MAY 2025

MONTHLY CONSTRUCTION WATER QUALITY MONITORING REPORT

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

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ABBREVIATIONS

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

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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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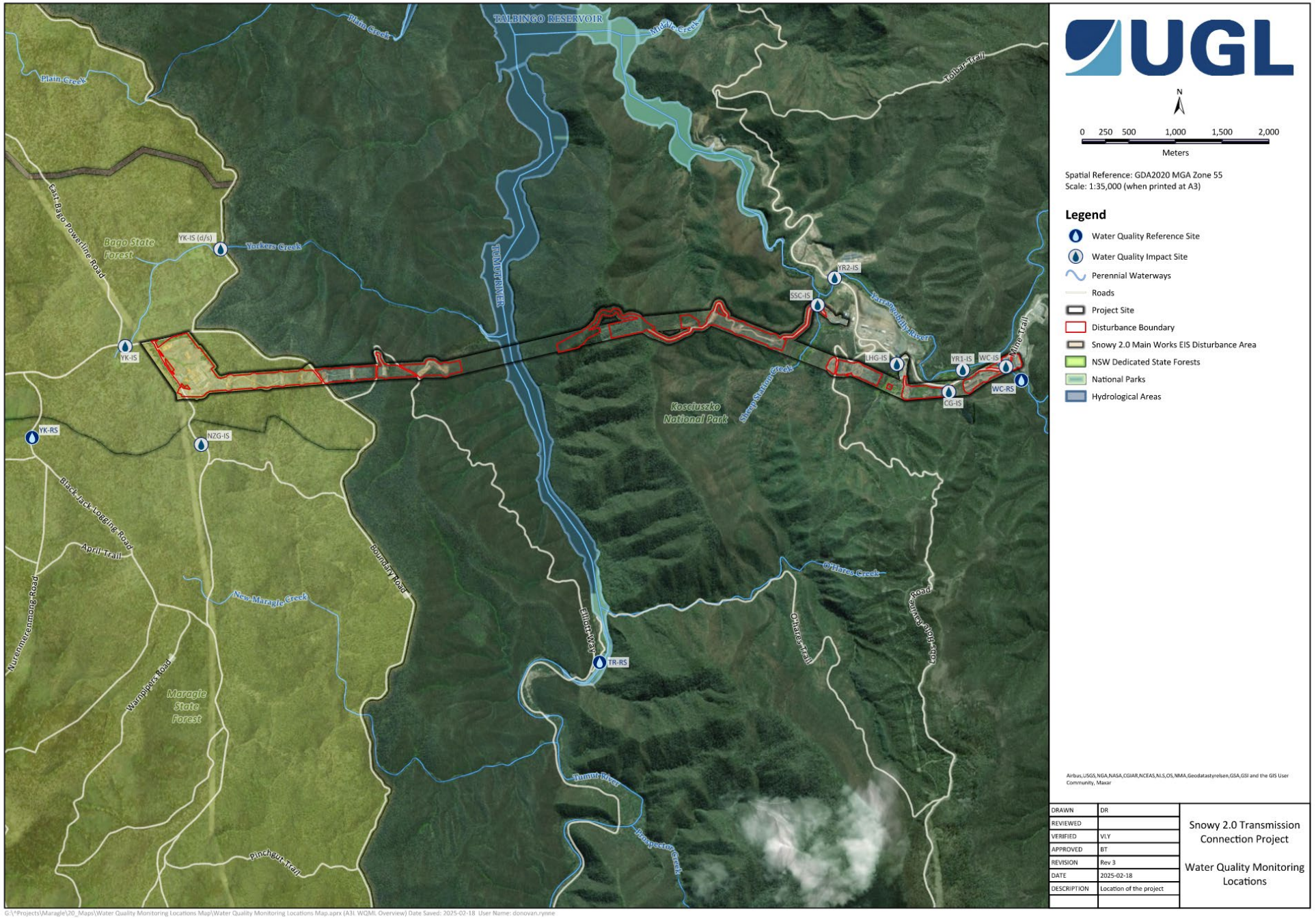

FIGURE 1 LOCALITY OF THE PROJECT AND SWQ MONITORING LOCATIONS

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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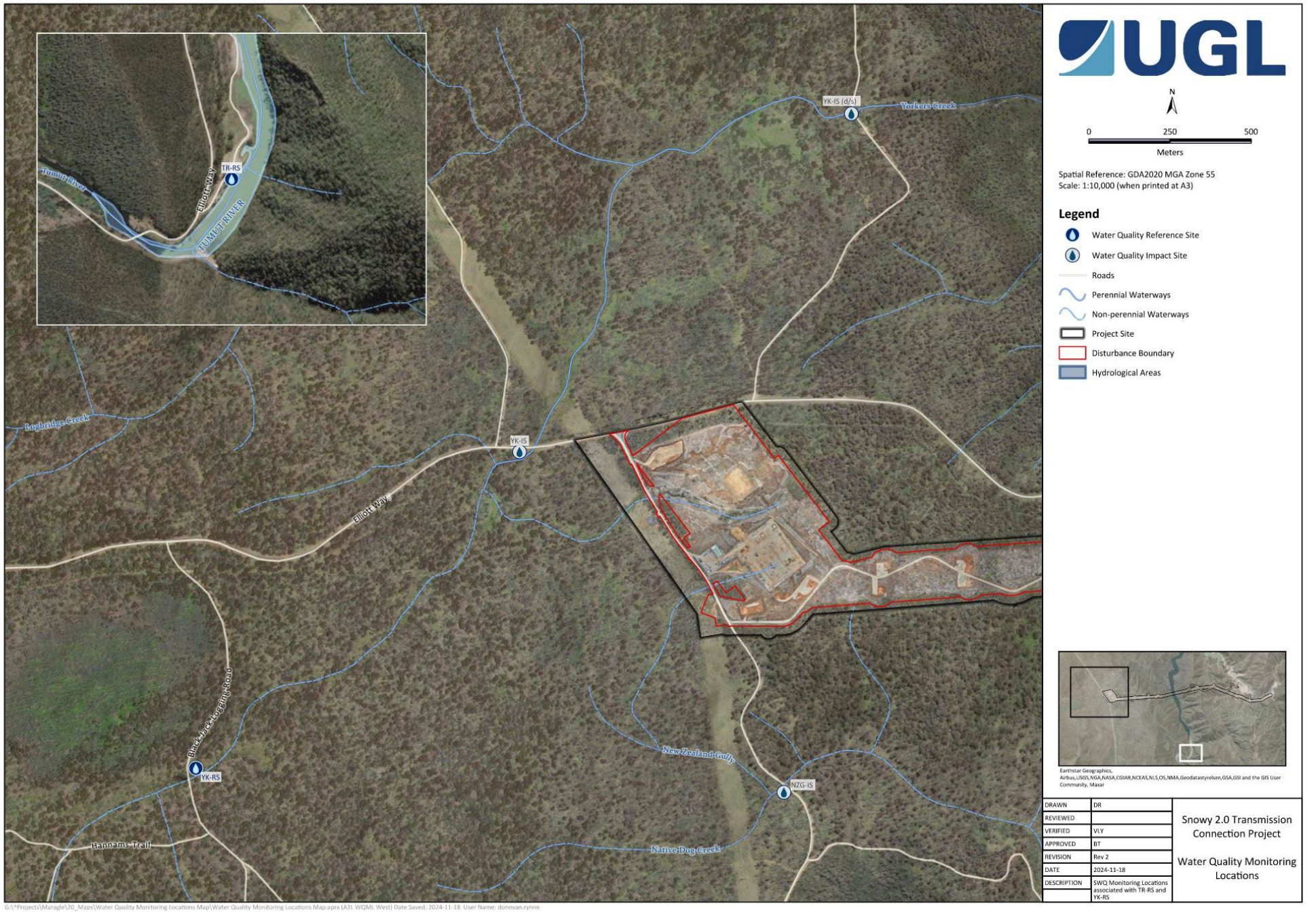

FIGURE 2 WATER QUALITY MONITORING LOCATIONS ASSOCIATED WITH REFERENCE SITE YR-RS AND TR-RS IN RELATION TO THE PROJECT

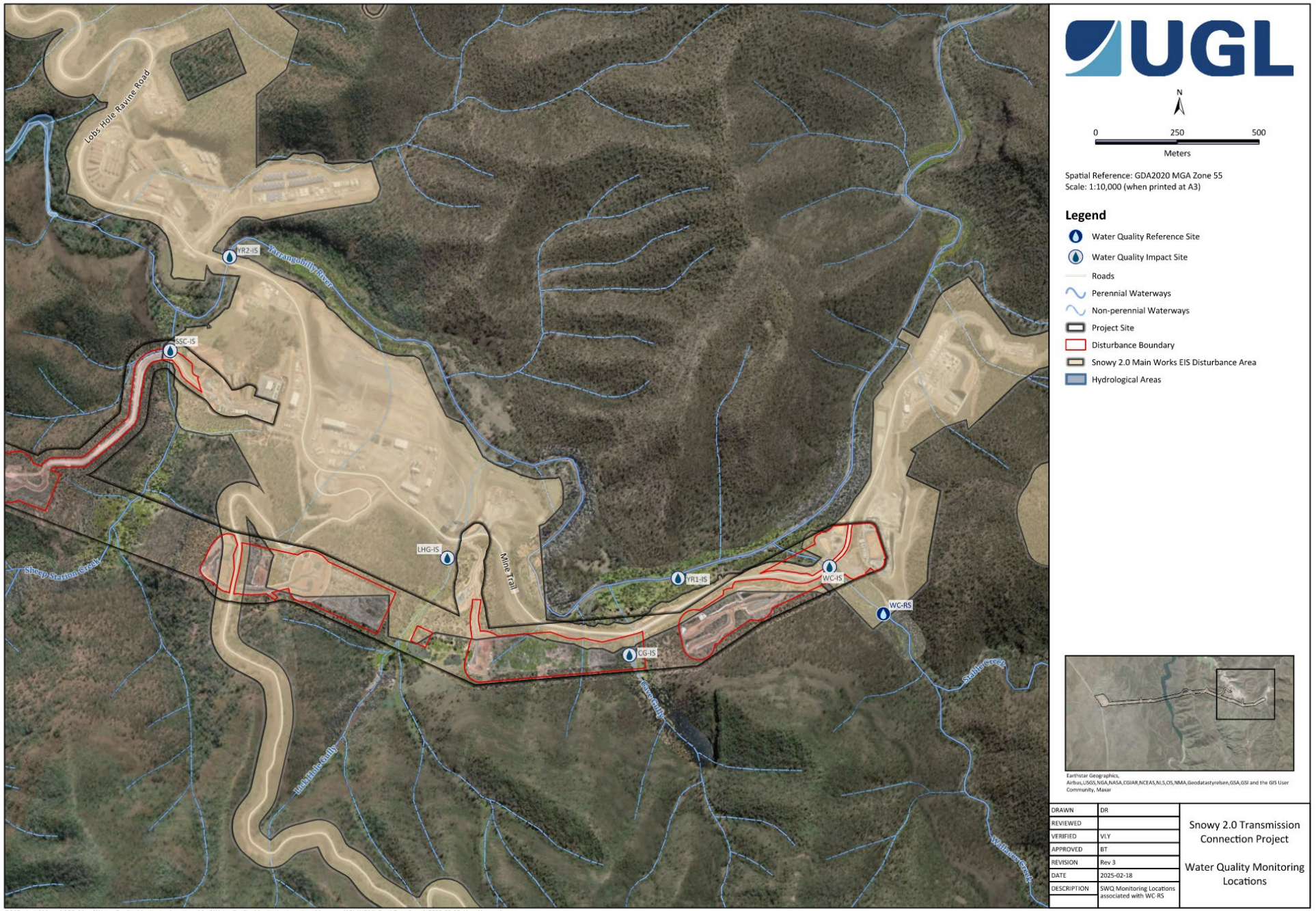

FIGURE 3 WATER QUALITY MONITORING LOCATIONS ASSOCIATED WITH REFERENCE SITE WC-RS IN RELATION TO THE PROJECT

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 MAY 2025 MONITORING

SW sampling was undertaken at 10 monitoring locations from 19 May 2025. Two monitoring locations CG-IS and SSC-IS were dry or had no flow 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.

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5.1 Observations

Field observations during sampling are summarised in Table 3.

Table 3 Field observations during sampling

FIELD OBSERVATIONS		
Date	19 May 2025	
Weather	The weather forecast for 19 May 2025 was 5.7°C with 0% chance of <1millimetres (mm) of rainfall. The previous 48 hours were fine and sunny and experienced 0.00mm of rainfall across 17 and 18 May 2025. At the time of sampling, the weather was fine and sunny.	
ID	**Observations**	**Photo**
WC-RS	• Low water volume and flow rate. • Water clear with no visible discolouration. • Presence of sheen on water contributed by organic decomposition. • Presence of aquatic vegetation (including algae and moss). • Presence of vegetative detritus. • Rocky and eroded banks including exposed roots from a large tree. • Riparian vegetation consists of ground cover species, shrubs and trees. • Moderate weed density, including blackberry (*Rubus fruticosus*).	

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FIELD OBSERVATIONS

Date	19 May 2025
Weather	The weather forecast for 19 May 2025 was 5.7°C with 0% chance of <1millimetres (mm) of rainfall. The previous 48 hours were fine and sunny and experienced 0.00mm of rainfall across 17 and 18 May 2025. At the time of sampling, the weather was fine and sunny.

ID	Observations	Photo
WC-IS	• Low water volume and high flow rate. • Water clear with no visible discolouration. • Presence of aquatic invertebrates and vegetation in water channel. • Presence of vegetative detritus in waterbody. • Rocky and undercut banks present. • Riparian vegetation comprised of trees and grass. • High weed density, including blackberry (*Rubus fruticosus*). • Monitoring location is situated adjacent to bridge and Mine Trail Road which is frequently used by snowy 2.0 vehicles, plant and machinery.	
CG-IS	• No flow; dry at the time of sampling.	

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FIELD OBSERVATIONS

Date	19 May 2025
Weather	The weather forecast for 19 May 2025 was 5.7°C with 0% chance of <1millimetres (mm) of rainfall. The previous 48 hours were fine and sunny and experienced 0.00mm of rainfall across 17 and 18 May 2025. At the time of sampling, the weather was fine and sunny.

ID	Observations	Photo
YR1-IS	• low water volume and high flow rate. • Water clear with no visible discolouration. • Presence of sheen on water surface contributed to by organic decomposition. • Presence of aquatic vegetation (including algae) in channel. • Presence of vegetative detritus. • Rocky banks with sections of exposed soil along upper bank areas. • Riparian vegetation consists of groundcover species, shrubs and trees. • Moderate weed density including thistle (*Cirsium spp.*) and blackberry (*Rubus fruticosus*)	
LHG-IS	• Low water volume and flow rate. • Water with brown—milky tinge. • Presence of odour. • Presence of aquatic vegetation (including algae) within channel. • Presence of sheen on water surface contributed by organic decomposition. • Presence of silt and grass seed husks on stream bed. • Rocky bed with no defined banks. • Overgrown vegetation, predominantly groundcover species. • Monitoring location is adjacent to Mine Trail Road which is frequently used by Snowy 2.0 vehicles, plant and machinery.	

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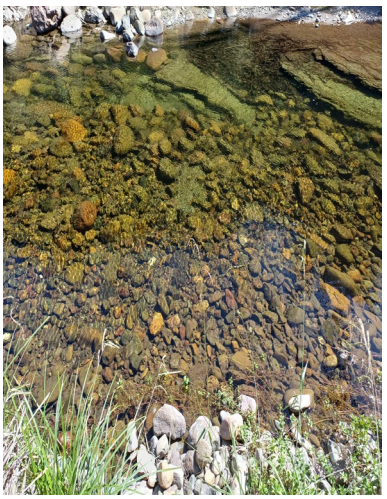
FIELD OBSERVATIONS

Date	19 May 2025
Weather	The weather forecast for 19 May 2025 was 5.7°C with 0% chance of <1millimetres (mm) of rainfall. The previous 48 hours were fine and sunny and experienced 0.00mm of rainfall across 17 and 18 May 2025. At the time of sampling, the weather was fine and sunny.

ID	Observations	Photo
YR2-IS	• Low water volume and high flow rate. • Water clear with no visible discolouration. • Presence of aquatic invertebrates and vegetation (including algae and moss) in channel. • Presence of vegetative detritus • Rocky bed with no defined banks. • Riparian vegetation consists of groundcover species, shrubs and trees. • Moderate weed density, including blackberry (*Rubus fruticosus*). • Presence of road washout from Mine Trail Road in vegetation adjacent to river.	
SSC-IS	• No flow; dry at the time of sampling.	

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FIELD OBSERVATIONS

Date	19 May 2025
Weather	The weather forecast for 19 May 2025 was 5.7°C with 0% chance of <1millimetres (mm) of rainfall. The previous 48 hours were fine and sunny and experienced 0.00mm of rainfall across 17 and 18 May 2025. At the time of sampling, the weather was fine and sunny.

ID	Observations	Photo
TR-RS	• Low water volume and flow rate. • Water clear with no visible discolouration. • Presence of aquatic invertebrates and vegetation in water channel. • Presence of vegetative detritus in waterbody. • Sandy bed and rocky banks. • Riparian vegetation consists of groundcover and trees. • Presence of landslips. • Monitoring location is situated adjacent to publicly accessible O'Hares Campground and Talbingo Reservoir ancillary infrastructure.	
YK-RS	• Low water volume and flow rate. • Water murky with brown tinge. • Presence of sheen on water surface contributed by organic decomposition. • Presence of aquatic vegetation in water channel. • Presence of vegetative detritus in waterbody. • Eroded and undercut banks with presence of mica. • Riparian vegetation consists of groundcover species and trees. • Low weed density, including blackberry (*Rubus fruticosus*). • Presence of kangaroo scat. • Monitoring location is adjacent to publicly accessible 4WD track.	

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FIELD OBSERVATIONS

Date	19 May 2025	
Weather	The weather forecast for 19 May 2025 was 5.7°C with 0% chance of <1millimetres (mm) of rainfall. The previous 48 hours were fine and sunny and experienced 0.00mm of rainfall across 17 and 18 May 2025. At the time of sampling, the weather was fine and sunny.	
ID	**Observations**	**Photo**
YK-IS (D/S)	• Low water volume and moderate flow rate. • Clear water with slight yellow and brown tinge observed in water. • Presence of aquatic vegetation (including algae) and invertebrates in water channel. • Presence of vegetative detritus observed in waterbody. • Evidence of undermined banks with presence of mica. • Presence of potential burrows in bank. • Riparian vegetation consisted of groundcover species and trees. • Low weed density, including blackberry (*Rubus fruticosus*). • Monitoring location is situated adjacent to publicly accessible 4WD track.	
NZG-IS	• Low water volume and flow rate. • Slight yellow tinge observed in water. • Presence of aquatic vegetation and invertebrates in water channel. • Presence of organic detritus in waterbody. • Evidence of eroded and undermined banks. • Pebbly stream bed with the presence of mica. • Riparian vegetation consists of groundcover species and trees. • Presence of overhanging vegetation. • High weed density, including blackberry (*Rubus fruticosus*). • Monitoring location is situated adjacent to publicly accessible 4WD track.	

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FIELD OBSERVATIONS

Date	19 May 2025	
Weather	The weather forecast for 19 May 2025 was 5.7°C with 0% chance of <1millimetres (mm) of rainfall. The previous 48 hours were fine and sunny and experienced 0.00mm of rainfall across 17 and 18 May 2025. At the time of sampling, the weather was fine and sunny.	
ID	**Observations**	**Photo**
YK-IS	• Low water volume and flow rate. • Murky water with yellow and brown tinge observed. • Presence of aquatic vegetation and invertebrates in water channel. • Presence of vegetative detritus in waterbody. • Eroded banks with the presence of mica in stream bed. • Presence of overhanging vegetation. • Riparian vegetation consists of groundcover species, shrubs and trees. • Low weed density. • Monitoring location is situated adjacent to Elliot 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

During the May 2025 sampling period, all three locations (Yarrangobilly Catchment, Talbingo Reservoir and Yorkers Creek Catchment) recorded a decrease in temperature (°C) compared to April 2025 (Figure 4—6). Yarrangobilly Catchment recorded a mean temperature of 10.4°C compared to April 2025 (15.2°C) (Figure 4). Tr-RS from the Talbingo Reservoir recorded a mean temperature of 12.3°C (Figure 5). Yorkers Creek Catchment recorded a mean temperature of 4.5°C (Figure 6).

