redox	----	0.01	pH Unit	**7.30**	----	----	----	----
ED093F: SAR and Hardness Calculations								
Total Hardness as CaCO3	----	1	mg/L	**16**	----	----	----	----
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	**0.08**	----	----	----	----
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	**0.008**	----	----	----	----
Silver	7440-22-4	0.001	mg/L	<0.001	----	----	----	----
Iron	7439-89-6	0.05	mg/L	**0.24**	----	----	----	----
EG020T: Total Metals by ICP-MS								

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	YK-RS(DUPLICATE)	----	----	----	----
				Sampling date / time	20-Mar-2025 10:20	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2508985-011	--------	--------	--------	--------
					Result	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser - Continued									
^ **Total Nitrogen as N**	----	0.1	mg/L		**0.4**	**----**	**----**	**----**	**----**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.05**	**----**	**----**	**----**	**----**
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	**----**	**----**	**----**	**----**
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		**9.0**	**----**	**----**	**----**	**----**

Appendix C: March 2025 SWQ Monitoring Results

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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)	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)		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	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	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001	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 Va				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	0.2	0.02	0.00002	0.002	0.013	0.015	0.020	47	0.2	52	0.2												
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	0.2	0.02	0.00002	0.002	0.013	0.015	0.015	30	0.2	39	1.0												
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*	*0.02*	0.002	0.003	*0.00002*	*0.001*	*0.1*	0.02	*0.00001*	*0.001*	0.050	0.05	0.005	42	*0.1*	70	*0.1*	-	-	-	-	-	-	-	-	-	-	-
	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*	*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	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*	*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	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*	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	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*	*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	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*	*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	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*	0.4	0.02	*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	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*	*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	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*	*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	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*	*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	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*	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	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*	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*
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*	*0.02*	0.002	0.003	*0.00002*	*0.0005*	*0.1*	*0.005*	*0.00001*	*0.001*	0.050	0.05	*0.005*	42	*0.1*	81	*0.1*	-	-	-	-	-	-	-	-	-	-	-
	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*	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	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*	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	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*	*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	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*	*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	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*	0.006	*0.0001*	*0.001*	*0.1*	*0.01*	*0.001*	0.006	*0.010*	0.03	*0.01*	28	*0.1*	45	4	0.08	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.006	*0.001*	*0.001*	*0.005*	0.06	*0.0001*
	Sep-24	No	11.7	92.9	-	54.4	-	7.83	-	5.3	0.04	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.005	*0.0001*	*0.001*	7.8	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	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*	0.2	0.02	*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	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*	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	36	*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	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*	*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	No	17.8	85.7	9.1	24.5	108	7.80	232	2.73	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	0.007	*0.0001*	*0.001*	0.2	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	51	0.2	83	*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	No	16.3	85.2	9.4	26	123	7.80	164	4.09	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	0.007	*0.0001*	*0.001*	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	No	16.1	95.8	9.7	31.8	145	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*	*0.1*	0.02	*0.001*	*0.005*	0.020	*0.01*	*0.01*	71	*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*
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*	*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	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	No	14	88.5	9.7	29	480	8.12	256	2.84	*0.01*	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	*0.05*	*0.001*	*0.001*	*0.0001*	*0.001*	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	0.02	*0.01*	287	*0.1*	335	*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	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YR1-IS	Mar-24	No	12.2	88.2	9.47	129.4	97.7	7.81	53.8	*0.1*	0.05	*0.00015*	*0.00001*	*0.00009*	0.002	*0.001*	*0.03*	*0.0005*	0.002	*0.000015*	*0.001*	*0.1*	*0.005*	*0.00001*	*0.001*	0.050	0.05	*0.005*	34	*0.1*	66	*0.1*												
	Apr-24	No	11.3	97.4	-	138.1	-	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*	*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	No	3.1	95.6	-	138.3	-	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*	*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	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*	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	0.03	51	*0.1*	66	*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	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*	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	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*	0.2	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	32	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	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*	*0.1*	0.04	*0.001*	*0.005*	*0.010*	0.02	*0.01*	36	*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	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*	*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	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*	*0.1*	*0.01*	*0.001*	*0.005*	*0.010*	*0.01*	*0.01*	48	*0.1*	73	*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	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*	*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*	0.026	0.15	*0.0001*
	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*	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	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*	0.32	*0.001*	0.005	*0.0001*	*0.001*	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	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*	*0.1*	*0.01*	*0.001*	*0.005*	0.030	*0.01*	*0.01*	90	*0.1*	106	*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*