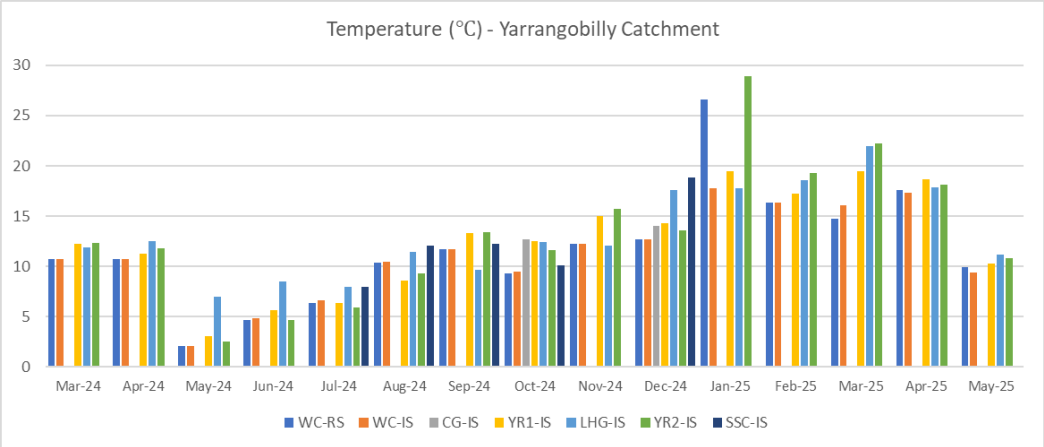

FIGURE 4 : TEMPERATURE FOR YARRANGOBILLY RIVER CATCHMENT

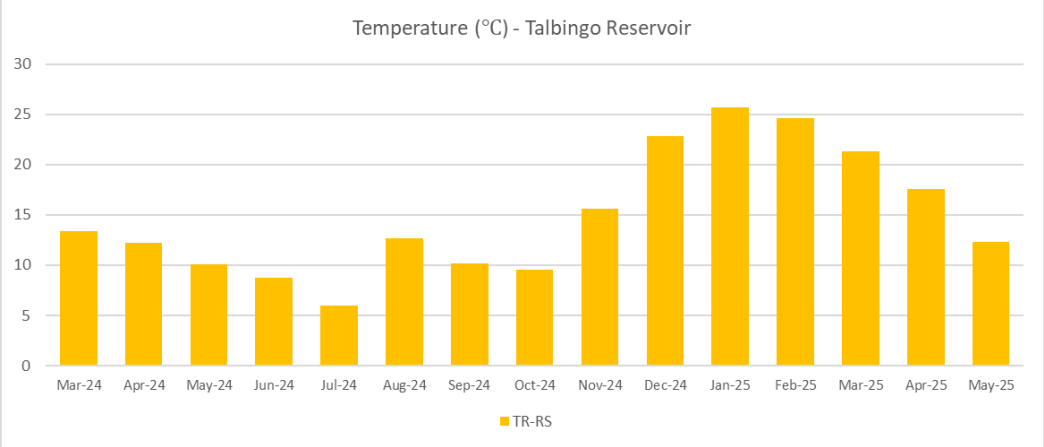

FIGURE 5: TEMPERATURE FOR TALBINGO RESERVOIR

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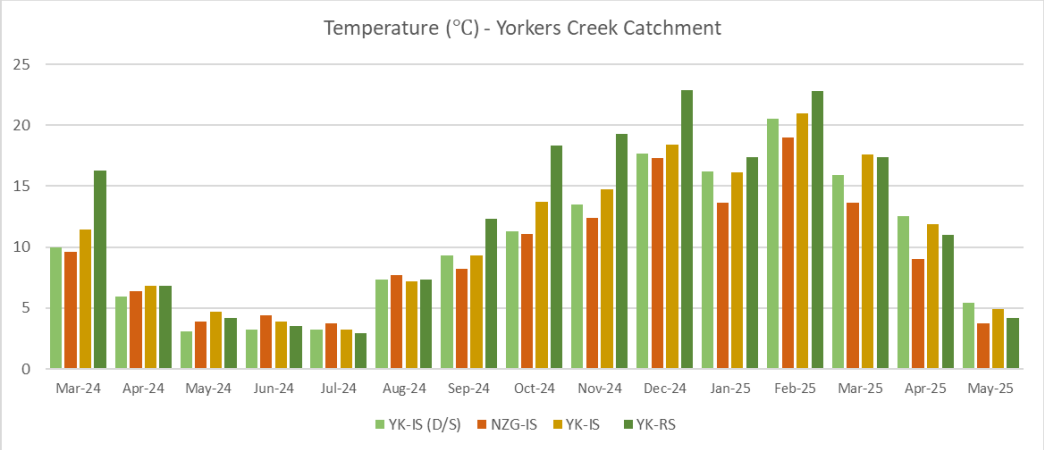

FIGURE 6: TEMPERATURE FOR YORKERS CREEK CATCHMENT

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5.2.1.2 pH

During the May 2025 sampling period, all three catchments maintained similar results to April 2025 (Figure 7—9). YR2-IS from the Yarrangobilly Catchment recorded a marginal increase to 8.87pH from the April 2025 result of 8.46pH (Figure 7). TR-RS from the Talbingo Reservoir met the SSGV (Figure 8). All Yorkers Creek Catchment sampling locations exceeded the Dec—May SSGV (Figure 9).

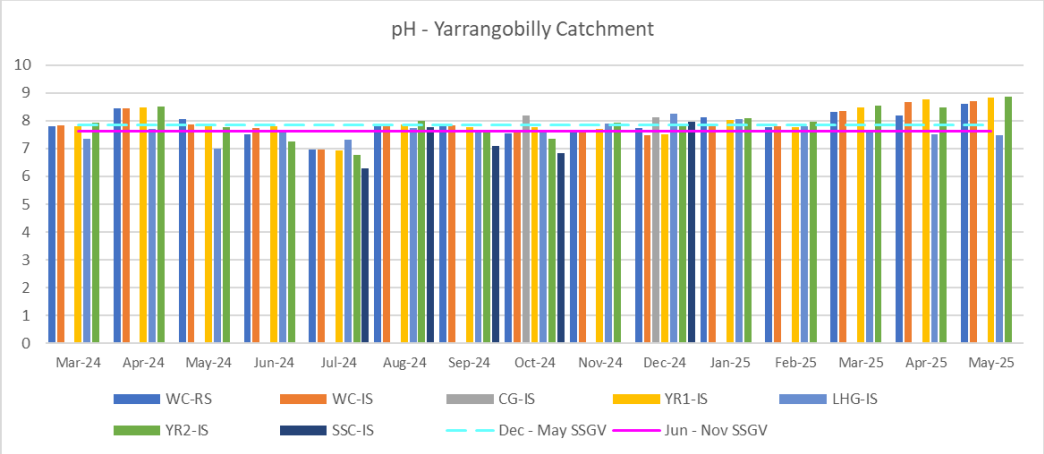

FIGURE 7: PH FOR YARRANGOBILLY RIVER CATCHMENT

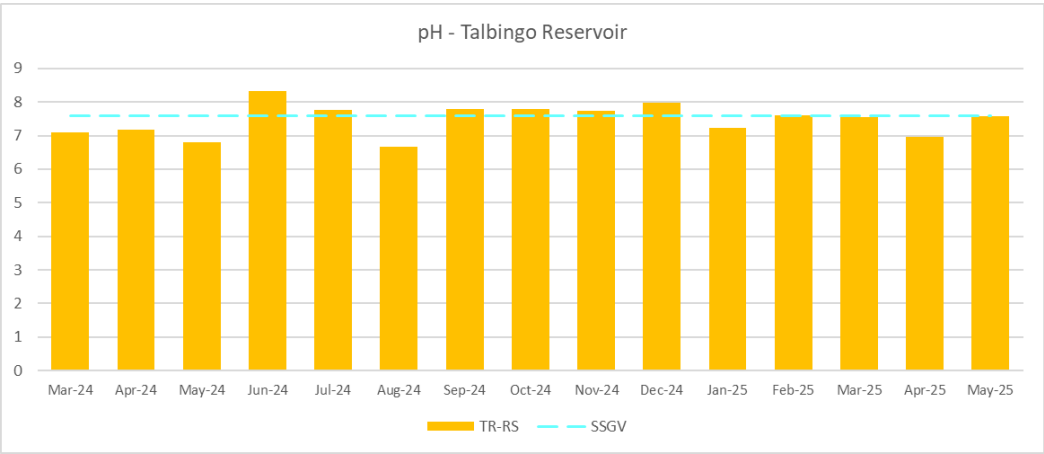

FIGURE 8: PH FOR TALBINGO RESERVOIR

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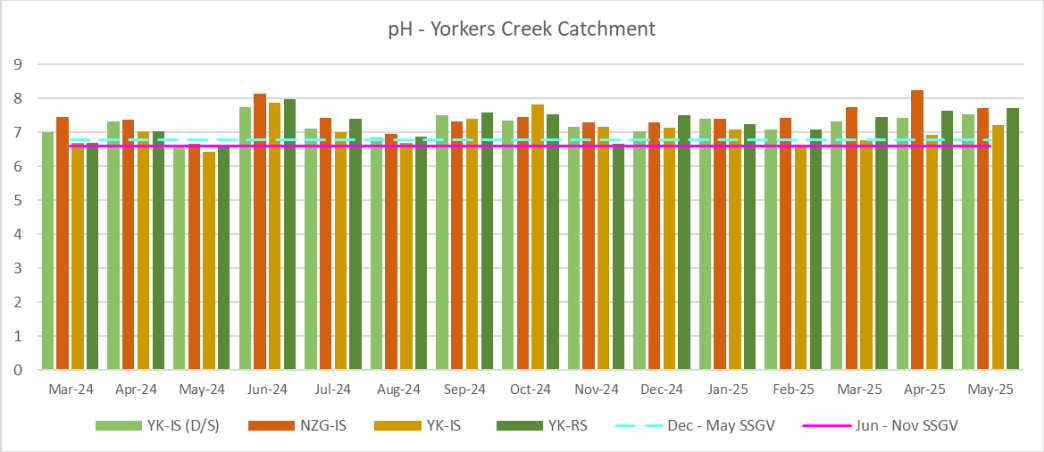

FIGURE 9: PH FOR YORKERS CREEK CATCHMENT

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5.2.1.3 Dissolved Oxygen

During the May 2025 sampling period, DO % maintained generally consistent results compared to April 2025 results at the Yarrangobilly Catchment and Yorkers Creek Catchment (Figure 10 and 12). LHG-IS from the Yarrangobilly Catchment reduced to 37.1% (Figure 10). TR-RS from the Talbingo Reservoir increased from the April 2025 result of 67.6% to 88.6% (Figure 11).

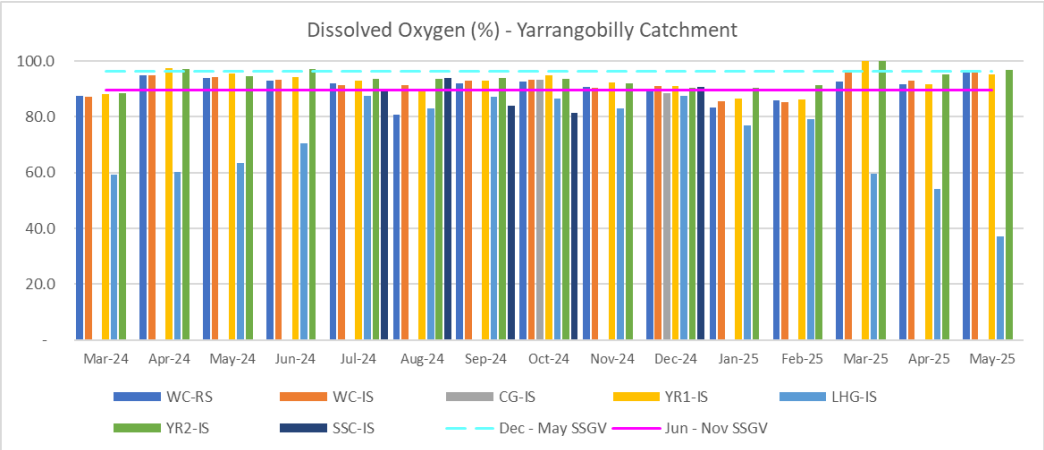

FIGURE 10: DO FOR YARRANGOBILLY RIVER CATCHMENT

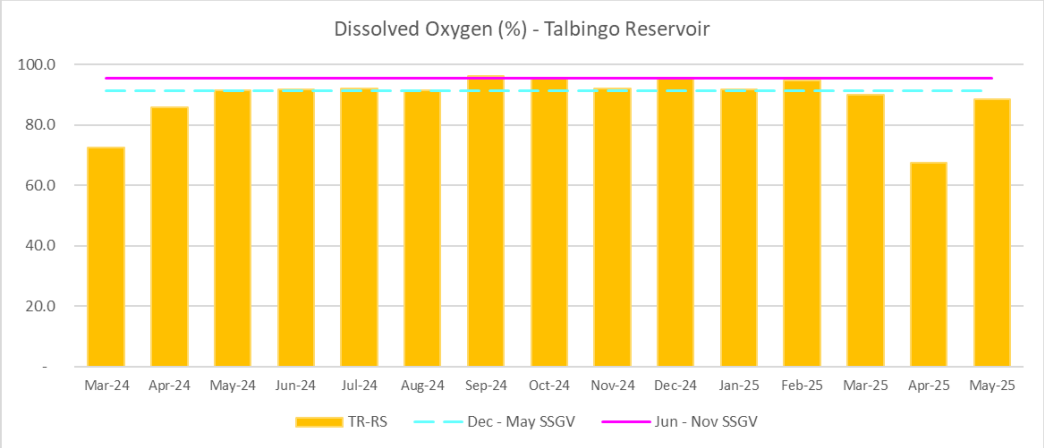

FIGURE 11: DO FOR TALBINGO RESERVOIR

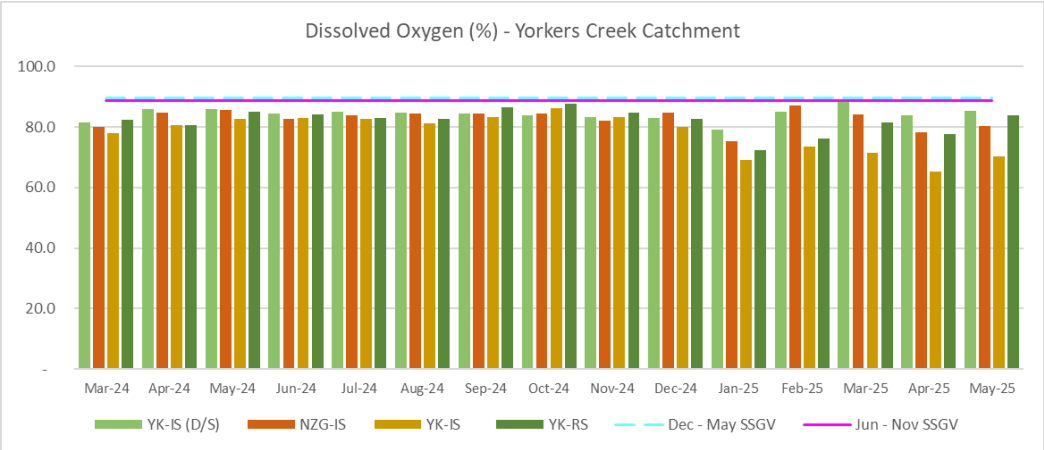

FIGURE 12: DO FOR YORKERS CREEK CATCHMENT

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5.2.1.4 Specific Conductance

During the May 2025 sampling period, specific conductance (µS/cm) results retained similar values to April 2025 (Figure 13—15). The only exceedance of the Dec—May SSGV value was at LHG-IS from the Yarrangobilly Catchment (134 µS/cm) (Figure 13).

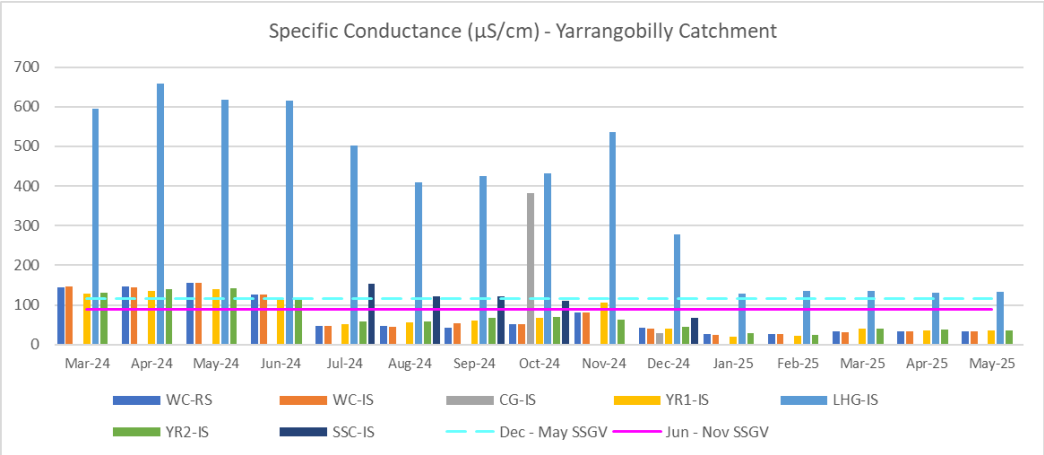

FIGURE 13: SPC FOR YARRANGOBILLY RIVER CATCHMENT

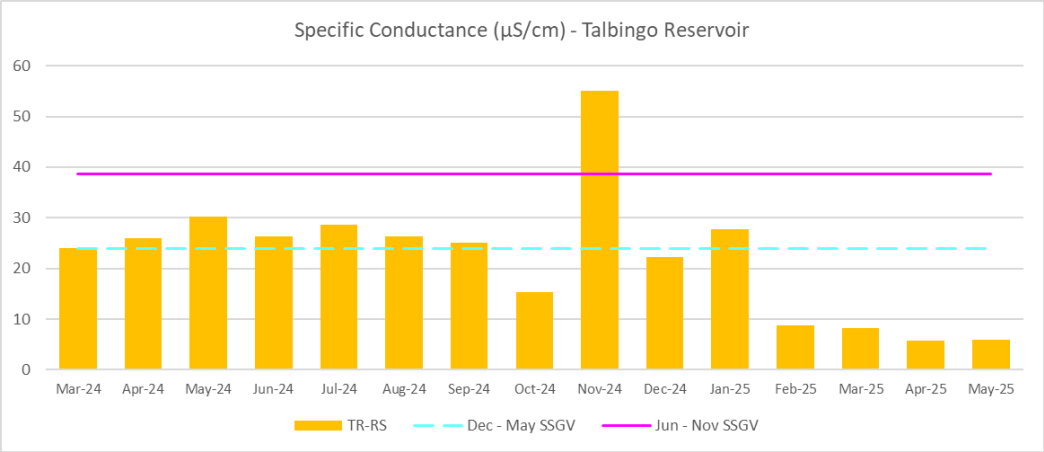

Figure 14: SPC for Talbingo Reservoir

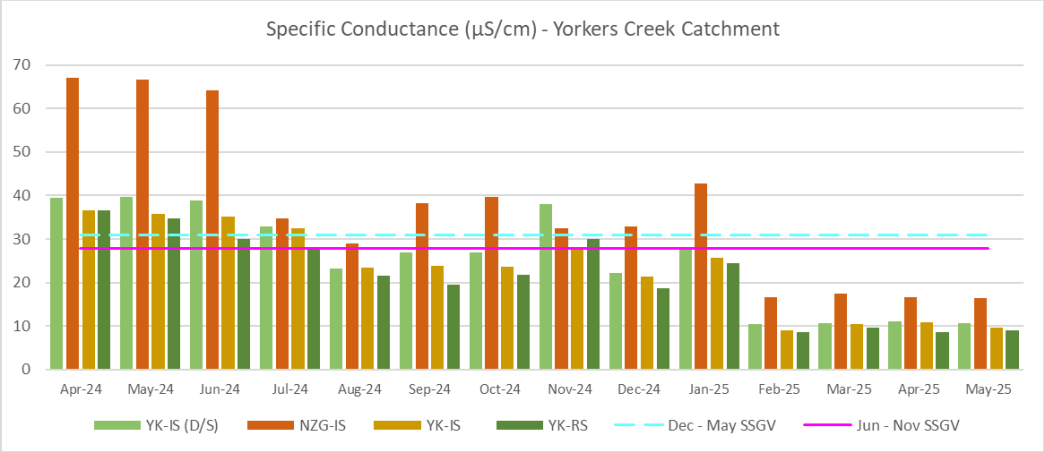

FIGURE 15: SPC FOR YORKERS CREEK CATCHMENT

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5.2.1.5 Electrical Conductivity

During the May 2025 sampling period, all sampling locations recorded results within the Dec—May SSGV value (Figure 16—18).

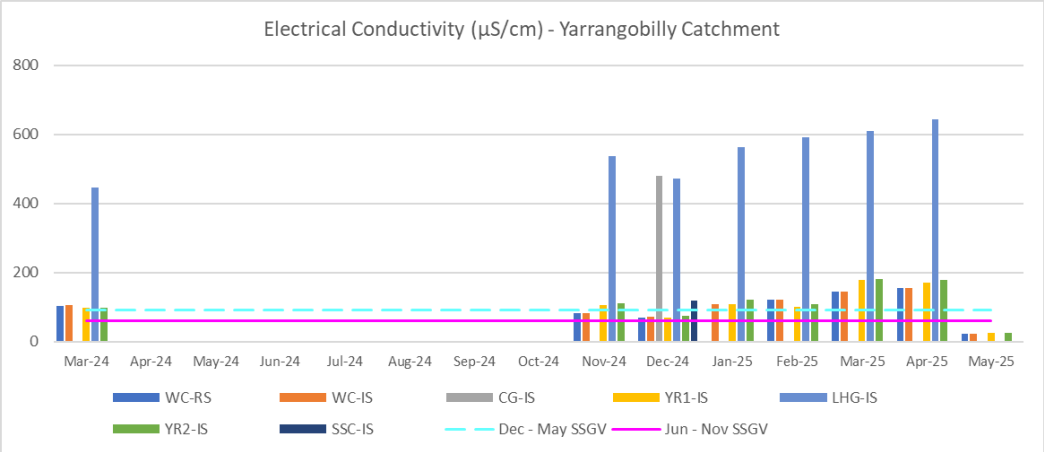

FIGURE 16: EC FOR YARRANGOBILLY RIVER CATCHMENT

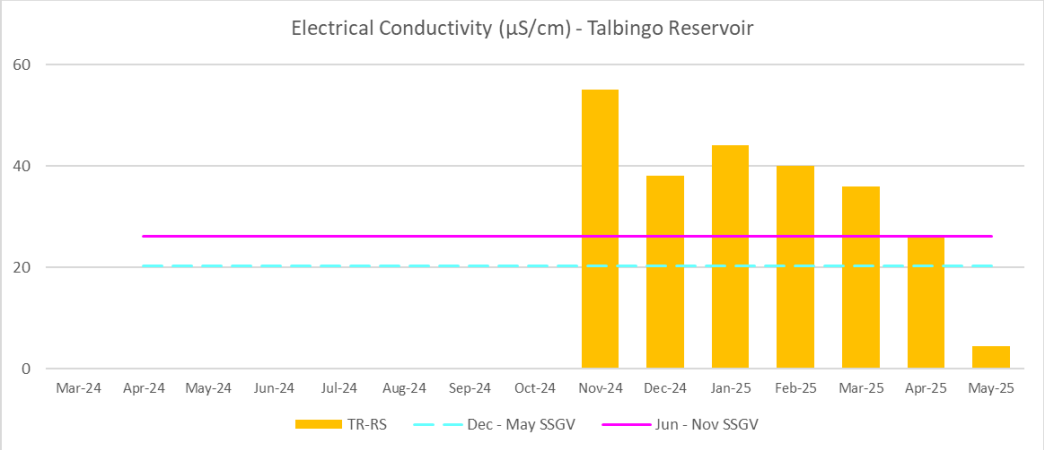

Figure 17: EC for Talbingo Reservoir

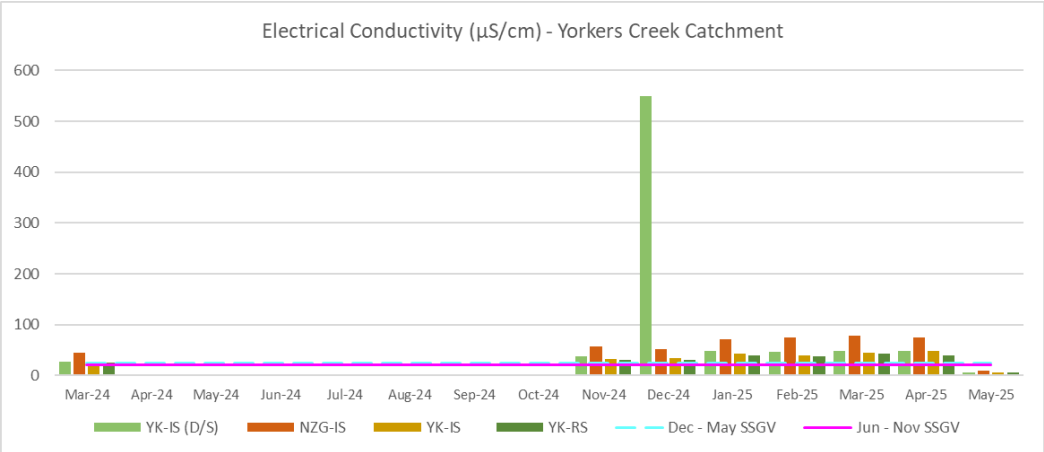

FIGURE 18: EC FOR YORKERS CREEK CATCHMENT

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5.2.1.6 Turbidity

In May 2025, results retained similar values to April 2025 at the Yarrangobilly Catchment, with an exceedance of the Dec—May SSGV recorded at LHG-IS (71.43NTU) (Figure 19). A marginal exceedance of the Dec—May SSGV was recorded at TR-RS from the Talbingo Reservoir (Figure 20). A marginal exceedance of the Dec—May SSGV was recorded at YK-RS (11.81NTU) from the Yorkers Creek Catchment (figure 21). Each graph is scaled to 50NTU for overall presentation closer to the SSGV value.

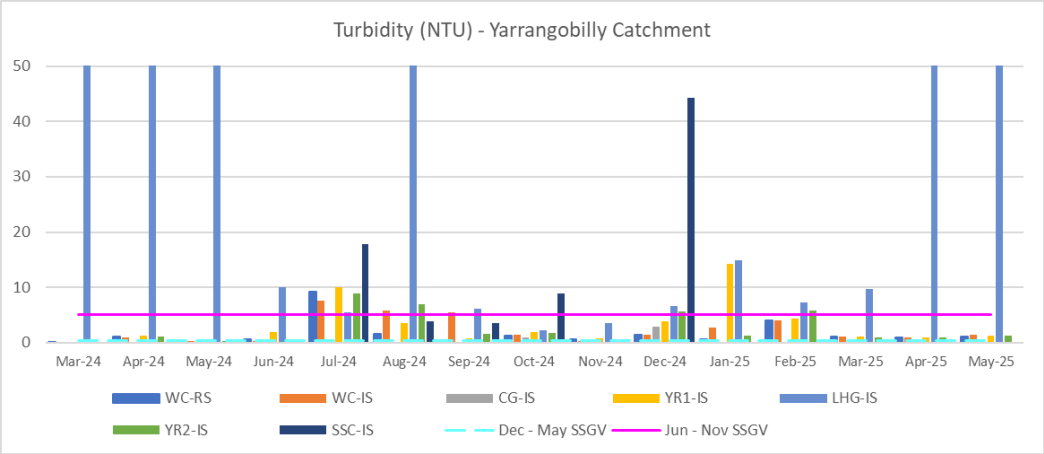

FIGURE 19: TURBIDITY FOR YARRANGOBILLY RIVER CATCHMENT

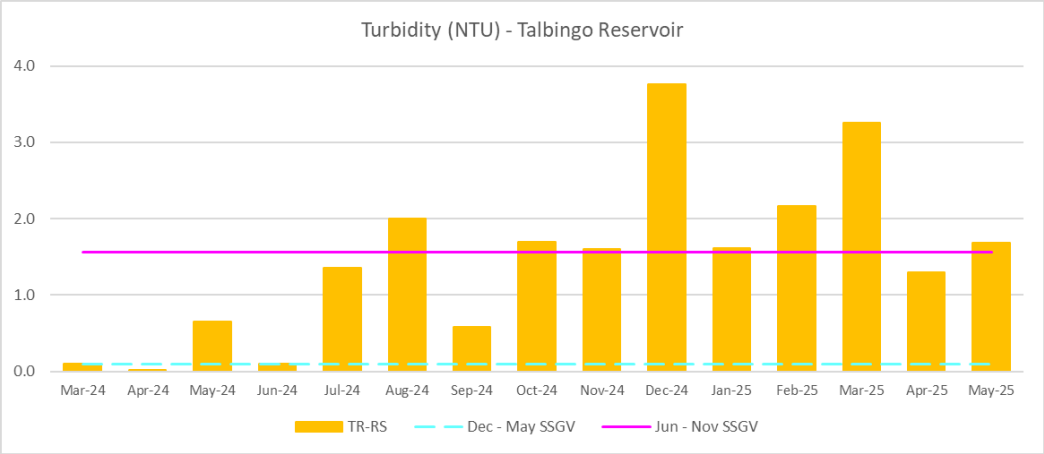

Figure 20: Turbidity for Talbingo Reservoir

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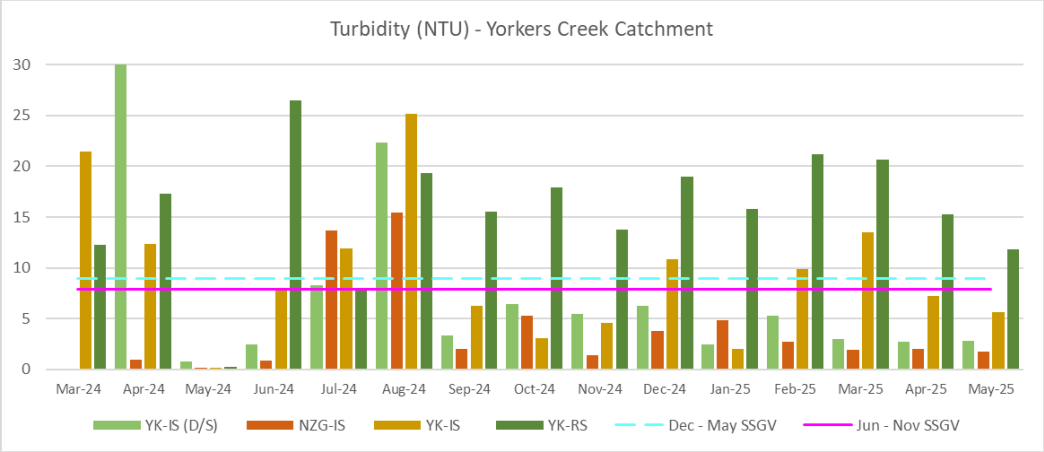

FIGURE 21: TURBIDITY FOR YORKERS CREEK CATCHMENT

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5.2.1.7 Total Suspended Solids

Varied results for Total Suspended Solids (mg/L) were recorded across each sampling location (Figure 22—24). A notable increase in TSS was recorded at LHG-IS (131mg/L) from the Yarrangobilly Catchment (Figure 22). TR-RS from the Talbingo Reservoir maintained a result of 1mg/L From February—May 2025, continuing to exceed the 0.2mg/L SSGV (Figure 23). Yorkers Creek Catchment remained in exceedance of the Dec—May SSGV with the largest exceedance recorded from YK-RS (4mg/L) (Figure 24).

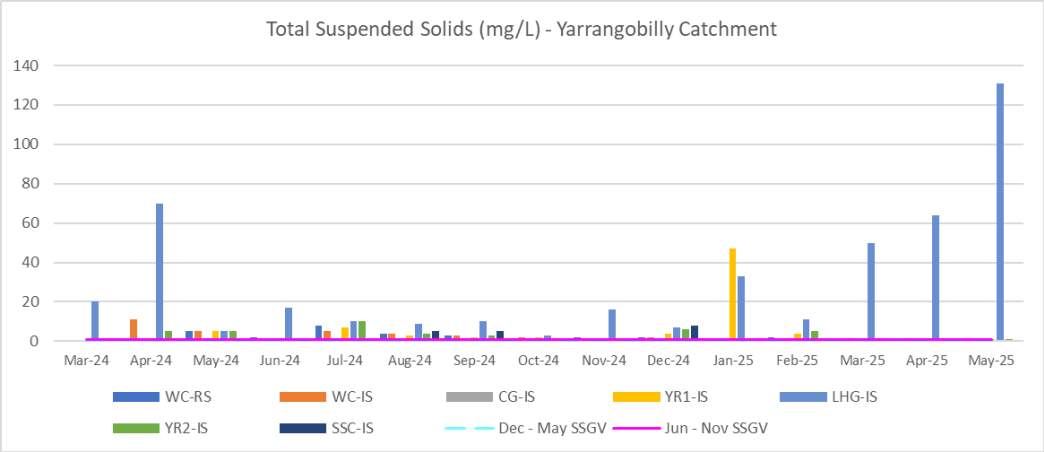

FIGURE 22: TSS FOR YARRANGOBILLY RIVER CATCHMENT

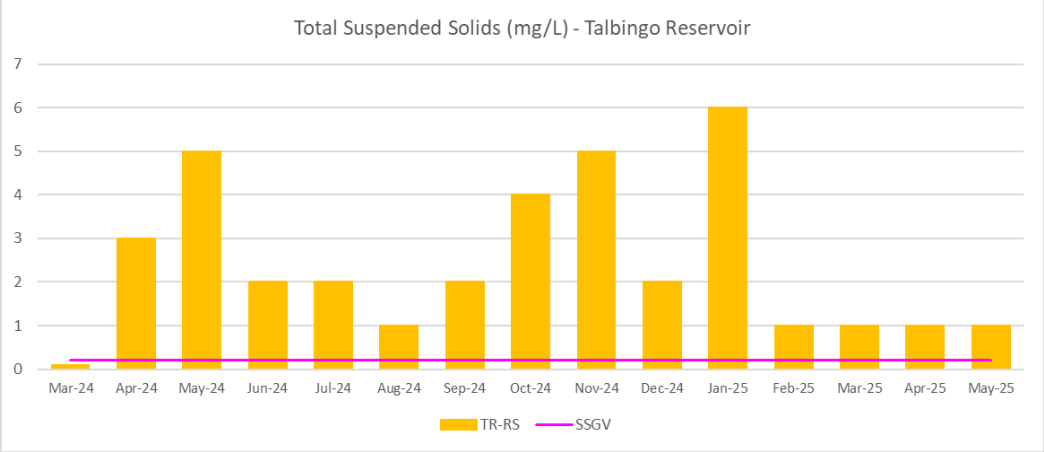

Figure 23: TSS for Talbingo Reservoir

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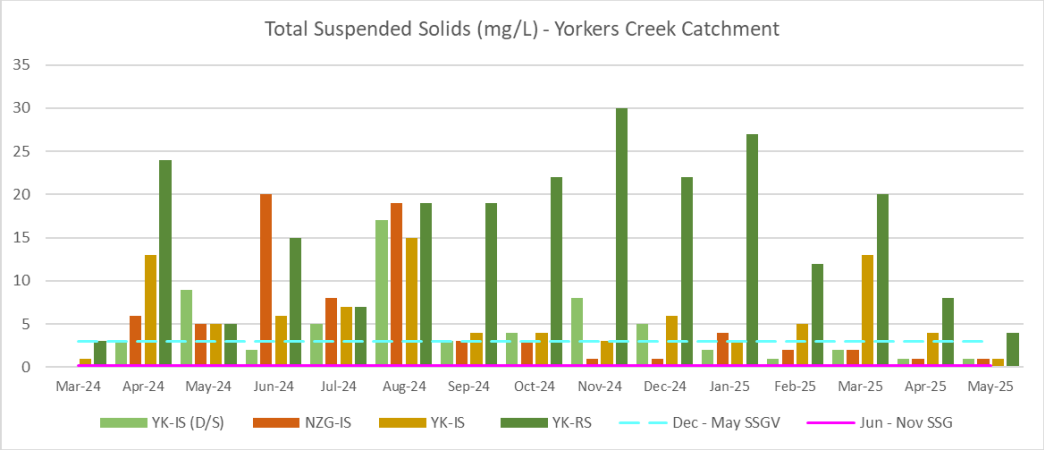

FIGURE 24: TSS FOR YORKERS CREEK CATCHMENT

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5.2.1.8 Total Dissolved Solids

Total dissolved solids (mg/L) results retained similar results from April 2025 (Figure 25—27). The greatest exceedance of the Dec—May SSGV was recorded at LHG-IS (406mg/L) from the Yarrangobilly Catchment (Figure 25). A decrease in results from April 2025 was recorded at TR-RS (16mg/L) from the Talbingo Reservoir (Figure 26). Results remained similar to April 2025 at Yorkers Creek Catchment (Figure 27).

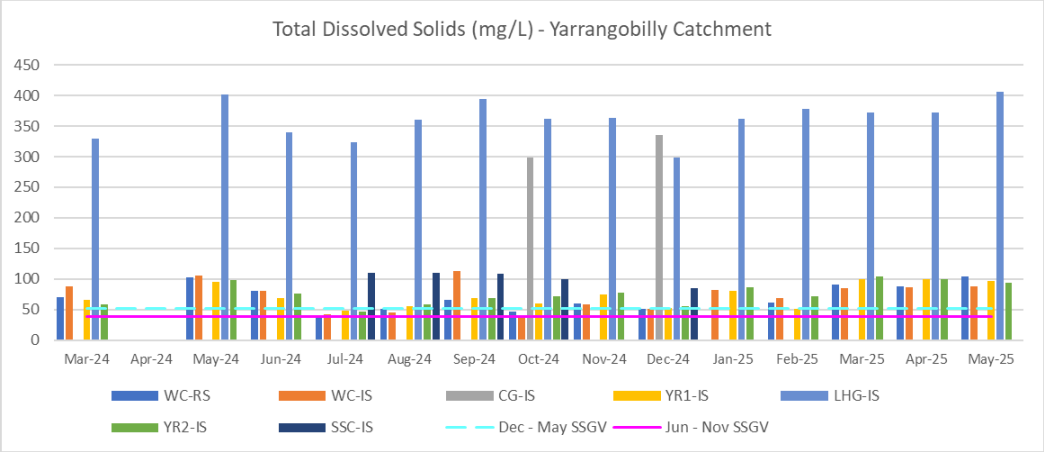

Figure 25 TDS for Yarrangobilly River Catchment

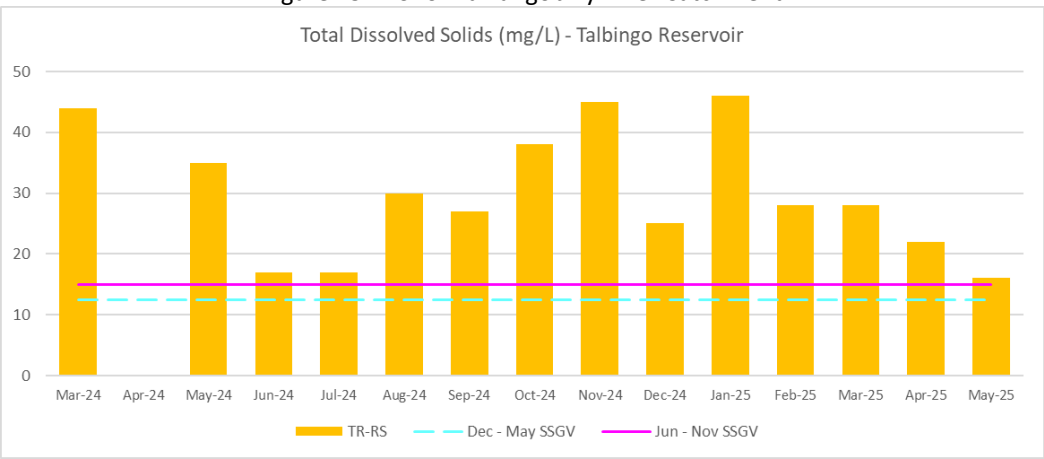

Figure 26 TDS for Talbingo Reservoir

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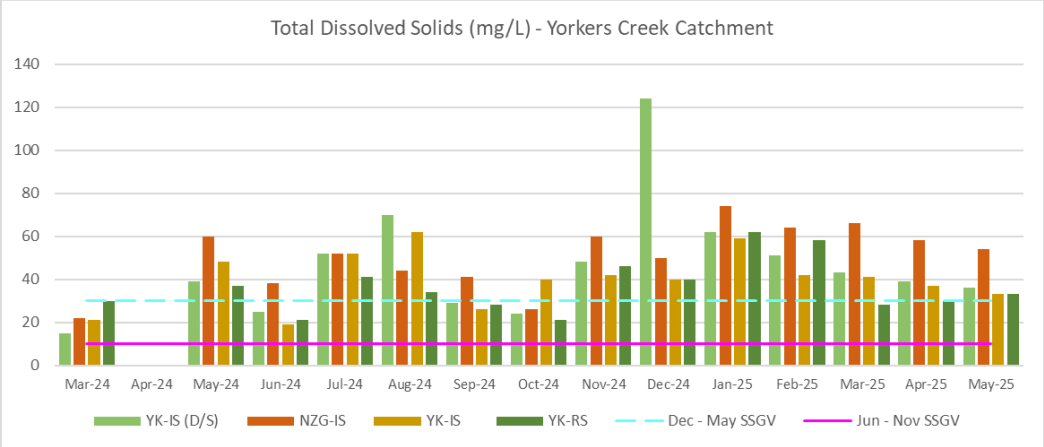

FIGURE 27 TDS FOR YORKERS CREEK CATCHMENT

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5.2.1.9 Redox

During the May 2025 sampling period, Redox (mV) results marginally decreased from April 2025 (Figure 28—30) excluding YK-IS from Yorkers Creek Catchment which decreased to 15.8mV (Figure 30).