	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)	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)		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	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	0.0002	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001	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 Va				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	0.2	0.02	0.00002	0.002	0.013	0.015	0.020	47	0.2	52	0.2												
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	0.2	0.02	0.00002	0.002	0.013	0.015	0.015	30	0.2	39	1.0												
YR1-IS	Mar-24	No	12.2	88.2	9.47	129.4	97.7	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	0.1	0.005	0.00001	0.001	0.050	0.05	0.005	34	0.1	66	0.1												
	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	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	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	0.1	0.02	0.001	0.005	0.010	0.01	0.01	63	0.1	95	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
	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	0.063	0.0001	0.001	0.1	0.01	0.001	0.005	0.010	0.01	0.03	51	0.1	66	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	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	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	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	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	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	0.1	0.04	0.001	0.005	0.010	0.05	0.01	38	0.1	68	2	0.08	0.001	0.0001	0.001	0.001	0.001	0.003	0.001	0.001	0.005	0.05	0.0001
	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	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	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	0.1	0.01	0.001	0.005	0.010	0.01	0.01	46	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	No	14.3	91.1	9.9	40.4	69	7.52	253	3.54	0.1	0.001	0.0001	0.001	0.001	0.002	0.06	0.001	0.001	0.0001	0.001	0.1	0.01	0.001	0.005	0.010	0.01	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	0.036	0.15	0.0001
	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	0.6	0.03	0.001	0.005	0.089	0.05	0.01	56	0.6	91	47	0.27	0.001	0.0001	0.001	0.001	0.001	0.051	0.001	0.001	0.009	0.31	0.0001
	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	0.11	0.001	0.006	0.0001	0.001	0.2	0.02	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	No	19.5	101.4	9.6	39.3	178	8.46	175	1.18	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001	0.1	0.01	0.001	0.005	0.030	0.01	0.01	90	0.1	150	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
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	0.005	0.1	0.01	0.00001	0.006	0.050	0.05	0.005	297	1	320	20												
	Apr-24	No	12.5	60.1		668		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	0.5	0.09	0.001	0.005	0.020	0.01	-	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	No	7	63.2		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	0.5	0.05	0.001	0.005	0.040	0.06	0.01	363	0.4	402	5	0.07	0.001	0.0001	0.001	0.001	0.001	0.177	0.001	0.001	0.005	1.05	0.0001
	Jun-24	No	8.5	70.4		615		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	0.2	0.04	0.001	0.005	0.020	0.01	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	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	0.1	0.01	0.001	0.005	0.010	0.01	0.01	230	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	No	11.4	83.0		408.0		7.71		76.53	0.01	0.001	0.0001	0.001	0.001	0.002	0.07	0.001	0.020	0.0001	0.001	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	No	9.7	87.2		424.6		7.63		6.11	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.048	0.0001	0.001	0.1	0.03	0.001	0.006	0.010	0.01	0.01	294	0.1	384	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	No	12.4	86.5		432.4		7.59		2.2	0.01	0.001	0.0001	0.001	0.001	0.002	0.15	0.001	0.036	0.0001	0.001	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	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	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	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	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	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	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	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	0.3	0.09	0.001	0.005	0.010	0.05	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	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	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
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	0.1	0.005	0.00001	0.001	0.050	0.05	0.005	27	1	59	0.1												