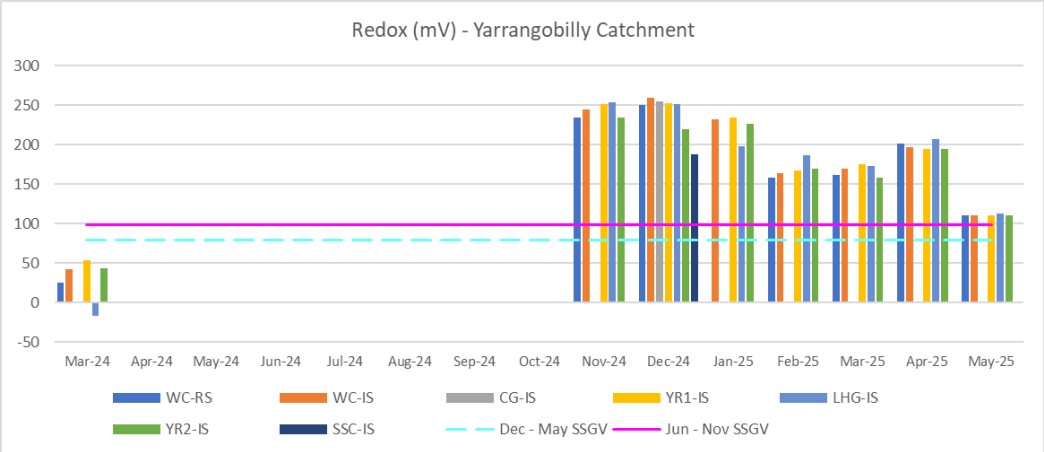

FIGURE 28: REDOX FOR YARRANGOBILLY RIVER CATCHMENT

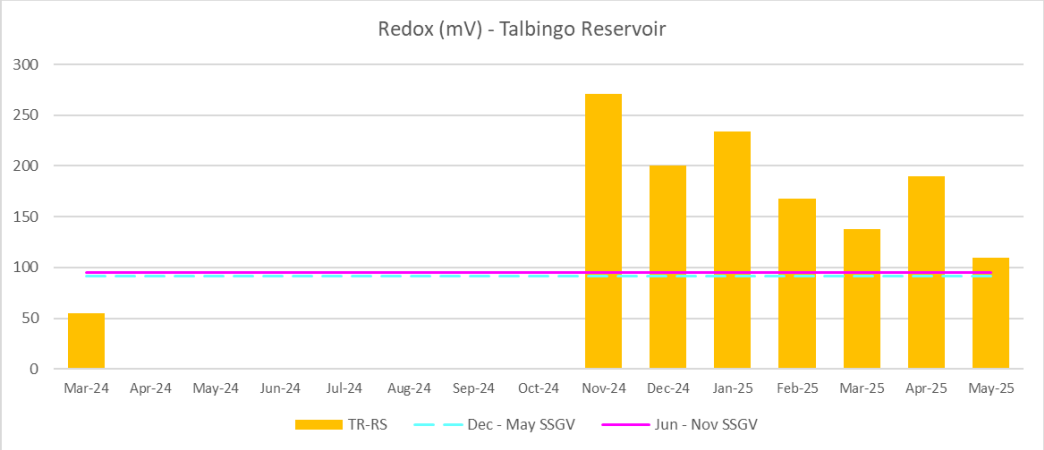

Figure 29: Redox for Talbingo Reservoir

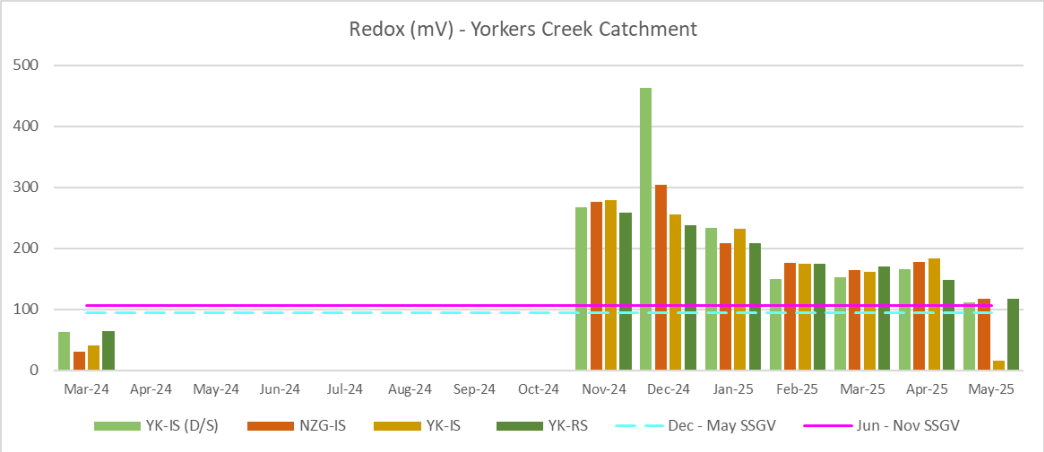

FIGURE 30: REDOX FOR YORKERS CREEK CATCHMENT

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5.2.1.10 Nitrogen Oxides

Nitrogen Oxide (mg/L) levels remained consistent with April 2025 (Figure 31—33) excluding WC-RS (2.5mg/L) from Yarrangobilly Catchment (Figure 31) and YK-RS (0.18mg/L) from Yorkers Creek Catchment (Figure 33), which exceeded the SSGV value.

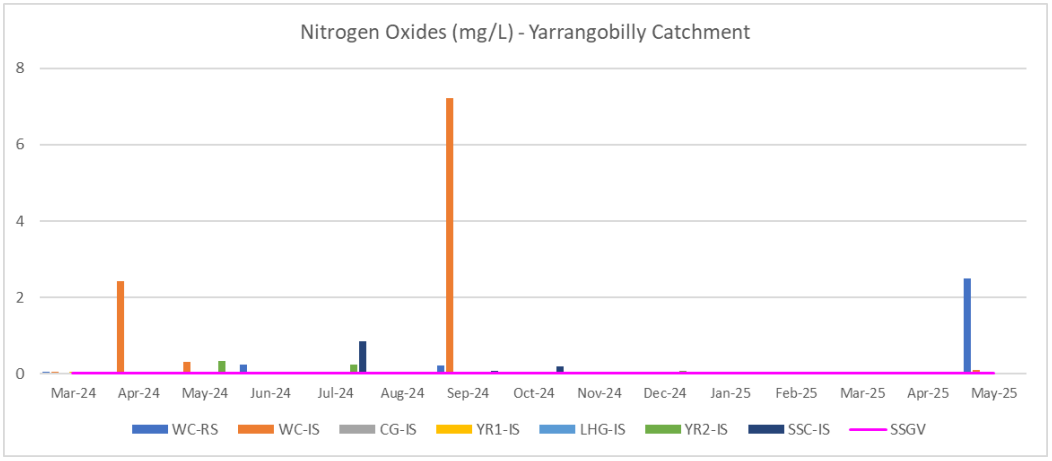

FIGURE 31: NITROGEN OXIDES FOR YARRANGOBILLY RIVER CATCHMENT

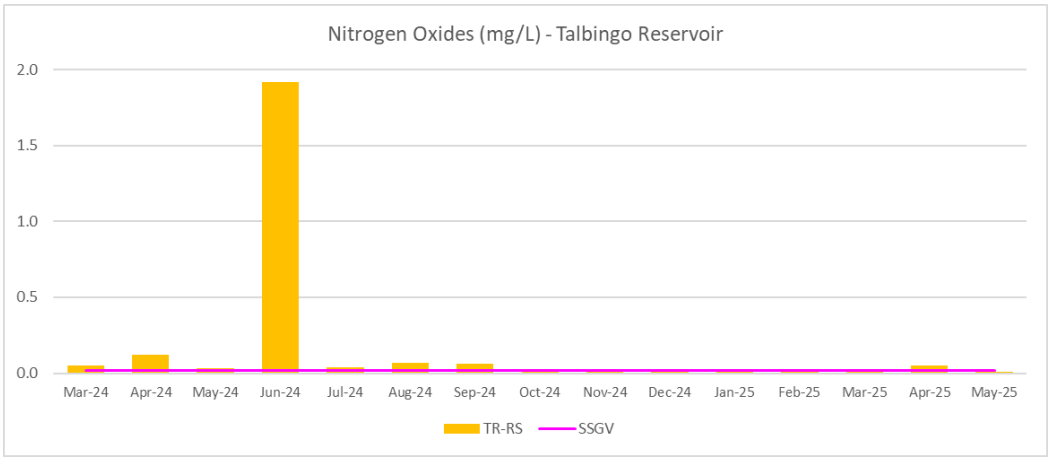

FIGURE 32: NITROGEN OXIDES FOR TALBINGO RESERVOIR

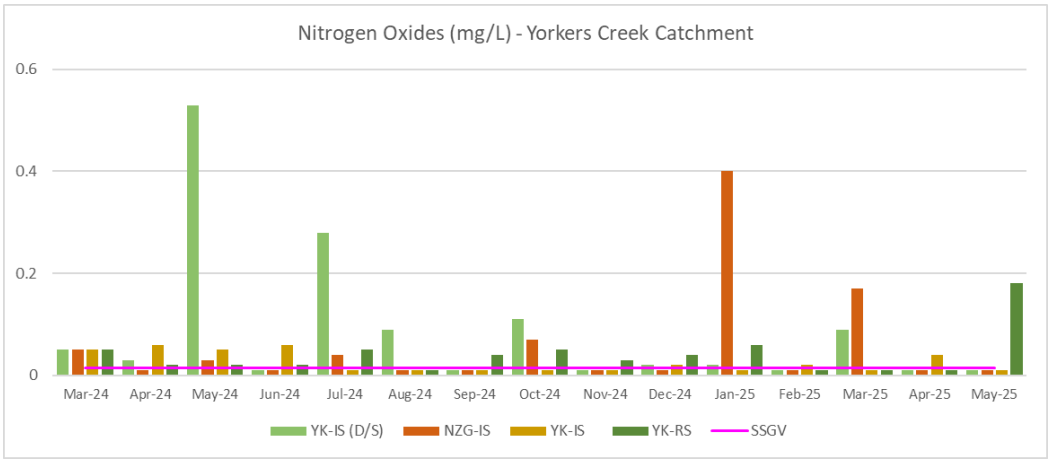

FIGURE 33: NITROGEN OXIDES FOR YORKERS CREEK CATCHMENT

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5.2.1.11 Ammonia

Ammonia (mg/L) concentrations varied across all three catchments during the May 2025 sampling period (Figure 34—36). YR1-IS (0.02mg/L) and LHG-IS (0.04mg/L) from the Yarrangobilly Catchment exceeded the SSGV. TR-RS (0.03mg/L) from the Talbingo Reservoir exceeded the SSGV (Figure 35). No exceedance was recorded at Yorkers Creek Catchment sampling locations (Figure 36).

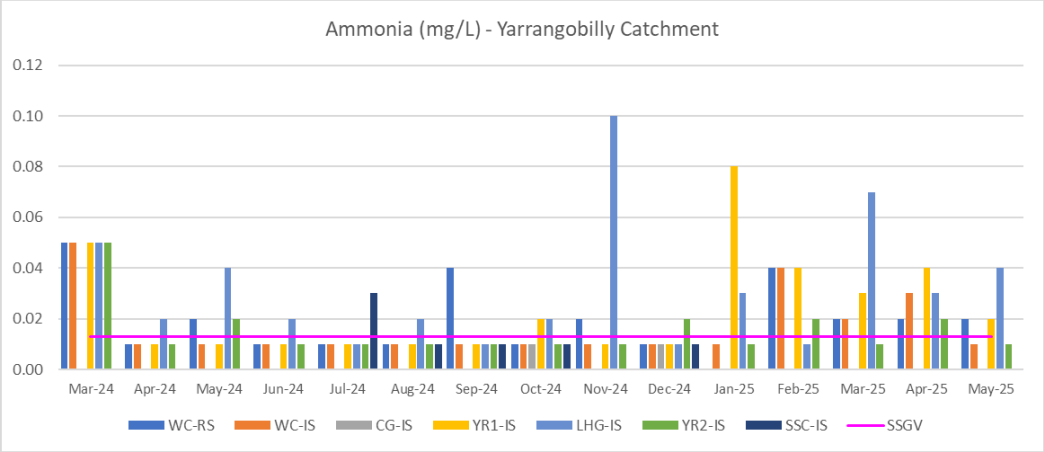

FIGURE 34: AMMONIA FOR YARRANGOBILLY RIVER CATCHMENT

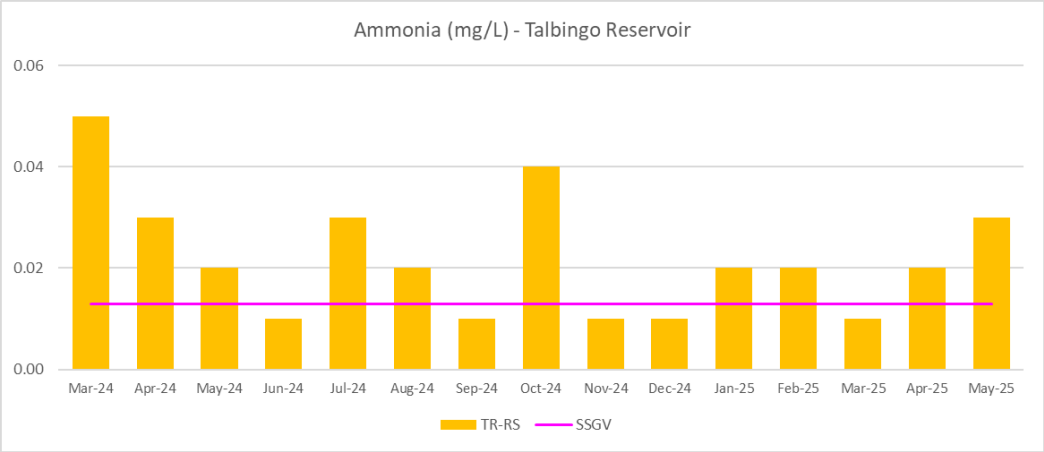

Figure 35: Ammonia for Talbingo Reservoir

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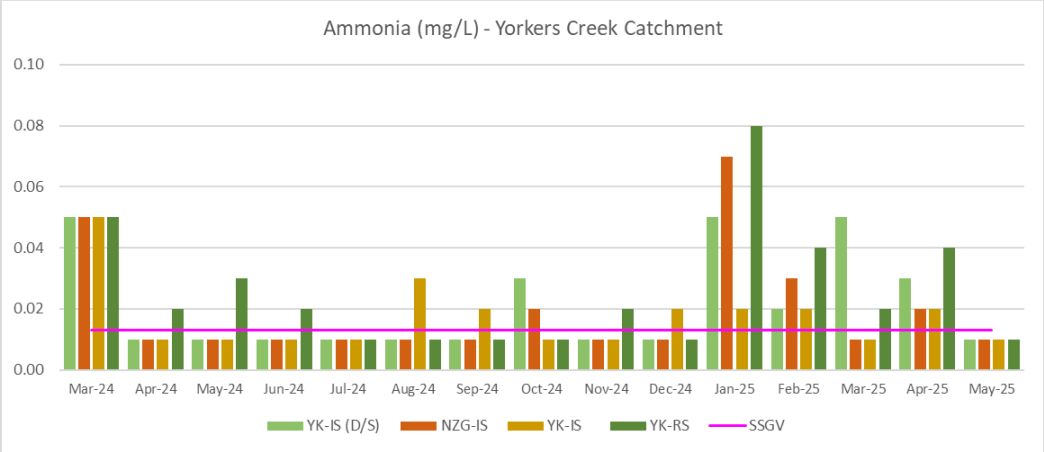

FIGURE 36: AMMONIA FOR YORKERS CREEK CATCHMENT

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5.2.1.12 Cyanide

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

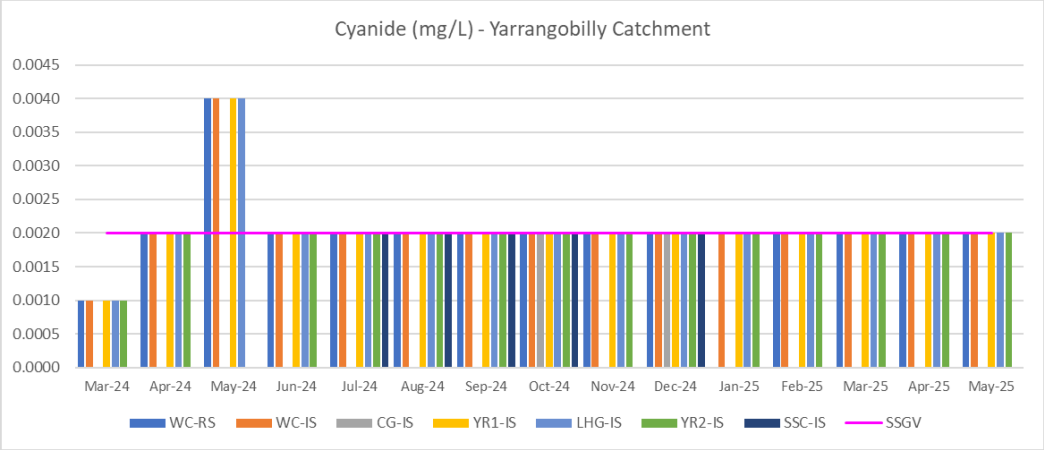

FIGURE 37: CYANIDE FOR YARRANGOBILLY RIVER CATCHMENT

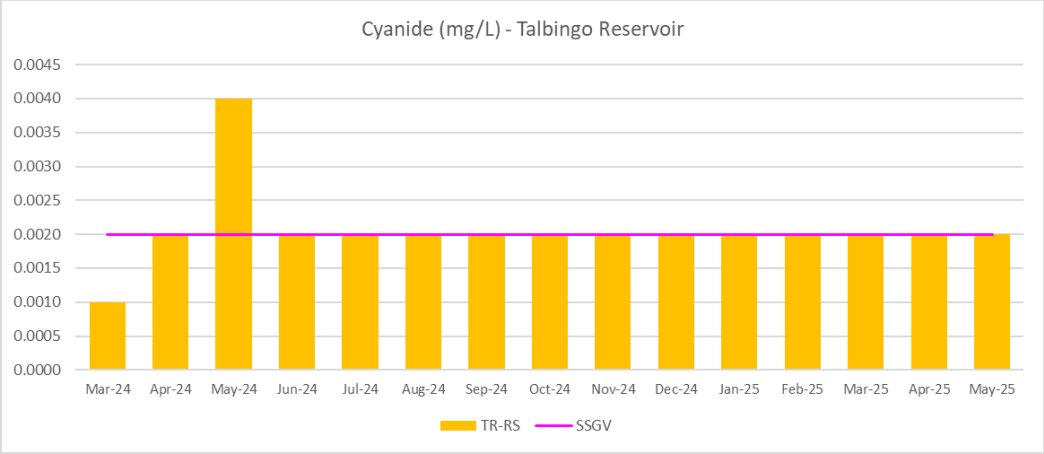

Figure 38: Cyanide for Talbingo Reservoir

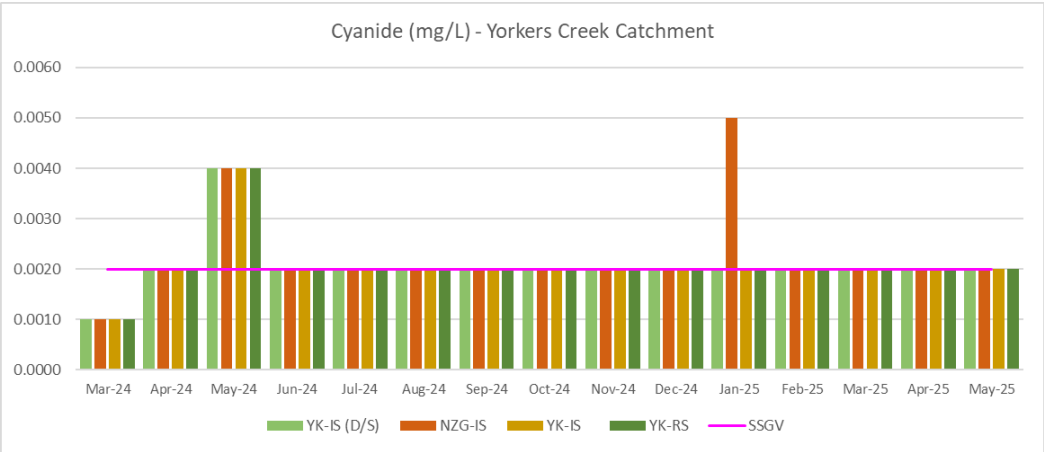

FIGURE 39: CYANIDE FOR YORKERS CREEK CATCHMENT

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5.2.1.13 Total Hardness

During the May 2025 sampling period, all sampling locations exceeded their respective Total Hardness ($CaCO_3$ (mg/L)) (Dec—May SSGV value (Figure 40—42). LHG-IS from the Yarrangobilly Catchment provided the largest exceedance with the value of 333mg/L (Figure 40). TR-RS marginally exceeded the SSVG (Figure 41). The greatest exceedance of the SSVG for Yorkers Creek Catchment was from NZG-IS which recorded a result of 30mg/L (Figure 42).

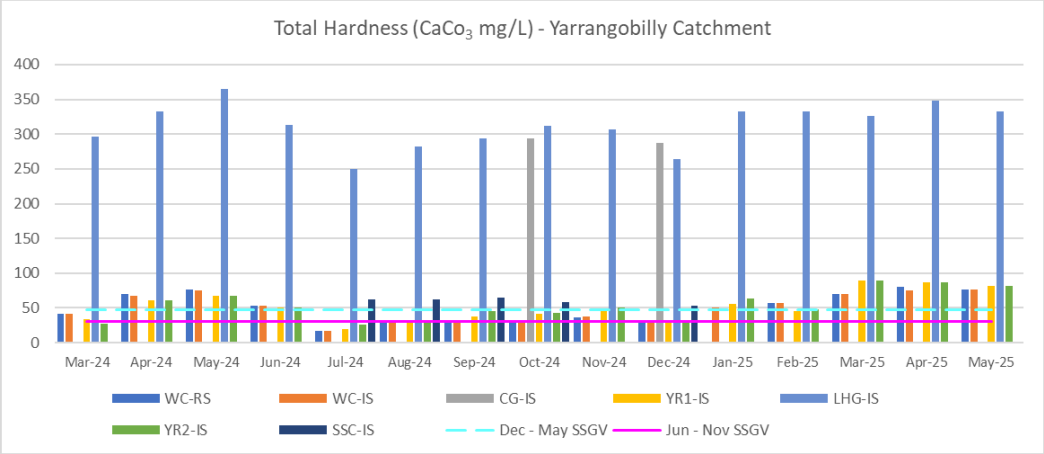

FIGURE 40: $CACO_3$ FOR YARRANGOBILLY RIVER CATCHMENT

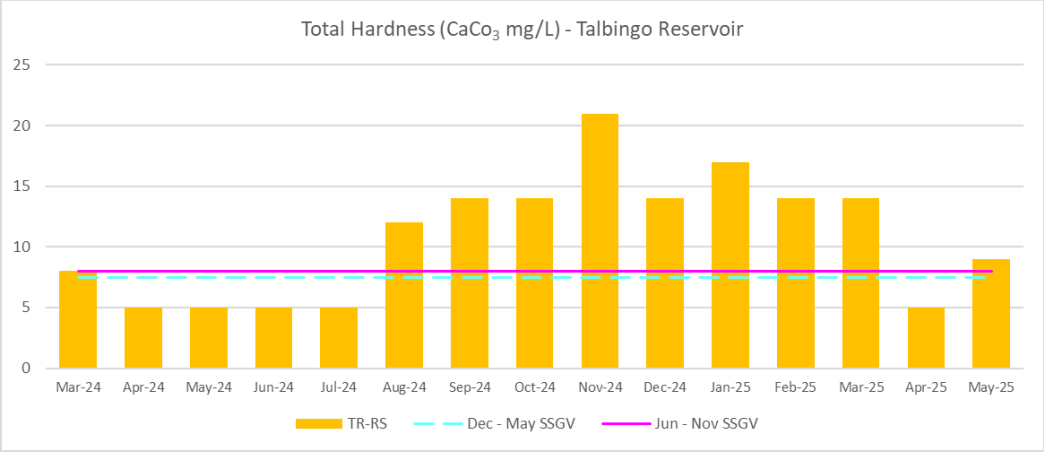

FIGURE 41: $CACO_3$ FOR TALBINGO RESERVOIR

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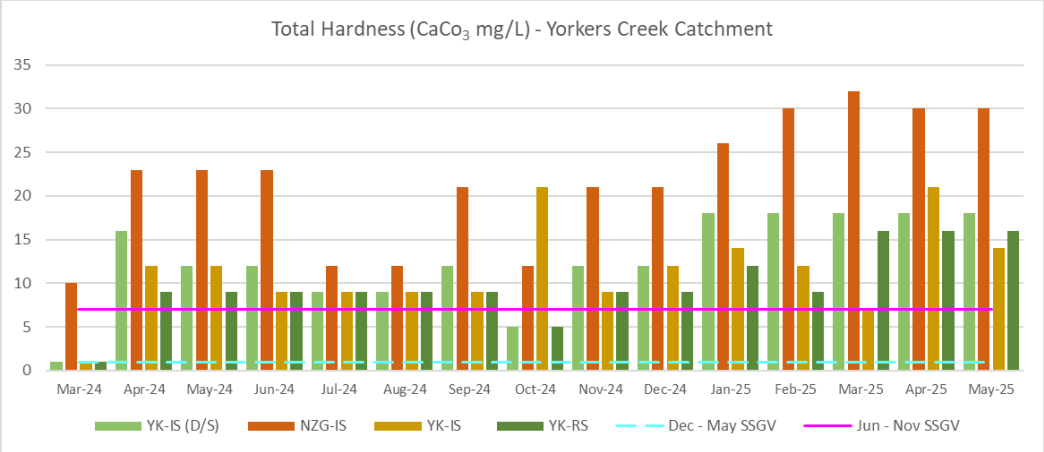

FIGURE 42: $CACO_3$ FOR YORKERS CREEK CATCHMENT

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5.2.1.14 Total Kjeldahl Nitrogen

The May 2025 results for TKN (mg/L) remained generally similar to April 2025 with two exceedances recorded (Figure 43—45). WC-RS from the Yarrangobilly Catchment recorded a value of 0.4mg/L (Figure 43) and TR-RS from Talbingo Reservoir produced a result of 0.2mg/L (Figure 44). All sampling locations from Yorkers Creek Catchment met the Dec—May SSVG (Figure 45).

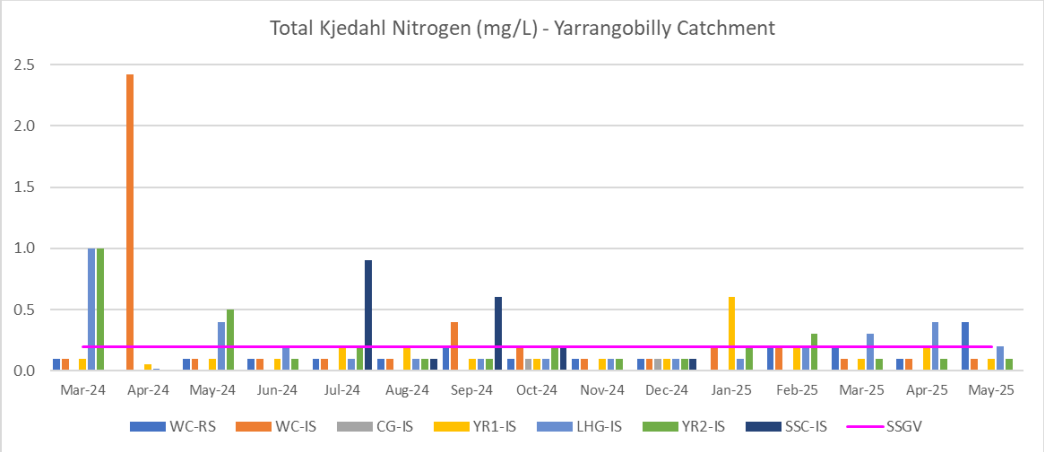

FIGURE 43: TKN FOR YARRANGOBILLY RIVER CATCHMENT

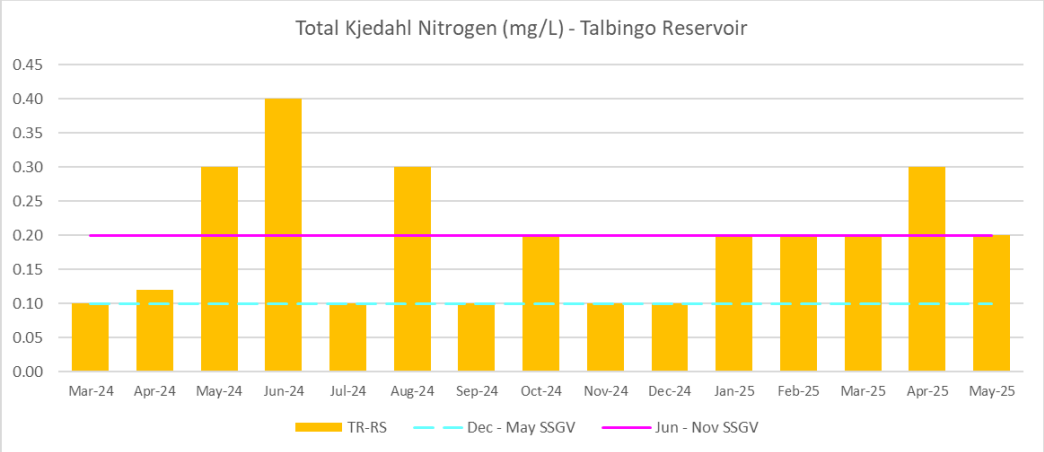

FIGURE 44: TKN FOR TALBINGO RESERVOIR

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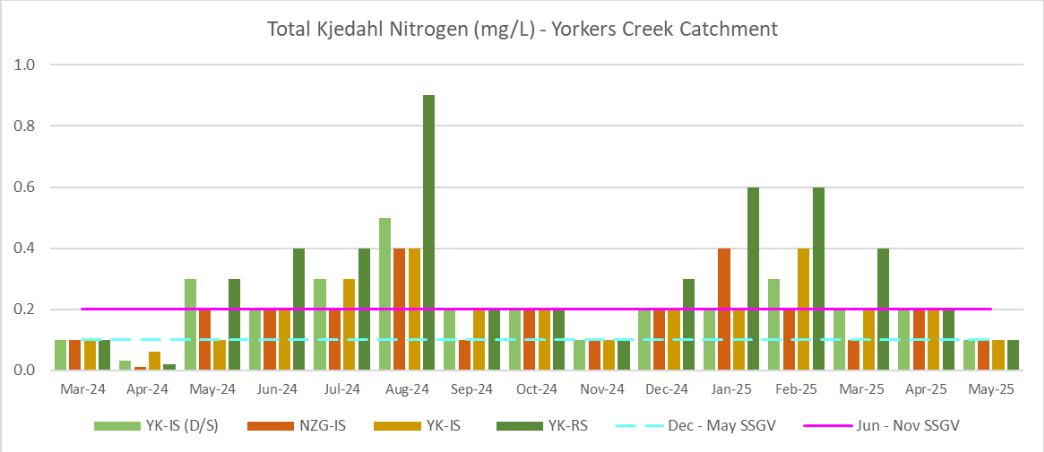

FIGURE 45: TKN FOR YORKERS CREEK CATCHMENT

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5.2.1.15 Total Nitrogen

TN (mg/L) results varied across each catchment (Figure 46—48) during the May 2025 sampling period. WC-RS from the Yarrangobilly Catchment produced an exceedance of the SSGV (2.9mg/L) (Figure 46). TR-RS from the Talbingo Reservoir met the SSGV (Figure 47). YK-RS from the Yorkers Creek Catchment exceeded the SSGV (0.3mg/L) (Figure 48).

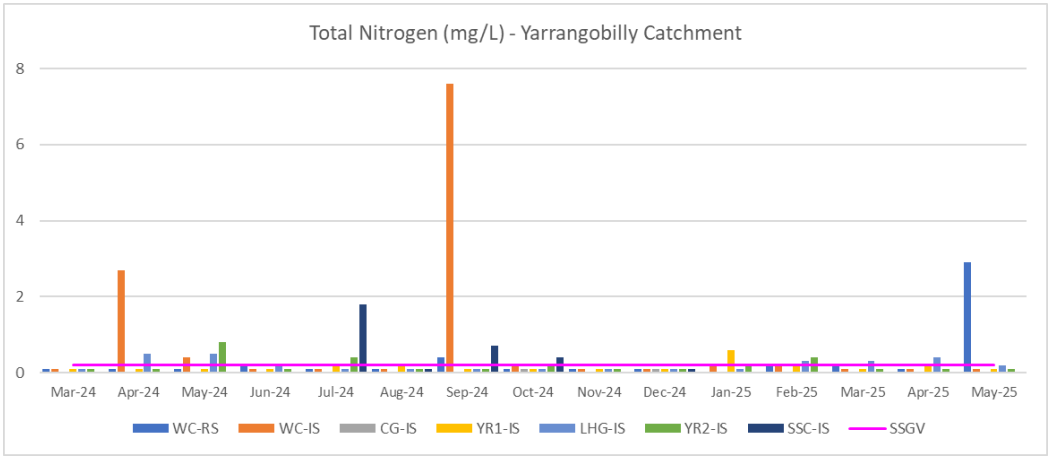

FIGURE 46: TN FOR YARRANGOBILLY RIVER CATCHMENT

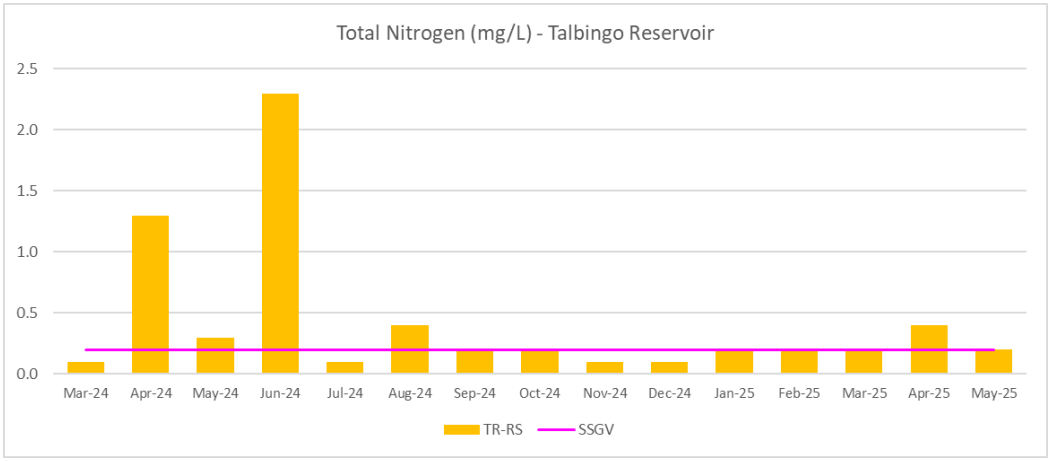

Figure 47: TN for Talbingo Reservoir

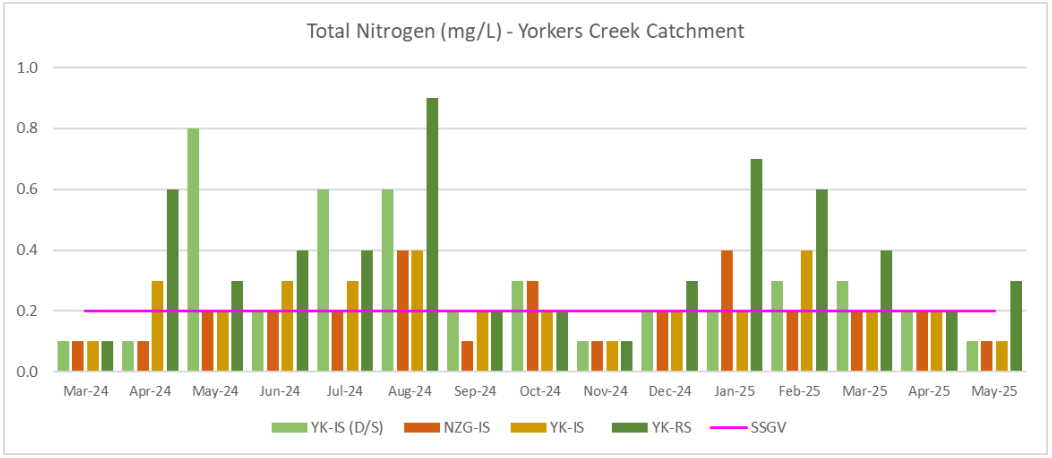

FIGURE 48: TN FOR YORKERS CREEK CATCHMENT

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5.2.1.16 Total Phosphorus

One exceeded of Total Phosphorus (mg/L) was recorded at each catchment (Figure 49—51) during the May 2025 sampling period. LHG-IS from the Yarrangobilly Catchment produced a result of 0.44mg/L although is suspected to be a laboratory error (Figure 49). An exceedance was recorded at TR-RS from the Talbingo Reservoir which provided a result of 0.07mg/L (Figure 50). YK-IS from the Yorkers Creek Catchment produced a result of 0.03mg/L (Figure 51).

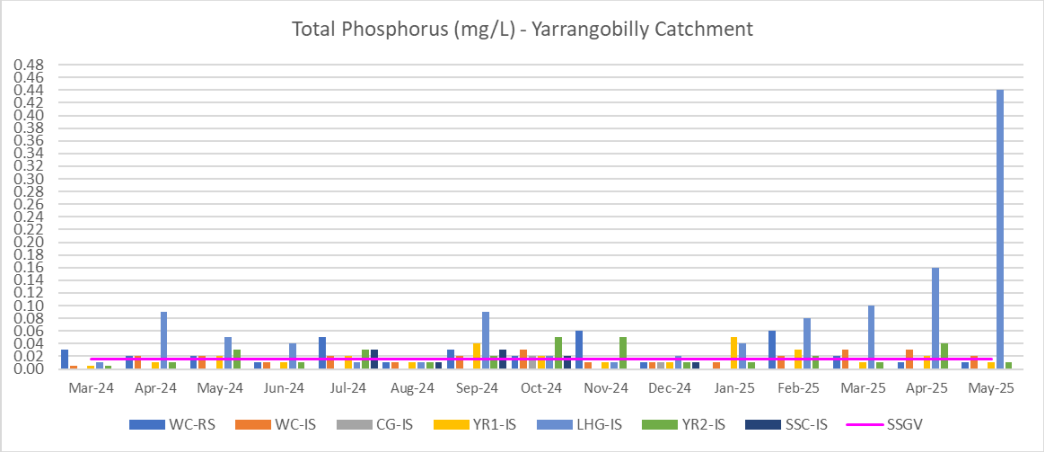

FIGURE 49: TP FOR YARRANGOBILLY RIVER CATCHMENT

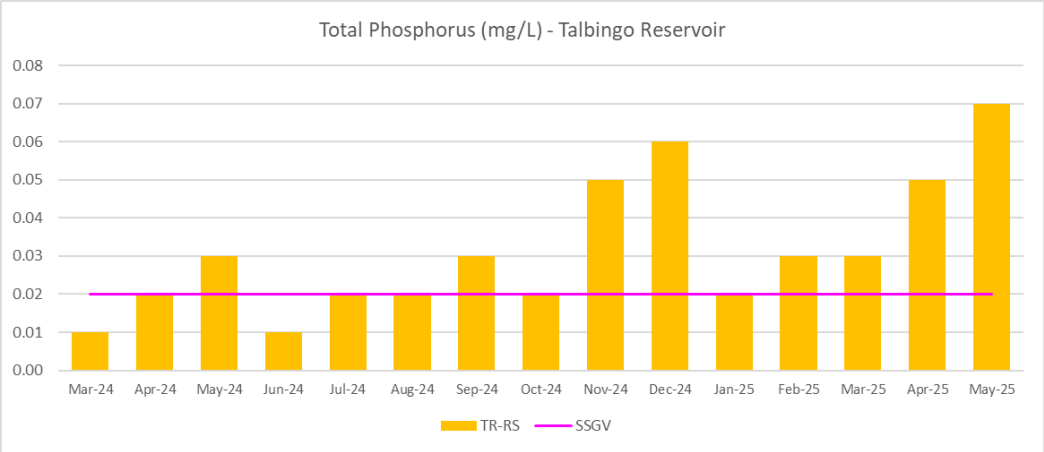

FIGURE 50: TP FOR TALBINGO RESERVOIR

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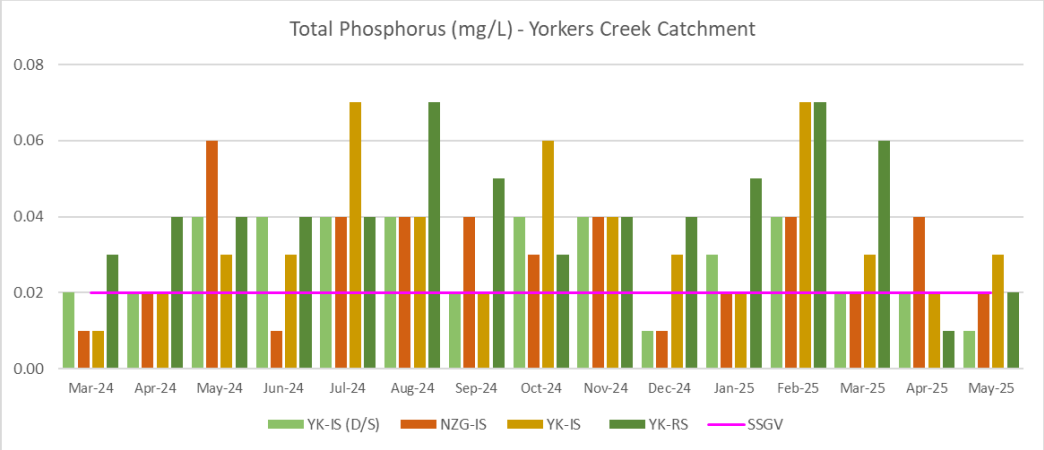

FIGURE 51: TP FOR YORKERS CREEK CATCHMENT

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5.2.1.17 Reactive Phosphorus

All sampling locations measured below the LOR for RP (mg/L) during the May 2025 sampling period (Figure 52—54), excluding TR-RS (0.02mg/L) from Talbingo Reservoir which met the Dec—May SSVG and NZG-IS (0.02mg/L) from the Yorkers Creek Catchment which met the SSVG (Figure 53—54).