	Apr-24	No	11.8	97.1		139.7		8.52		1.31	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001	0.1	0.01	0.001	0.005	0.010	0.01		63	0.1	-	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	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	0.8	0.03	0.001	0.007	0.020	0.01	0.01	68	0.3	98	1	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	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	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	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	0.4	0.03	0.001	0.005	0.010	0.01	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	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	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	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	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	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	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	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	0.1	0.05	0.001	0.005	0.010	0.01	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	No	13.6	90.3	9.8	44.1	75	7.84	220	5.64	0.08	0.001	0.0001	0.001	0.001	0.002	0.08	0.001	0.001	0.0001	0.001	0.1	0.01	0.001	0.005	0.020	0.01	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	No	28.9	90.5	8.3	28.5	120	8.09	226	1.35	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.004	0.0001	0.001	0.2	0.01	0.001	0.005	0.010	0.01	0.01	64	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	No	19.3	91.3	9.4	23.3	109	7.97	170	5.89	0.13	0.001	0.0001	0.001	0.001	0.002	0.11	0.001	0.005	0.0001	0.001	0.4	0.02	0.001	0.005	0.020	0.01	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	No	22.2	102.1	9.5	39.9	182	8.55	158	0.88	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001	0.1	0.01	0.001	0.005	0.010	0.01	0.01	94	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
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	1.8	0.02	0.001	0.024	0.030	0.01	0.01	62	0.3	110	1	0.08	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.025	0.4	0.0001
	Aug-24	No	12.1	94.0		120.9		7.75		3.9	0.04	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001	0.1	0.01	0.001	0.005	0.010	0.01	0.01	65	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	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	0.7	0.03	0.001	0.036	0.010	0.01	0.01	65	0.3	108	5	0.10	0.001	0.0001	0.001	0.001	0.001	0.004	0.001	0.001	0.026	0.08	0.0001
	Oct-24	No	10.1	81.5		110.8		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	0.4	0.02	0.001	0.005	0.010	0.01	0.01	59	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	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	0.1	0.01	0.001	0.005	0.01	0.01	0.01	52	0.1	85	8	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	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	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)	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		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	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	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001	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				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	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				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	0.2	0.02	0.00002	0.002	0.013	0.015	0.015	8	0.2	15	0.2												
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*	*0.1*	*0.01*	*0.00001*	*0.001*	0.050	0.05	*0.005*	8	*0.1*	44	*0.1*												
	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*	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	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*	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	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*	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	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*	*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	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*	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	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*	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	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*	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	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*	*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	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*	*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	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*	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	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*	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	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*	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*