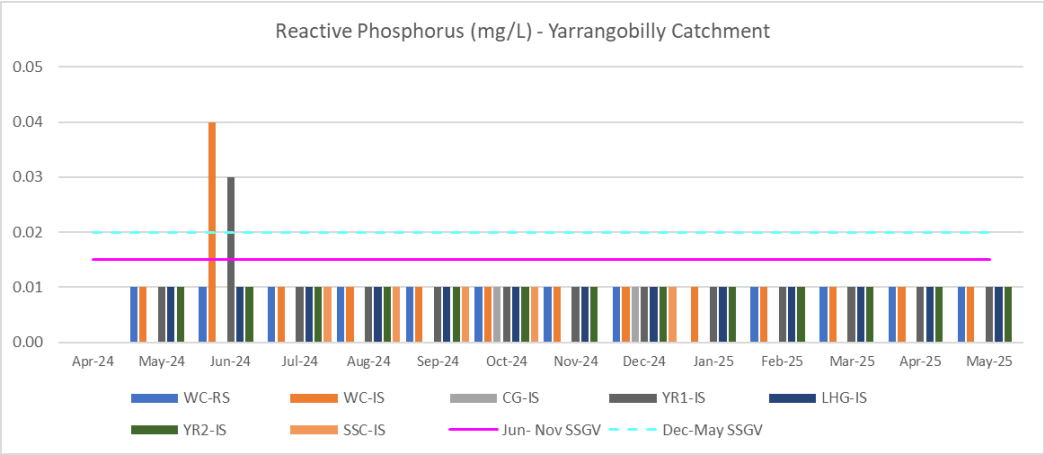

FIGURE 52: RP FOR YARRANGOBILLY RIVER CATCHMENT

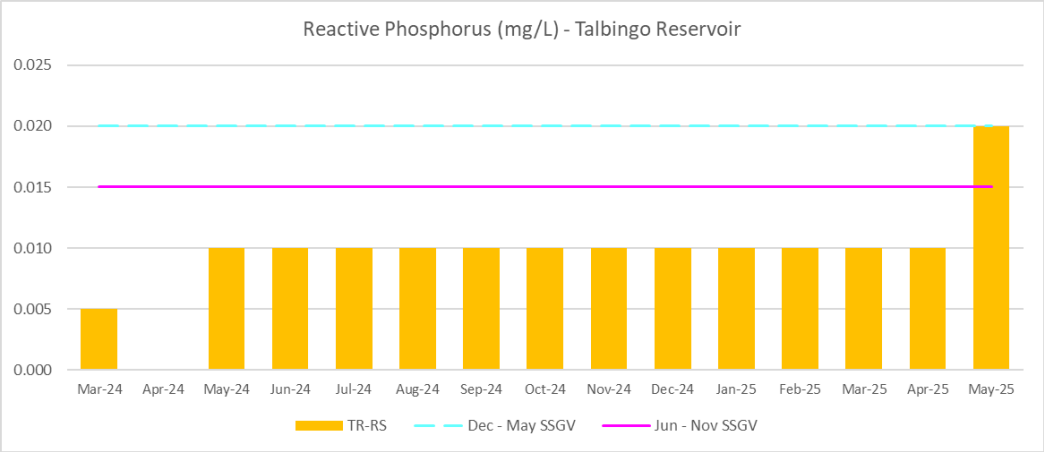

Figure 53: RP for Talbingo Reservoir

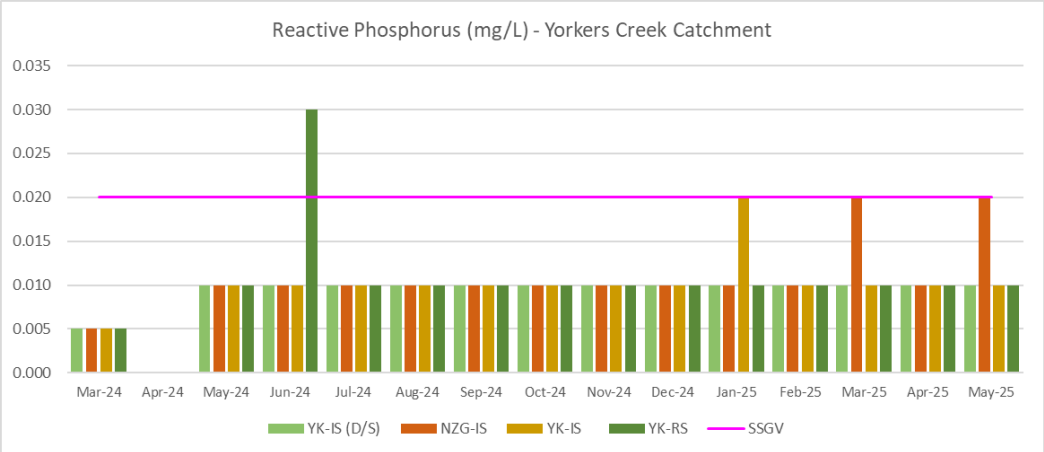

FIGURE 54: RP FOR YORKERS CREEK CATCHMENT

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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**
As	LHG-IS	0.003	0.0003	Dissolved As exceedance was recorded at LHG-IS (0.003mg/L) from the Yarrangobilly Catchment area. All other samples were within their respective SSGV Value.
Fe	LHG-IS	1.9	0.02	Dissolved Fe Dec—May SSGV exceedance was recorded at LHG-IS (1.9mg/L) from the Yarrangobilly Catchment area. All other samples were within their respective SSGV value.
Mn	WC-RS	0.007	0.002	Dissolved Mn Dec—May SSGV exceedance was recorded at WC-RS (0.007mg/L), WC-IS (0.006mg/L) and LHG-IS (0.736mg/L) from the Yarrangobilly Catchment. Yorkers Creek Catchment recorded exceedance at YK-IS (D/S) (0.013mg/L) and YK-IS (0.021mg/L). All other samples were within their respective SSGV value.
	WC-IS	0.006		
	LHG-IS	0.736		
	YK-IS (D/S)	0.013	0.005	
	YK-IS	0.021		

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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	0.61	0.027	All listed sampling locations exceeded the DGV value for Total Al (mg/L) (0.027mg/L). All other samples were within the DGV Value.
	YK-RS	0.52		
	YK-IS (D/S)	0.17		
	NZG-IS	0.11		
	YK-IS	0.15		
As	LHG-IS	0.019	0.0008	LHG-IS from the Yarrangobilly Catchment exceeded the DGV value (0.0008mg/L). All other samples were within the DGV value.
Cu	NZG-IS	0.005	0.001	NZG-IS from the Yorkers Creek Catchment exceeded the DGV value (0.001mg/L). All other samples were within the DGV value.
Pb	LHG-IS	0.002	0.001	LHG-IS from the Yarrangobilly Catchment exceeded the DGV value (0.001mg/L). All other samples were within the DGV value.
Mn	LHG-IS	2.22	1.2	LHG-IS from the Yarrangobilly Catchment exceeded the DGV value (1.2mg/L). All other samples were within the DGV value.
Zn	LHG-IS	0.009	0.0024	LHG-IS from the Yarrangobilly Catchment exceeded the DGV value (0.0024mg/L). All other samples were within the DGV value.
	NZG-IS	0.011		
Fe	LHG-IS	19.2	0.3	LHG-IS exceeded the DGV value (0.3mg/L) with a notable result of 19.2mg/L. YK-RS, YK-IS (D/S) and YK-IS from the Yorkers Creek Catchment, exceeded the DGV value (0.3mg/L). All other samples were within the DGV value.
	YK-RS	0.63		
	YK-IS (D/S)	0.44		
	YK-IS	0.58		

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6 DISCUSSION

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

- Potential impacts to SWQ:
  - » Transmission line clearing and bulk earthworks activities were ongoing within the Yarrangobilly and Yorkers Creek catchment areas during May 2025.
  - » 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 WC-RS, YR1-IS, LHG-IS and YK-RS which 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, Talbingo Reservoir has consistently exceeded the relevant SSGV/DGV for the following parameters: DO, pH, turbidity, ammonia, nitrogen oxides, $CaCO_3$, TSS, TDS, redox and total Al

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- 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 aquatic fauna and invertebrates at YR1-IS, LHG-IS, YR2-IS, TR-RS, YK-RS, YK-IS (D/S), NZG-IS and YK-IS indicate the SWQ at these waterways is sufficient to support aquatic ecosystems
- 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
- Contrary to the January 2025 results, temperature (°C) decreased across the Yarrangobilly River catchment and Talbingo Reservoir in February 2025 but increased in the Yorkers Creek catchment
- Temperature (°C) continued to decrease from April 2025 across all three catchments in May 2025.
- LHG-IS from the Yarrangobilly Catchment was the only sampling location that exceeded the SSGV for SPC (µS/cm) in May 2025, although results were maintained from January 2025.
- Results for SPC (µS/cm) were generally consistent with previous results (February 2025 to May 2025).
- The majority of below SSGV DO (%) levels within the Yarrangobilly River catchment have occurred during the December to May period
- DO% results were consistently maintained from previous months with a notable improvement identified at TR-RS of the Talbingo Reservoir, with a decrease noted at LHG-IS of the Yarrangobilly Catchment.
- Compared to January 2025, Turbidity (NTU) increased at most Yarrangobilly River catchment sites but decreased at YR1-IS and LHG-IS
- Turbidity (NTU) parameters across each catchment were generally below the SSGV across Yarrangobilly Catchment and Yorkers Creek Catchment. A marginal exceedance of the SSGV was noted at TR-RS from the Talbingo Reservoir and YK-RS from the Yorkers Creek Catchment. LHG-IS from the Yarrangobilly Catchment provided a result of 71.43 NTU, which was an increase from April 2025 (50.12 NTU).
- A large exceedance of the SSGV was identified at LHG-IS from the Yarrangobilly Catchment, returning a result of 131mg/L. TR-RS from the Talbingo Reservoir maintained results from February 2025 to May 2025. Yorkers Creek Catchment continued to decrease in TSS.
- TDS (mg/L) maintained similar results from previous sampling periods across all three catchments, excluding LHG-IS from the Yarrangobilly Catchment (406mg/L) and NZG-IS from the Yorkers Creek Catchment (54mg/L), although NZG-IS continued decreasing from April 2025 results.
- Redox (mV) results were generally in exceedance of the Dec-May SSGV, albeit a notable decrease was present across all three catchments from previous sampling periods.
- Nitrogen Oxide (mg/L) SSGV exceedance was recorded at WC-RS (2.5mg/L) from the Yarrangobilly Catchment and YK-RS (0.18mg/L) from the Yorkers Creek Catchment. All other sampling locations were below the SSGV.

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- Despite the December to May SSGV exceedances of ammonia (mg/L) at all sites except for LHG-IS, the February 2025 results generally decreased since January 2025. However, February 2025 was also the first time WC-IS measured above the LOR
- Ammonia (mg/L) May 2025 results were generally lower than April 2025 results with the exception of TR-RS (0.03mg/L) from the Talbingo Reservoir and LHG-IS (0.04mg/L) from the Yarrangobilly Catchment. All other sampling locations were below the SSGV.
- In general, TKN (mg/L) results were consistent with previous monitoring periods
- TKN (mg/L) exceedance was recorded at WC-RS (0.4mg/L) from the Yarrangobilly Catchment and TR-RS (0.2mg/L) from the Talbingo Reservoir. All other sampling results met or were below the SSGV.
- TP (mg/L) levels were generally below the SSGV across Yarrangobilly Catchment and Yorkers Creek Catchment. A notable increase was identified at LHG-IS (0.44mg/L) from the Yarrangobilly Catchment and TR-RS (0.07mg/L) from the Talbingo Reservoir. The exceedance at LHG-IS in May 2025 is potentially a laboratory error.
- Dissolved As exceedance was only recorded at LHG-IS (0.003mg/L). All other samples were within their respective SSGV.
- Dissolved Fe exceedance was only recorded at LHG-IS (1.9mg/L). All other samples were within their respective SSGV.
- Dissolved Mn exceedance was recorded at WC-RS (0.007mg/L), WC-IS (0.006mg/L), LHG-IS (0.736mg/L), YK-IS (D/S) (0.013mg/L) and YK-IS (0.021mg/L). LHG-IS from the Yarrangobilly Catchment was 368 times above the SSGV. All other samples were within their respective SSGV.
- Consistent exceedance of Total Al (mg/L) was identified across all sampling locations.
- The exceedances of total Fe (mg/L) at LHG-IS appeared to be influenced by seasonality and limited to the December to May period.
- Exceedance of Total Zn (mg/L) SSGV were identified at LHG-IS (0.009mg/L) and NZG-IS (0.011mg/L).

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7 CONCLUSION

Monthly water quality monitoring was undertaken on the 19 May 2025 across Yarrangobilly Catchment, Talbingo Reservoir and Yorkers Creek Catchments in accordance with EPL 21753. Monitoring was completed using the revised methodology outlined in section 3 at the 12 locations listed in Table 1.

The results from the construction SWQ monitoring program were reported for three key catchments: Yarrangobilly River, Talbingo Reservoir, and Yorkers Creek. Each catchment had a reference site, with impact sites also monitored for comparison. Key parameters such as temperature, pH, DO, SPC, EC, turbidity, TSS, redox, ammonia, nitrogen oxides, cyanide, TKN, $CaCO_3$, TN, TP, RP and metals (both dissolved and total) were analysed.

In May 2025, overall temperatures decreased across all three catchments, the Yarrangobilly River catchment, ranged from 9.4 °C to 11.2°C, Talbingo Reservoir decreased to 12.3°C and Yorkers Creek Catchment ranged between 3.7°C and 5.4°C.

pH levels across all three catchments were generally consistent across all three catchments with results produced in previous sampling periods.

DO (%) results were generally similar to previous sampling periods across all three catchments with the exception of LHG-IS producing a result of 37.1%.

EC (µS/cm) results were largely reduced and bellow the Dec-May SSGV compared to previous months across all three catchments. Similarly, SPC (µS/cm) was consistently lower than the Dec-May SSGV with the exception of LHG-IS (134 µS/cm) although LHG-IS remained consistent with previous sampling periods.

Turbidity (NTU) results varied across each sampling location and catchment. The Greatest exceedance of the Dec-May SSGV was obtained from LHG-IS which produced a result of 71.43 NTU, which is an increase from April 2025 result of 50.12 NTU.

Redox (mV) results exceeded the Dec-May SSGV across all sampling locations with the exception of YK-IS which produced a result of 15.8mV during the May 2025 sampling period. Notably, each sampling location did decrease from April 2025 results

Majority of the sampling locations were below the LOR (Limit of Reporting) for nitrogen oxides (mg/L) with an exceedance occurring at WC-RS (2.5mg/L) and YK-RS (0.18mg/L).

Majority of the sampling locations were below the LOR for Ammonia (mg/L) and Cyanide (mg/L). LHG-IS (0.04mg/L) and TR-RS (0.03mg/L) marginally exceeded the SSGV for Ammonia.

All sites either met or were below their respective SSGV for reactive phosphorus (mg/L).

$CaCO_3$ (mg/L) exceeded the Dec-May SSGV across all sampling locations although a notable decreasing trend was identified across the Yorkers Creek Catchment sampling locations. TR-RS (9mg/L) from the Talbingo Reservoir was the only sampling location that provided an increase in Total hardness ($CaCO_3$ (mg/L) although only marginally exceeded the SSGV.

Results for TKN (mg/L) generally reduced across all sampling locations with the exception of WC-RS (0.4mg/L) which marginally exceeded the SSGV. Results were generally consistent with previous sampling periods.

Results for total nitrogen (mg/L) produced varied results across all sampling locations with a general decrease identified across each location. WC-RS (2.9mg/L) and YK-RS (0.3mg/L) were the only sampling locations which increased in May 2025 from April 2025.

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Three dissolved metal analytes (As, Fe and Mn, recorded exceedances in May 2025. The greatest exceedance was recorded at LHG-IS (0.736mg/L) referring to dissolved Mn. This exceedance was 368 times the SSGV.

Seven total metal analytes (Al, As, Cu, Pb, Mn, Zn, and Fe) were in exceedance in different sampling locations of each catchment. The greatest exceedance was recorded at LHG-IS (19.2mg/L) referring to total Fe, which is 64 times the DGV.

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Appendix A: Field Sheet (UGL, 2025)

UGL

WATER QUALITY MONITORING FIELD SHEET

Date: 19105125 **Personnel:** Ebony + Vivian **Sampling Purpose:** Monthly WQ Monitoring

Site	Time	Temp (°C)	Water Pressure (mmhg)	DO (%)	SPC (µS/cm)	pH	Turbidity (NTU)	TSS (mg/L)	Observations
DGV:		-	-	90 - 110	30 - 350	6.5 - 8	2 - 25	0.2	Weather Pre 24 hrs: 0.00mm
Dec - May SSGV:		-	-	96.2	115	7.85	0.37	0.2	Weather Forecast: Fine + Sunny
Jun - Nov SSGV:		-	-	89.7	88	7.62	5.12	1	Weather Time of Sampling: 1:40pm
LHG-IS Lick Hole Gully	3:59	11.2	721.1	37.1	134.0	7.47	71.43	0.00	•Fine, sunny, cold • very low • low flow • scatt • grass, shrub, tree riparian • rocky bed • aquatic veg; weed density moderate, smell • mud • organic decomposion sheen • orange algae • adjacent to drainage • adjacent to mine trail work road. • wallaby
YR1-IS Yarrangobilly River	3:16	10.3	721.9	95.1	35.1 EC 25.2	8.84	1.29 MV 110.9	0.00	•Fine, sunny, windy, cad • very low vol; High velocity rocky, pebble bed. rocky; grass undercut • Tree, grass, shrub riparian • High visability • weed density moderate • organic decomposition sheen. aquatic vegetation • algae • moss • over hanging vegetation • scatt • mud • eroded bank • vegetative detritus
SSC-IS Sheep Station Creek									DRY
TR-RS Talbingo Reservoir	11:00	12.3	725.0	88.6	5.9 EC 4.5	7.59 —	1.68 MV 109.8	0.00	• Rocky / pebble, finer particles groundbed. • Water visability is good. • Water clarity good. • adjacent to public road & O'Hares campground. • water recreational activites • Talbingo resovior ancillary infrastructure. • water level very low, rocky banks • aquatic vegetation • Fine, sunny • Tree, grass • Sandy bed • mica • Fish • canopy Foyer • minimal vegetative detitus

UGL

(west)
take photos of NZ-Gyllyls

WATER QUALITY MONITORING FIELD SHEET

Date: 19/05/25 **Personnel:** Ebony. Vivian **Sampling Purpose:** Monthly WQ monitoring

Site	Time	Temp (°C)	Water Pressure (mmhg)	DO (%)	SPC (µS/cm)	pH	Turbidity (NTU)	TSS (mg/L)	Observations
DGV:		-	-	90 - 110	30 - 350	6.5 - 8	2 - 25	0.2	Weather Pre 24 hrs: 0.00mm
Dec - May SSGV:		-	-	96.2	115	7.85	0.37	0.2	Weather Forecast: Fine + Sunny
Jun - Nov SSGV:		-	-	89.7	88	7.62	5.12	1	Weather Time of Sampling: 7.40am
2 YK-RS Yorkers Creek	8:43	4.2	673.5	83.9	9.1 / EC 5.5	7.73 / MV 116.9	11.81	0.00	• Horse scatt • cold, windy, sunny, clear skies • yellow discolouration to water • very low vol • very low flow, over hanging veg • veg detritus • silty, fine grain bed • Trees + grass cover • Blackberry • low weed density • Kangaroo scatt • fungi • eroded banks • algae • Adjacent to public access road • Sheen from decom. organic matter
4. YK-IS (D/S) Yorkers Creek	9.51	5.4	677.6	85.5	10.6 / EC 6.6	7.54 / MV 111.1	2.84	0.00	• horse scat • public accessable + road • grass cover, Tree + shrub • over hanging vegetation • vegetative detritus • aquatic veg • low vol, • Moderete flow • rocky bed + smaller rock particles • moss growth • aquatic vettelovate shell • undercut banks • potential borrow under banks • low weed density • sunny, clear, cold water quality • slight yellow tinge to water
1 NZG-IS New Zealand Gully		3.7	678.9	80.3	16.4 / EC 9.7	7.77 / MV 117.1	1.78	0.00	Water level low, clear water, low flow, Horse hoof marks, muddy, eroded, Blackberry, low weed density, grass groundcover, Tree riparian, • vegetation overhanging, vegetative debreralage presence • Mica • rocky, pebbly bed • adjacent to public accessible Access Track.
3 YK-IS Yorkers Creek	9:25	4.9	675.	70.3	9.7 / EC 6.0	7.21 / MV 13.8	5.62	0.00	• horse scatt • low vol • adjacent to pubic road • cold sunny, clear skies • over hanging vegetation • rocky bed • veg detritus • Tree + grass cover • weed cover low • low flow, water clarity cloudy • pale yellow tinge • aquatic veg • eroded bank • Horse hoof mark • deer print in mud (potential) • algae • Low density of shrubs • adjacent to elliot way and under elliot way. • 2 drainage pipes lead into waterway.

Just up the road w/ UGL compound (R) fork track

before moragie site compound enterence (R) side.

UGL

~50m riparian veg
CGIS + CG changed to WC + WCIS

WATER QUALITY MONITORING FIELD SHEET

Date: 19105125 | Personnel: Ebony + Vivian | Sampling Purpose: Monthly WQ Monitoring

Site	Time	Temp (°C)	Water Pressure (mmhg)	DO (%)	SPC (µS/cm)	pH	Turbidity (NTU)	TSS (mg/L)	Observations
DGV:		-	-	90 - 110	30 - 350	6.5 - 8	2 - 25	0.2	Weather Pre 24 hrs: 0.00mm
Dec - May SSGV:		-	-	96.2	115	7.85	0.37	0.2	Weather Forecast: Fine, sunny
Jun - Nov SSGV:		-	-	89.7	88	7.62	5.12	1	Weather Time of Sampling: 11:15am
~~CG-IS~~ ~~WC-RS~~ ~~Wallace Creek~~ cave gully									
(down under Bridge) WC-IS Wallace Creek	1:52	9.4	721.0	96.1	34.3 EC 24.1	8.71	1.40 MV 110.9	0.00	• under work mine trail road bridge • clear, sunny, cold, • rocky bed, undercut break • aquatic fish • algae • vegetative detitus • overhanging veg • high visability • Tree, grass, shrub • low vol • high flow. • good water quality
(up) WCAS ~~CG-IS~~ ~~Cave Gully~~ Wallace Creek	1:13	9.9	720.7	96.0	33.7 EC 24.0	8.59	1.04 MV 110.8	0.00	•Clear, sunny, cold, • rocky, ~~pebble~~ rock bed • High flow, low volume, • rocky ~~bed~~ / eroded. • exposed root of Large tree. • aquatic veg • Slightly undercut ~~bank~~ • algae • moss • Larvae • vegetative detitus • overhanging veg • organic decomposition sheen • orange algae, High visability • no discolouration • Tree, grass bed • low weed density • air bubbles surface of the water
2 ~~YR1-IS~~ Yarrangobilly River	2:27	10.8	723.2	96.8	35.7 EC 26.0	8.87	1.27 MV 110.1	0.00	• Clear, sunny, cold, Windy. • rocky bed • High visability • Tree shrub, grass riparian, weed density moderate. Low vol high velocity. under mine trail road bridge • rocky cliff face. adjacent to electrical tower • pebble • overhanging vegetation • aquatic veg • veg detitus • algae • aquatic invertebrate • moss

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

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CERTIFICATE OF ANALYSIS

Work Order	: **ES2515034**	Page	: 1 of 8
Client	: **UGL LIMITED**	Laboratory	: Environmental Division Sydney
Contact	: EBONY HAMES	Contact	: Customer Services ES
Address	: Level 4, 40 Miller Street North Sydney 2060	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: Monthly WQ Sampling May 2025	Date Samples Received	: 22-May-2025 12:00
Order number	: 4501837828	Date Analysis Commenced	: 22-May-2025
C-O-C number	: 82925	Issue Date	: 28-May-2025 11:59
Sampler	: EBONY HAMES, VIVIAN LEEYU		
Site	: Maragle Lobs Hole		
Quote number	: ES24UGLLIM0001_V4		
No. of samples received	: 11		
No. of samples analysed	: 11		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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

Signatories

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

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

General Comments

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

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

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

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

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

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

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

- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	NZG-IS	YK-RS	YK-IS	YK-IS (D/S)	WCRS
				Sampling date / time	19-May-2025 07:34	19-May-2025 08:54	19-May-2025 09:28	19-May-2025 10:08	19-May-2025 13:30
Compound	CAS Number	LOR	Unit		ES2515034-001	ES2515034-002	ES2515034-003	ES2515034-004	ES2515034-005
					Result	Result	Result	Result	Result
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		**54**	**33**	**33**	**36**	**104**
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	1	mg/L		<1	**4**	**1**	**1**	<1
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L		**30**	**16**	**14**	**18**	**77**
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.02**	**0.08**	**0.08**	**0.05**	<0.01
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		**0.004**	**0.004**	**0.021**	**0.013**	**0.007**
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	**0.14**	**0.18**	**0.10**	<0.05
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.11**	**0.52**	**0.15**	**0.17**	<0.01
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		**0.005**	<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		**0.011**	<0.005	<0.005	<0.005	<0.005
Manganese	7439-96-5	0.001	mg/L		**0.008**	**0.009**	**0.027**	**0.033**	**0.009**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	NZG-IS	YK-RS	YK-IS	YK-IS (D/S)	WCRS
				Sampling date / time	19-May-2025 07:34	19-May-2025 08:54	19-May-2025 09:28	19-May-2025 10:08	19-May-2025 13:30
Compound	CAS Number	LOR	Unit		ES2515034-001	ES2515034-002	ES2515034-003	ES2515034-004	ES2515034-005
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Silver	7440-22-4	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Iron	7439-89-6	0.05	mg/L		**0.16**	**0.63**	**0.58**	**0.44**	<0.05
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**	**0.01**	<0.01	**0.02**
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	**0.18**	**0.01**	**0.01**	**2.50**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	**0.18**	**0.01**	**0.01**	**2.50**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		<0.1	**0.1**	**0.1**	**0.1**	**0.4**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		<0.1	**0.3**	**0.1**	**0.1**	**2.9**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.02**	**0.02**	**0.03**	**0.01**	**0.01**
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

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	WC-RS (DUPE)	WC-IS	YR2-IS	YR1-IS	LHG-IS
				Sampling date / time	19-May-2025 13:35	19-May-2025 14:01	19-May-2025 14:36	19-May-2025 15:22	19-May-2025 16:08
Compound	CAS Number	LOR	Unit		ES2515034-006	ES2515034-007	ES2515034-008	ES2515034-009	ES2515034-010
					Result	Result	Result	Result	Result
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		**92**	**88**	**94**	**96**	**406**
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	1	mg/L		<1	<1	<1	<1	**131**
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L		**77**	**77**	**82**	**82**	**333**
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	**0.003**
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L		<0.005	<0.005	<0.005	<0.005	<0.005
Manganese	7439-96-5	0.001	mg/L		**0.008**	**0.005**	**0.001**	**0.002**	**0.736**
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	<0.05	**1.90**
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	**0.61**
Arsenic	7440-38-2	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	**0.019**
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	**0.002**
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	**0.002**
Zinc	7440-66-6	0.005	mg/L		<0.005	<0.005	<0.005	<0.005	**0.009**
Manganese	7439-96-5	0.001	mg/L		**0.008**	**0.006**	**0.002**	**0.002**	**2.22**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	WC-RS (DUPE)	WC-IS	YR2-IS	YR1-IS	LHG-IS
				Sampling date / time	19-May-2025 13:35	19-May-2025 14:01	19-May-2025 14:36	19-May-2025 15:22	19-May-2025 16:08
Compound	CAS Number	LOR	Unit		ES2515034-006	ES2515034-007	ES2515034-008	ES2515034-009	ES2515034-010
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS - Continued									
Silver	7440-22-4	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001
Iron	7439-89-6	0.05	mg/L		<0.05	<0.05	<0.05	<0.05	**19.2**
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	**0.01**	**0.02**	**0.04**
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		**2.03**	<0.01	**0.03**	<0.01	**0.03**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**2.03**	<0.01	**0.03**	<0.01	**0.03**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**0.1**	<0.1	**0.1**	<0.1	**0.2**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		**2.1**	<0.1	**0.1**	<0.1	**0.2**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.02**	**0.02**	**0.01**	**0.01**	**0.44**
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	<0.01

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	TR-RS	----	----	----	----
				Sampling date / time	22-May-2025 11:08	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2515034-011	--------	--------	--------	--------
					Result	----	----	----	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L		**16**	----	----	----	----
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	1	mg/L		<1	----	----	----	----
ED093F: SAR and Hardness Calculations									
Total Hardness as CaCO3	----	1	mg/L		**9**	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
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		**0.003**	----	----	----	----
Silver	7440-22-4	0.001	mg/L		<0.001	----	----	----	----
Iron	7439-89-6	0.05	mg/L		<0.05	----	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
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		**0.030**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	TR-RS	----	----	----	----
				Sampling date / time	22-May-2025 11:08	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2515034-011	--------	--------	--------	--------
					Result	----	----	----	----
EG020T: Total Metals by ICP-MS - Continued									
Silver	7440-22-4	0.001	mg/L		<0.001	----	----	----	----
Iron	7439-89-6	0.05	mg/L		<0.05	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EK026SF: Total CN by Segmented Flow Analyser									
Total Cyanide	57-12-5	0.002	mg/L		<0.002	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.03**	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.01**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.01**	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**0.2**	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		**0.2**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.07**	----	----	----	----
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		**0.02**	----	----	----	----

Appendix C: May 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)
YARRANGOBILLY CATCHMENT																					
Default Guideline Value (DGV)		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
Limit of Reporting (LOR)				-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May Site Specific Guideline Value (SSGV)				96.2	9.08	115	93.2	7.85	79.1	0.37	0.03	0.0003	0.00002	0.00001	0.0002	0.002	0.03	0.001	0.002	0.00003	0.001
June - Nov SSGV				89.7	10.28	88	60.85	7.62	98.4	5.12	0.04	0.0003	0.00002	0.00001	0.0002	0.002	0.02	0.001	0.002	0.00003	0.001
WC-RS	Mar-24	No	10.7	87.5	9.72	143.6	104.3	7.80	25.9	0.1	0.02	0.00015	0.00001	0.00001	0.002	0.001	0.03	0.002	0.003	0.00002	0.001
	Apr-24	No	10.7	94.8	-	145.6	-	8.44	-	1.05	0.01	0.001	0.0001	0.001	0.001	0.002	0.11	0.001	0.007	0.0001	0.001
	May-24	No	2.1	93.8	-	155	-	8.05	-	0.39	0.01	0.001	0.0001	0.001	0.001	0.004	0.05	0.001	0.009	0.0001	0.001
	Jun-24	No	4.7	92.9	-	126.8	-	7.51	-	0.56	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.005	0.0001	0.001
	Jul-24	No	6.4	91.9	-	46.6	-	6.96	-	9.24	0.07	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Aug-24	No	10.4	80.6	-	47.1	-	7.80	-	1.6	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Sep-24	No	11.7	92.0	-	43	-	7.86	-	0.5	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Oct-24	No	9.3	92.7	-	52	-	7.55	-	1.3	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Nov-24	No	12.2	90.6	9.7	82	82	7.63	235	0.6	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.004	0.0001	0.001
	Dec-24	Yes	12.7	90.0	10.0	41.8	71.0	7.75	250	1.4	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
*sample not an	Jan-25	No	26.6	83.2	-	27.3	-	8.13	-	0.65	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	No	16.3	86.0	9.2	26.3	123	7.76	158	4.01	0.06	0.001	0.0001	0.001	0.001	0.002	0.08	0.001	0.008	0.0001	0.001
	Mar-25	Yes	14.7	92.7	9.8	34.6	145	8.32	162	1.16	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.008	0.0001	0.001
	Apr-25	No	17.6	91.8	10.5	34	155	8.19	202	0.9	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.007	0.0001	0.001
	May-25	Yes	9.9	96.0	-	33.7	24	8.59	110.8	1.04	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.007	0.0001	0.001
WC-IS	Mar-24	No	10.7	87.1	9.68	145.9	105.9	7.83	41.9	0.1	0.03	0.00015	0.00001	0.00001	0.002	0.001	0.03	0.002	0.003	0.00002	0.0005
	Apr-24	No	10.7	95.0	-	145.2	-	8.45	-	0.9	0.01	0.001	0.0001	0.001	0.001	0.002	0.07	0.001	0.006	0.0001	0.001
	May-24	No	2.1	94.1	-	154.9	-	7.86	-	0.3	0.01	0.001	0.0001	0.001	0.001	0.004	0.05	0.001	0.007	0.0001	0.001
	Jun-24	No	4.8	93.3	-	126.7	-	7.72	-	0.35	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.004	0.0001	0.001
	Jul-24	No	6.6	91.2	-	46.6	-	6.96	-	7.65	0.07	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Aug-24	No	10.5	91.5	-	45.6	-	7.83	-	5.85	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Sep-24	No	11.7	92.9	-	54.4	-	7.83	-	5.5	0.04	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.005	0.0001	0.001
	Oct-24	No	9.5	93.3	-	52.1	-	7.66	-	1.4	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Nov-24	No	12.2	90.4	9.9	82	82	7.63	245	0.3	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Dec-24	No	12.7	91.1	10.1	41.3	72	7.48	259	1.4	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Jan-25	No	17.8	85.7	9.1	24.5	108	7.80	232	2.75	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.007	0.0001	0.001
	Feb-25	No	16.3	85.2	9.4	26	123	7.80	164	4.08	0.06	0.001	0.0001	0.001	0.001	0.002	0.08	0.001	0.007	0.0001	0.001
	Mar-25	No	16.1	95.8	9.7	31.8	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
	Apr-25	No	17.3	92.8	10.6	33.5	155	8.66	197	1.02	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.005	0.0001	0.001
CG-IS	Mar-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jul-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aug-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sep-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Oct-24	No	12.7	93.2	-	382.8	-	8.17	-	1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Nov-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	No	14	88.5	9.7	29	480	8.12	255	2.84	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Jan-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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
	Apr-24	No	11.3	97.4	-	136.1	-	8.49	-	1.23	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	May-24	No	3.1	95.6	-	138.8	-	7.91	-	0.42	0.01	0.001	0.0001	0.001	0.001	0.004	0.05	0.001	0.002	0.0001	0.001
	Jun-24	No	5.6	94.3	-	112.4	-	7.80	-	1.94	0.02	0.001	0.0001	0.001	0.001	0.002	0.14	0.001	0.003	0.0001	0.001
	Jul-24	No	6.4	93.0	-	51.5	-	6.93	-	10.05	0.18	0.001	0.0001	0.001	0.001	0.002	0.11	0.001	0.002	0.0001	0.001
	Aug-24	No	8.6	89.8	-	55.8	-	7.87	-	3.62	0.07	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Sep-24	No	13.3	93.1	-	61.4	-	7.77	-	0.79	0.04	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Oct-24	No	12.5	94.9	-	66.8	-	7.77	-	2	0.04	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Nov-24	No	15	92.2	9.7	105	105	7.69	251	0.8	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.020	0.0001	0.001
	Dec-24	No	14.3	91.1	9.9	40.4	69	7.52	253	3.94	0.1	0.001	0.0001	0.001	0.001	0.002	0.06	0.001	0.001	0.0001	0.001
	Jan-25	No	19.5	86.6	9	19.2	110	8.01	235	14.18	0.04	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001
	Feb-25	No	17.2	86.3	9.3	21.8	101	7.78	168	4.35	0.14	0.001	0.0001	0.001	0.001	0.002	0.13	0.001	0.005	0.0001	0.001
	Mar-25	No	19.5	101.4	9.6	39.3	178	8.46	175	1.16	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Apr-25	Yes	18.7	91.6	10.4	36.3	171	8.76	195	0.98	0.01	0.001	0.0001	0.001	0.01	0.002	0.05	0.001	0.006	0.0001	0.001
	May-25	Yes	10.3	95.1	-	35.1	25.2	8.84	110.9	1.29	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
LHG-IS	Mar-24	Yes	11.9	59.2	6.38	596	447.2	7.35	-17.2	408.5	0.2	0.00015	0.00001	0.001	0.003	0.001	0.18	0.005	0.040	0.000015	0.003
	Apr-24	No	12.5	60.1	-	658	-	7.69	-	69.72	0.01	0.001	0.0001	0.001	0.001	0.002	0.34	0.001	0.184	0.0001	0.001
	May-24	No	7	63.3	-	618	-	7.00	-	1003.7	0.01	0.001	0.0001	0.001	0.001	0.004	0.71	0.001	0.184	0.0001	0.001
	Jun-24	No	8.5	70.4	-	616	-	7.65	-	10.05	0.01	0.001	0.0001	0.001	0.001	0.002	0.48	0.001	0.158	0.0001	0.001
	Jul-24	No	8	87.5	-	503	-	7.30	-	5.44	0.01	0.001	0.0001	0.001	0.001	0.002	0.07	0.001	0.025	0.0001	0.001
	Aug-24	No	11.4	83.0	-	408.8	-	7.74	-	76.59	0.01	0.001	0.0001	0.001	0.001	0.002	0.07	0.001	0.020	0.0001	0.001
	Sep-24	No	9.7	87.3	-	424.6	-	7.68	-	6.13	0.01	0.001	0.0001	0.001	0.001	0.002	0.06	0.001	0.045	0.0001	0.001
	Oct-24	No	12.4	86.5	-	432.4	-	7.59	-	2.2	0.01	0.001	0.0001	0.001	0.001	0.002	0.10	0.001	0.036	0.0001	0.001
	Nov-24	No	12.1	83.1	9.9	537	537	7.91	254	3.6	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Dec-24	No	17.6	87.4	9.4	278.1	473	8.24	252	6.7	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.005	0.0001	0.001
	Jan-25	Yes	17.8	76.9	9.1	128.7	563	8.05	198	14.89	0.01	0.001	0.0001	0.001	0.001	0.002	0.07	0.001	0.041	0.0001	0.001
	Feb-25	Yes	18.6	79.2	9.3	136.1	591	7.80	187	7.23	0.01	0.001	0.0001	0.001	0.001	0.002	0.06	0.001	0.105	0.0001	0.001
	Mar-25	Yes	22	59.6	8.7	134.7	610	7.62	173	9.64	0.08	0.004	0.0001	0.001	0.015	0.002	2.51	0.001	0.597	0.0001	0.001
YR2-IS	Mar-24	No	12.3	88.5	9.47	130.8	99.1	7.93	43.2	0.1	0.03	0.00015	0.00001	0.000005	0.001	0.001	0.02	0.005	0.001	0.000015	0.001
	Apr-24	No	11.8	97.1	-	139.7	-	8.52	-	1.16	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001
	May-24	No	2.5	94.7	-	142.1	-	7.77	-	0.343	0.01	0.001	0.0001	0.001	0.001	0.024	0.05	0.001	0.004	0.0001	0.001
	Jun-24	No	4.7	97.1	-	118.6	-	7.24	-	0	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001
	Jul-24	No	5.9	93.5	-	58.4	-	6.78	-	8.87	0.17	0.001	0.0001	0.001	0.001	0.002	0.12	0.001	0.002	0.0001	0.001
	Aug-24	No	9.3	93.5	-	58.5	-	7.98	-	6.97	0.06	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Sep-24	No	13.4	93.8	-	66.7	-	7.62	-	1.56	0.04	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.005	0.0001	0.001
	Oct-24	No	11.6	93.7	-	69.9	-	7.34	-	1.8	0.03	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Nov-24	No	15.7	92.1	10	62	111	7.92	235	0.6	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Dec-24	No	13.6	90.3	9.8	44.1	75	7.84	220	5.64	0.09	0.001	0.0001	0.001	0.001	0.002	0.06	0.001	0.001	0.0001	0.001
	Jan-25	No	28.9	90.5	8.8	28.5	123	8.09	226	1.32	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.004	0.0001	0.001
	Feb-25	No	19.3	91.3	9.4	23.3	109	7.97	170	5.89	0.11	0.001	0.0001	0.001	0.001	0.002	0.11	0.001	0.005	0.0001	0.001
	Mar-25	No	22.2	102.1	9.5	39.9	182	8.55	158	0.89	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001
	Apr-25	No	18.1	95.3	10.5	37.7	178	8.46	195	0.94	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001
	May-25	No	10.8	96.8	-	35.7	26	8.87	110.1	1.27	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
SSC-IS	Mar-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jul-24	No	8	90.1	-	152.6	-	6.29	-	17.88	0.1	0.001	0.0001	0.001	0.001	0.002	0.07	0.001	0.002	0.0001	0.001
	Aug-24	No	12.1	94.0	-	120.9	-	7.78	-	3.9	0.04	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Sep-24	No	12.2	84.1	-	122.2	-	7.10	-	3.53	0.05	0.001	0.0001	0.001	0.003	0.002	0.05	0.001	0.002	0.0001	0.001
	Oct-24	No	10.1	81.5	-	110.3	-	6.83	-	8.9	0.08	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Nov-24	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	No	18.8	90.7	9.4	68.5	118	7.97	188	44.29	0.08	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Jan-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-25	No Flow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TALBINGO RESERVOIR																					
DGV		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
LOR				-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May SSGV				91.3	8.79	24.0	20.3	7.59	91.2	0.09	0.03	0.003	0.00002	0.00001	0.0002	0.002	0.04	0.001	0.003	0.00003	0.001
June - Nov SSGV				95.5	11.53	38.7	26.2	7.59	95.4	1.56	0.015	0.0003	0.00002	0.00001	0.0002	0.002	0.02	0.001	0.002	0.00003	0.001
TR-RS	Mar-24	No	13.4	72.5	7.57	24	18.7	7.10	55	0.10	0.015	0.00015	0.00001	0.000005	0.0001	0.001	0.05	0.005	0.005	0.000015	0.0005
	Apr-24	No	12.2	85.9	-	25.9	-	7.17	-	0.02	0.01	0.001	0.0001	0.001	0.005	0.002	0.05	0.001	0.026	0.0001	0.001
	May-24	No	10.1	91.5	-	30.2	-	6.80	-	0.65	0.01	0.001	0.0001	0.001	0.001	0.004	0.05	0.001	0.002	0.0001	0.001
	Jun-24	No	8.7	91.6	-	26.4	-	8.32	-	0.10	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.010	0.0001	0.001
	Jul-24	No	6	92.1	-	28.7	-	7.76	-	1.35	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001
	Aug-24	No	12.7	91.5	-	26.3	-	6.67	-	2.0	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Sep-24	No	10.2	96.2	-	25	-	7.78	-	0.58	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Oct-24	No	9.5	95.2	-	15.3	-	7.78	-	1.7	0.04	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.008	0.0001	0.001
	Nov-24	No	15.6	92.1	9.7	55	55	7.73	271	1.6	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.05	0.0001	0.001
	Dec-24	No	22.8	95.5	9.1	22.2	38	7.97	200	3.76	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Jan-25	No	25.7	91.6	9.1	27.8	44	7.23	234	1.61	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
	Feb-25	No	24.6	94.8	9.1	8.7	40	7.61	168	2.16	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Mar-25	No	21.3	90.1	8.9	8.3	36	7.56	138	3.25	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.002	0.0001	0.001
	Apr-25	No	17.6	67.6	9.9	5.8	26	6.96	190	1.3	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.03	0.0001	0.001
	May-25	No	12.3	88.6	-	5.9	4.5	7.59	109.8	1.68	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.003	0.0001	0.001
YORKERS CREEK CATCHMENT																					
DGV		No	-	90-110	-	30-350	30-350	6.5-8	-	2-25	0.027	0.0008	0.0006	0.00001	0.001	0.004	0.3	0.001	1.2	0.00006	0.008
LOR				-	-	-	-	-	-	0.1	0.01	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.001	0.0001	0.001
Dec - May SSGV				89.6	8.35	31	24	6.79	94.6	9	0.36	0.003	0.00002	0.00001	0.002	0.002	0.41	0.001	0.005	0.00003	0.001