	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)	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		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	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	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001	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				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	0.2	0.02	0.00002	0.002	0.013	0.015	0.02	1	0.1	30	3												
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	0.2	0.02	0.00002	0.002	0.013	0.015	0.02	7	0.2	10	0.2												
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*	*0.1*	0.03	*0.00001*	*0.002*	0.050	0.05	*0.005*	*1*	*0.1*	30	3												
	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*	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	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*	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	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*	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	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*	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	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*	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	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*	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	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*	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	No	19.3	84.8	9	30	30	6.68	259	12.8	0.06	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.12	*0.001*	0.014	*0.0001*	*0.001*	*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	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*	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	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*	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	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*	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	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*	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*
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*	*0.1*	0.02	*0.00001*	*0.002*	0.050	0.05	*0.005*	*1*	*0.1*	15	*0.1*												
	Apr-24	No	5.9	86.0	-	39.6	-	7.33	-	221.75	0.05	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.11	*0.001*	0.014	*0.0001*	*0.001*	*0.1*	0.02	*0.001*	*0.005*	*0.010*	0.03	-	15	*0.03*	-	3	0.1	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.016	0.003	*0.001*	0.005	0.26	*0.0001*
	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*	0.3	0.04	*0.001*	*0.005*	*0.010*	0.03	*0.01*	12	0.3	39	9	0.12	*0.001*	*0.0001*	0.002	*0.001*	*0.001*	0.035	0.002	*0.001*	*0.005*	0.61	*0.0001*
	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*	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	No	3.2	85.0	-	32.8	-	7.11	-	8.25	0.28	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.22	*0.001*	0.005	*0.0001*	*0.001*	0.6	0.04	*0.001*	0.007	*0.010*	0.28	*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	No	7.3	84.7	-	23.2	-	6.85	-	22.33	0.51	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.34	*0.001*	0.011	*0.0001*	*0.001*	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	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*	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	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*	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	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*	*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	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*	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	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*	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	No	20.5	85.0	9.3	10.4	47	7.09	190	5.32	0.14	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.24	*0.001*	0.016	*0.0001*	*0.001*	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	No	15.9	89.2	9.6	10.7	48	7.32	182	3.01	0.07	*0.001*	*0.0001*	*0.001*	0.002	*0.002*	0.21	*0.001*	0.016	*0.0001*	*0.001*	0.2	0.02	*0.001*	*0.005*	0.050	0.09	*0.01*	18	0.2	46	2	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.019	*0.001*	*0.001*	*0.005*	0.33	*0.0001*
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*	*0.1*	*0.01*	*0.00001*	*0.002*	0.050	0.05	*0.005*	13	*0.1*	22	*0.1*												
	Apr-24	No	6.4	84.9	-	67.1	-	7.38	-	0.96	0.03		*0.0001*	*0.001*	*0.001*	*0.002*	0.08	*0.001*	0.006	*0.0001*	*0.001*	*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	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*	0.2	0.06	*0.001*	0.007	*0.010*	0.03	*0.01*	23	0.2	60	5	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.001*	0.021	*0.001*	*0.001*	*0.005*	0.39	*0.0001*
	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*	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	No	3.7	83.9	-	34.9	-	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*	0.2	0.04	*0.001*	*0.005*	*0.010*	0.04	*0.01*	13	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	No	7.7	84.4	-	28.9	-	6.95	-	15.47	0.44	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.33	*0.001*	0.008	*0.0001*	*0.001*	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	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*	*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	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*	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	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*	*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	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*	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	No	13.6	75.2	9.3	42.7	72	7.40	209	4.83	0.02	*0.001*	*0.0001*	*0.001*	*0.001*	0.001	*0.05*	*0.001*	0.004	*0.0001*	*0.001*	0.2	0.04	*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	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*	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	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*	0.2	0.02	*0.001*	*0.005*	*0.010*	0.17	0.02	33	*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*
YK-IS	Mar-24	No	11.4	78.0	8.53	35	25.9	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*	*0.1*	*0.01*	*0.00001*	*0.004*	0.050	0.05	*0.005*	*1*	*0.1*	21	*1*												
	Apr-24	No	6.8	80.7	-	36.5	-	7.04	-	12.33	0.09	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.15	*0.001*	0.016	*0.0001*	*0.001*	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	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*	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	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*	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	No	3.2	82.8	-	32.5	-	7.00	-	11.3	0.31	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.25	*0.001*	0.008	*0.0001*	*0.001*	0.3	0.07	*0.001*	0.005	*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	No	7.2	81.3	-	23.5	-	6.76	-	25.12	0.67	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.46	*0.001*	0.015	*0.0001*	0.002	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*	0.002	*0.001*	*0.001*	0.026	*0.001*	*0.001*	*0.005*	0.99	*0.0001*
	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*	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	No	13.7	86.3		23.7	-	7.80	-	3.1	0.07	*0.001*	*0.0001*	*0.001*	*0.001*	*0.002*	0.06	*0.001*	0.004	*0.0001*	*0.001*	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	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*	*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	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*	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	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*	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	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*	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	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*	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*

	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
ACN: 152 274 014 ABN: 84 152 274 014
Postal Address: PO Box 4489, North Rocks, 2151 NSW Australia
T: 1300 309 881 F: 1300 885 178
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,MY60083003* *NATA REPORT NO: A43641EA, 2023004169*

A MEMBER OF THE CIMIC GROUP CIMIC