Parameter		TN (mg/L)	TP (mg/L)	Dissolved Ag (mg/L)	Dissolved Zn (mg/L)	Ammonia (mg/L)	Nitrogen Oxides (mg/L)	Reactive Phosphorous (mg/L)	Total Hardness (mg/L) (CaCO3)	Total Kjedahl Nitrogen (mg/L) (TKN)	TDS (mg/L)	TSS (mg/L)	Total Al (mg/L)	Total As (mg/L)	Total Cd (mg/L)	Total Cr (mg/L)	Total Cu (mg/L)	Total Pb (mg/L)	Total Mn (mg/L)	Total Ni (mg/L)	Total Ag (mg/L)	Total Zn (mg/L)	Total Fe (mg/L)	Total Hg (mg/L)
YARRANGOBILLY CATCHMENT																								
Default Guideline Value (DGV)		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
Limit of Reporting (LOR)		0.1	0.01	0.001	0.005	0.010	0.010	0.010	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May Site Specific Guideline Value (SSGV)		0.2	0.02	0.00002	0.002	0.013	0.015	0.020	47	0.2	52	0.2												
June - Nov SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.015	30	0.2	39	1.0												
WC-RS	Mar-24	0.1	0.03	0.00001	0.001	0.050	0.05	0.005	42	0.1	70	0.1	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	0.1	0.02	0.001	0.005	0.010	0.01	-	70	0.01	-	1	0.02	0.001	0.0001	0.001	0.001	0.001	0.01	0.001	0.001	0.005	0.05	0.0001
	May-24	0.1	0.02	0.001	0.005	0.020	0.01	0.01	77	0.1	102	5	0.01	0.001	0.0001	0.001	0.001	0.001	0.007	0.001	0.001	0.005	0.05	0.0001
	Jun-24	0.2	0.01	0.001	0.005	0.010	0.23	0.01	53	0.1	81	2	0.01	0.001	0.0001	0.001	0.001	0.001	0.007	0.001	0.001	0.005	0.05	0.0001
	Jul-24	0.1	0.05	0.001	0.005	0.010	0.01	0.01	17	0.1	38	8	0.09	0.001	0.0001	0.001	0.001	0.001	0.01	0.001	0.001	0.005	0.09	0.0001
	Aug-24	0.1	0.01	0.001	0.032	0.010	0.01	0.01	28	0.1	51	4	0.06	0.001	0.0001	0.001	0.001	0.001	0.007	0.001	0.001	0.005	0.07	0.0001
	Sep-24	0.4	0.03	0.001	0.005	0.040	0.22	0.01	31	0.2	65	3	0.04	0.001	0.0001	0.001	0.001	0.001	0.005	0.001	0.001	0.005	0.05	0.0001
	Oct-24	0.1	0.02	0.001	0.005	0.010	0.02	0.01	31	0.1	46	1	0.07	0.001	0.0001	0.001	0.001	0.001	0.004	0.001	0.001	0.005	0.1	0.0001
	Nov-24	0.1	0.06	0.001	0.005	0.020	0.02	0.01	36	0.1	60	2	0.01	0.001	0.0001	0.001	0.001	0.001	0.003	0.001	0.001	0.005	0.05	0.0001
	Dec-24	0.1	0.01	0.001	0.005	0.010	0.01	0.01	31	0.1	51	2	0.09	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.08	0.0001
*sample not an	Jan-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	0.2	0.06	0.001	0.005	0.040	0.02	0.01	57	0.2	61	2	0.16	0.001	0.0001	0.001	0.001	0.001	0.011	0.001	0.001	0.008	0.15	0.0001
	Mar-25	0.2	0.02	0.001	0.005	0.020	0.01	0.01	70	0.2	90	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.01	0.001	0.001	0.005	0.05	0.0001
	Apr-25	0.1	0.01	0.001	0.005	0.020	0.01	0.01	80	0.1	88	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.009	0.001	0.001	0.005	0.06	0.0001
	May-25	2.9	0.01	0.001	0.005	0.020	2.5	0.01	77	0.4	104	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.009	0.001	0.001	0.005	0.05	0.0001
WC-IS	Mar-24	0.1	0.005	0.00001	0.001	0.050	0.05	0.005	42	0.1	88	0.1	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	2.7	0.02	0.001	0.005	0.010	2.42	-	67	2.42	-	11	0.15	0.001	0.0001	0.001	0.001	0.001	0.022	0.004	0.001	0.005	0.22	0.0001
	May-24	0.4	0.02	0.001	0.005	0.010	0.31	0.01	75	0.1	106	5	0.01	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.05	0.0001
	Jun-24	0.1	0.01	0.001	0.005	0.010	0.02	0.04	53	0.1	81	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.005	0.001	0.001	0.005	0.05	0.0001
	Jul-24	0.1	0.02	0.001	0.005	0.010	0.01	0.01	17	0.1	42	5	0.11	0.001	0.0001	0.001	0.001	0.001	0.011	0.001	0.001	0.005	0.1	0.0001
	Aug-24	0.1	0.01	0.001	0.006	0.010	0.03	0.01	28	0.1	45	4	0.06	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.06	0.0001
	Sep-24	7.6	0.02	0.001	0.017	0.010	7.21	0.01	33	0.4	113	3	0.02	0.001	0.0001	0.001	0.001	0.001	0.002	0.001	0.001	0.005	0.05	0.0001
	Oct-24	0.2	0.03	0.001	0.005	0.010	0.02	0.01	31	0.2	39	2	0.08	0.001	0.0001	0.001	0.001	0.001	0.004	0.005	0.001	0.005	0.12	0.0001
	Nov-24	0.1	0.01	0.001	0.005	0.010	0.01	0.01	38	0.1	58	1	0.02	0.001	0.0001	0.001	0.001	0.001	0.003	0.001	0.001	0.005	0.05	0.0001
	Dec-24	0.1	0.01	0.001	0.005	0.010	0.01	0.01	33	0.1	51	2	0.08	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.09	0.0001
	Jan-25	0.2	0.01	0.001	0.005	0.010	0.01	0.01	51	0.2	82	1	0.04	0.001	0.0001	0.001	0.001	0.001	0.015	0.001	0.001	0.005	0.07	0.0001
	Feb-25	0.2	0.02	0.001	0.005	0.040	0.01	0.01	57	0.2	68	1	0.14	0.001	0.0001	0.001	0.001	0.001	0.01	0.001	0.001	0.005	0.14	0.0001
	Mar-25	0.1	0.03	0.001	0.005	0.020	0.01	0.01	70	0.1	85	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.007	0.001	0.001	0.005	0.05	0.0001
	Apr-25	0.1	0.03	0.001	0.005	0.030	0.01	0.01	75	0.1	87	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.06	0.0001
CG-IS	Mar-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jul-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aug-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sep-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Oct-24	0.1	0.02	0.001	0.005	0.010	0.01	0.01	294	0.1	298	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
	Nov-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	0.1	0.01	0.001	0.005	0.010	0.02	0.01	287	0.1	336	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
	Jan-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YR1-IS	Mar-24	0.1	0.005	0.00001	0.001	0.050	0.05	0.005	34	0.1	66	0.1												
	Apr-24	0.1	0.01	0.001	0.005	0.010	0.05	-	61	0.05	-	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.002	0.001	0.001	0.005	0.05	0.0001
	May-24	0.1	0.02	0.001	0.005	0.010	0.01	0.01	68	0.1	95	5	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
	Jun-24	0.1	0.01	0.001	0.005	0.010	0.01	0.03	51	0.1	68	1	0.03	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
	Jul-24	0.2	0.02	0.001	0.005	0.010	0.01	0.01	19	0.2	48	7	0.17	0.001	0.0001	0.001	0.001	0.001	0.009	0.001	0.001	0.005	0.15	0.0001
	Aug-24	0.2	0.01	0.001	0.005	0.010	0.01	0.01	33	0.2	55	3	0.12	0.001	0.0001	0.001	0.001	0.001	0.004	0.001	0.001	0.005	0.09	0.0001
	Sep-24	0.1	0.04	0.001	0.005	0.010	0.02	0.01	38	0.1	68	2	0.06	0.001	0.0001	0.001	0.001	0.001	0.003	0.001	0.001	0.005	0.05	0.0001
	Oct-24	0.1	0.02	0.001	0.006	0.020	0.01	0.01	41	0.1	60	2	0.08	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.09	0.0001
	Nov-24	0.1	0.01	0.001	0.005	0.010	0.01	0.01	48	0.1	74	1	0.04	0.001	0.0001	0.001	0.001	0.001	0.003	0.001	0.001	0.005	0.05	0.0001
	Dec-24	0.1	0.01	0.001	0.005	0.010	0.02	0.01	31	0.1	52	4	0.17	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.039	0.15	0.0001
	Jan-25	0.6	0.05	0.001	0.005	0.080	0.05	0.01	56	0.6	81	47	0.27	0.001	0.0001	0.001	0.001	0.001	0.051	0.001	0.001	0.009	0.33	0.0001
	Feb-25	0.2	0.03	0.001	0.005	0.040	0.02	0.01	46	0.2	51	4	0.15	0.001	0.0001	0.001	0.001	0.001	0.01	0.001	0.001	0.015	0.16	0.0001
	Mar-25	0.1	0.01	0.001	0.005	0.030	0.01	0.01	90	0.1	100	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.003	0.001	0.001	0.005	0.05	0.0001
	Apr-25	0.2	0.02	0.001	0.005	0.040	0.01	0.01	87	0.2	100	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.05	0.0001
	May-25	0.1	0.01	0.001	0.005	0.020	0.01	0.01	82	0.1	96	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.002	0.001	0.001	0.005	0.05	0.0001
LHG-IS	Mar-24	0.1	0.01	0.00001	0.006	0.050	0.05	0.005	297	1	330	20												
	Apr-24	0.5	0.09	0.001	0.005	0.020	0.02	-	332	0.02	-	70	0.25	0.003	0.0001	0.001	0.002	0.001	0.51	0.006	0.001	0.009	2.22	0.0001
	May-24	0.5	0.05	0.001	0.005	0.040	0.06	0.01	365	0.4	402	5	0.07	0.001	0.0001	0.001	0.001	0.001	0.177	0.001	0.001	0.005	1.09	0.0001
	Jun-24	0.2	0.04	0.001	0.005	0.020	0.02	0.01	313	0.2	339	17	0.38	0.002	0.0001	0.001	0.001	0.001	0.282	0.001	0.001	0.005	1.54	0.0001
	Jul-24	0.1	0.01	0.001	0.005	0.010	0.01	0.01	250	0.1	324	10	0.53	0.001	0.0001	0.001	0.002	0.001	0.033	0.001	0.001	0.005	0.16	0.0001
	Aug-24	0.1	0.01	0.001	0.006	0.020	0.01	0.01	282	0.1	360	9	0.09	0.001	0.0001	0.001	0.001	0.001	0.026	0.001	0.001	0.005	0.17	0.0001
	Sep-24	0.1	0.09	0.001	0.006	0.010	0.01	0.01	294	0.1	394	10	0.06	0.001	0.0001	0.001	0.001	0.001	0.051	0.001	0.001	0.005	0.19	0.0001
	Oct-24	0.1	0.02	0.001	0.005	0.020	0.01	0.01	312	0.1	362	3	0.04	0.001	0.0001	0.001	0.001	0.001	0.034	0.001	0.001	0.005	0.26	0.0001
	Nov-24	0.1	0.01	0.001	0.005	0.100	0.01	0.01	307	0.1	363	16	0.15	0.001	0.0001	0.001	0.001	0.001	0.023	0.001	0.001	0.005	0.21	0.0001
	Dec-24	0.1	0.02	0.001	0.005	0.010	0.01	0.01	264	0.1	298	7	0.13	0.001	0.0001	0.001	0.001	0.001	0.014	0.001	0.001	0.005	0.12	0.0001
	Jan-25	0.1	0.04	0.001	0.005	0.030	0.01	0.01	333	0.1	362	33	0.26	0.002	0.0001	0.001	0.001	0.001	0.219	0.001	0.001	0.005	1.13	0.0001
	Feb-25	0.3	0.08	0.001	0.005	0.010	0.06	0.01	333	0.2	378	11	0.09	0.001	0.0001	0.001	0.001	0.001	0.121	0.001	0.001	0.007	0.41	0.0001
	Mar-25	0.3	0.1	0.001	0.005	0.070	0.04	0.01	326	0.3	372	50	0.1	0.001	0.0001	0.001	0.01	0.001	0.559	0.001	0.001	0.006	4.16	0.0001
YR2-IS	Mar-24	0.1	0.005	0.00001	0.001	0.050	0.05	0.005	27	1	58	0.1												
	Apr-24	0.1	0.01	0.001	0.005	0.010	0.01	-	61	0.01	-	5	0.02	0.001	0.0001	0.001	0.001	0.001	0.004	0.001	0.001	0.005	0.05	0.0001
	May-24	0.8	0.03	0.001	0.007	0.020	0.34	0.01	68	0.5	98	5	0.01	0.001	0.0001	0.001	0.001	0.001	0.002	0.001	0.001	0.007	0.05	0.0001
	Jun-24	0.1	0.01	0.001	0.005	0.010	0.01	0.01	51	0.1	76	1	0.03	0.001	0.0001	0.001	0.001	0.001	0.002	0.001	0.001	0.005	0.05	0.0001
	Jul-24	0.4	0.03	0.001	0.005	0.010	0.24	0.01	26	0.2	46	10	0.17	0.001	0.0001	0.001	0.001	0.001	0.012	0.001	0.001	0.007	0.16	0.0001
	Aug-24	0.1	0.01	0.001	0.005	0.010	0.01	0.01	33	0.1	59	4	0.11	0.001	0.0001	0.001	0.001	0.001	0.005	0.001	0.001	0.005	0.09	0.0001
	Sep-24	0.1	0.02	0.001	0.005	0.010	0.01	0.01	46	0.1	68	3	0.07	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.07	0.0001
	Oct-24	0.2	0.05	0.001	0.005	0.010	0.01	0.01	43	0.2	71	1	0.07	0.001	0.0001	0.001	0.001	0.001	0.002	0.001	0.001	0.005	0.08	0.0001
	Nov-24	0.1	0.05	0.001	0.005	0.010	0.02	0.01	51	0.1	77	1	0.04	0.001	0.0001	0.001	0.001	0.001	0.005	0.001	0.001	0.005	0.05	0.0001
	Dec-24	0.1	0.01	0.001	0.005	0.020	0.08	0.01	33	0.1	55	6	0.21	0.001	0.0001	0.001	0.001	0.001	0.007	0.001	0.001	0.005	0.18	0.0001
	Jan-25	0.2	0.01	0.001	0.005	0.010	0.01	0.01	63	0.2	87	1	0.2	0.001	0.0001	0.001	0.001	0.001	0.004	0.001	0.001	0.005	0.05	0.0001
	Feb-25	0.4	0.02	0.001	0.005	0.020	0.05	0.01	48	0.3	72	5	0.2	0.001	0.0001	0.001	0.001	0.001	0.01	0.001	0.001	0.005	0.21	0.0001
	Mar-25	0.1	0.01	0.001	0.005	0.010	0.01	0.01	90	0.1	104	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.004	0.001	0.001	0.005	0.05	0.0001
	Apr-25	0.1	0.04	0.001	0.005	0.020	0.02	0.01	87	0.1	100	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.004	0.001	0.001	0.005	0.05	0.0001
	May-25	0.1	0.01	0.001	0.005	0.010	0.03	0.01	82	0.1	94	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.002	0.001	0.001	0.005	0.05	0.0001
SSC-IS	Mar-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jun-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Jul-24	1.8	0.03	0.001	0.024	0.030	0.85	0.01	62	0.9	110	1	0.09	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.025	0.4	0.0001
	Aug-24	0.1	0.01	0.001	0.005	0.010	0.01	0.01	62	0.1	110	5	0.21	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.09	0.0001
	Sep-24	0.7	0.03	0.001	0.036	0.010	0.07	0.01	65	0.6	108	5	0.10	0.001	0.0001	0.001	0.003	0.001	0.004	0.001	0.001	0.028	0.08	0.0001
	Oct-24	0.4	0.02	0.001	0.005	0.010	0.18	0.01	58	0.2	100	1	0.13	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.1	0.0001
	Nov-24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dec-24	0.1	0.01	0.001	0.005	0.01	0.01	0.01	53	0.1	85	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mar-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Apr-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	May-25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TALBINGO RESERVOIR																								
DGV		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
LOR		0.1	0.01	0.001	0.005	0.010	0.010	0.01	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.02	7.5	0.1	12.5	0.2												
June - Nov SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.015	8	0.2	15	0.2												
TR-RS	Mar-24	0.1	0.01	0.00001	0.001	0.050	0.05	0.005	8	0.1	44	0.1												
	Apr-24	1.3	0.02	0.001	0.066	0.030	0.12	-	5	0.12	-	3	0.02	0.001	0.0001	0.001	0.006	0.001	0.039	0.002	0.001	0.067	0.07	0.0001
	May-24	0.3	0.03	0.001	0.023	0.020	0.03	0.01	5	0.3	35	5	0.03	0.001	0.0001	0.001	0.001	0.001	0.033	0.001	0.001	0.012	0.06	0.0001
	Jun-24	2.3	0.01	0.001	0.005	0.010	1.92	0.01	5	0.4	17	2	0.03	0.001	0.0001	0.001	0.001	0.001	0.056	0.001	0.001	0.005	0.07	0.0001
	Jul-24	0.1	0.02	0.001	0.005	0.030	0.04	0.01	5	0.1	17	2	0.05	0.001	0.0001	0.001	0.001	0.001	0.014	0.001	0.001	0.005	0.06	0.0001
	Aug-24	0.4	0.02	0.001	0.011	0.020	0.07	0.01	12	0.3	30	1	0.04	0.001	0.0001	0.001	0.001	0.001	0.004	0.001	0.001	0.008	0.05	0.0001
	Sep-24	0.2	0.03	0.001	0.005	0.010	0.06	0.01	14	0.1	27	2	0.06	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.07	0.0001
	Oct-24	0.2	0.02	0.001	0.013	0.040	0.02	0.01	14	0.2	38	4	0.07	0.001	0.0001	0.001	0.001	0.001	0.01	0.001	0.001	0.005	0.11	0.0001
	Nov-24	0.1	0.05	0.001	0.005	0.010	0.02	0.01	21	0.1	45	5	0.14	0.001	0.0001	0.001	0.001	0.001	0.07	0.001	0.001	0.005	0.23	0.0001
	Dec-24	0.1	0.06	0.001	0.005	0.010	0.01	0.01	14	0.1	25	2	0.04	0.001	0.0001	0.001	0.001	0.001	0.007	0.001	0.001	0.007	0.06	0.0001
	Jan-25	0.2	0.02	0.001	0.005	0.020	0.01	0.01	17	0.2	46	6	0.03	0.001	0.0001	0.001	0.001	0.001	0.018	0.001	0.001	0.005	0.05	0.0001
	Feb-25	0.2	0.03	0.001	0.005	0.020	0.01	0.01	14	0.2	28	1	0.04	0.001	0.0001	0.001	0.001	0.001	0.017	0.001	0.001	0.005	0.07	0.0001
	Mar-25	0.2	0.03	0.001	0.005	0.010	0.01	0.01	14	0.2	28	1	0.04	0.001	0.0001	0.001	0.001	0.001	0.019	0.001	0.001	0.005	0.06	0.0001
	Apr-25	0.4	0.05	0.001	0.005	0.020	0.05	0.01	5	0.3	22	1	0.03	0.001	0.0001	0.001	0.001	0.001	0.051	0.001	0.001	0.005	0.09	0.0001
	May-25	0.2	0.07	0.001	0.005	0.030	0.01	0.02	9	0.2	16	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.03	0.001	0.001	0.005	0.05	0.0001
YORKERS CREEK CATCHMENT																								
DGV		0.25	0.02	0.00002	0.0024	0.013	0.015	0.015	-	-	-	0.2	0.027	0.0008	0.0006	0.00001	0.001	0.001	1.2	0.008	0.00002	0.0024	0.3	0.00006
LOR		0.1	0.01	0.001	0.005	0.010	0.010	0.01	1	0.1	10	1	0.01	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.05	0.0001
Dec - May SSGV		0.2	0.02	0.00002	0.002	0.013	0.015	0.02	1	0.1	30	3												

June - Nov SSGV				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
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
	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
	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
	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
	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
	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
	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
	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
	Nov-24	No	19.3	84.8	9	30	30	6.68	259	13.8	0.06	0.001	0.0001	0.001	0.001	0.002	0.12	0.001	0.014
	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
	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
	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
	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
	Apr-25	No	11	77.6	10.2	8.6	39	7.64	148	15.23	0.12	0.001	0.0001	0.001	0.001	0.002	0.17	0.001	0.004
	May-25	Yes	4.2	83.9	-	9.1	5.5	7.73	116.9	11.81	0.08	0.001	0.0001	0.001	0.001	0.002	0.14	0.001	0.004
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
	Apr-24	No	5.9	86.0	-	39.4	-	7.33	-	221.78	0.05	0.001	0.0001	0.001	0.001	0.002	0.11	0.001	0.014
	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
	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
	Jul-24	No	3.2	85.0	-	32.8	-	7.11	-	8.29	0.28	0.001	0.0001	0.001	0.001	0.002	0.22	0.001	0.005
	Aug-24	No	7.3	84.7	-	23.2	-	6.85	-	22.38	0.51	0.001	0.0001	0.001	0.001	0.002	0.34	0.001	0.011
	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
	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
	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
	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
	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
	Feb-25	No	20.5	85.0	9.3	10.4	47	7.09	150	5.32	0.14	0.001	0.0001	0.001	0.001	0.002	0.24	0.001	0.016
	Mar-25	No	15.9	89.2	9.6	10.7	48	7.32	152	3.01	0.07	0.001	0.0001	0.001	0.002	0.002	0.21	0.001	0.016
	Apr-25	No	12.5	84.0	10.7	11.1	49	7.42	166	2.71	0.04	0.001	0.0001	0.001	0.001	0.002	0.1	0.001	0.018
	May-25	No	5.4	85.5	-	10.6	6.6	7.54	111.1	2.84	0.05	0.001	0.0001	0.001	0.001	0.002	0.1	0.001	0.013
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
	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
	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
	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
	Jul-24	No	3.7	83.9	-	34.8	-	7.44	-	13.66	0.2	0.001	0.0001	0.001	0.001	0.002	0.18	0.001	0.004
	Aug-24	No	7.7	84.4	-	28.9	-	6.95	-	15.47	0.44	0.001	0.0001	0.001	0.001	0.002	0.31	0.001	0.008
	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
	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
	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
	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
	Jan-25	No	13.6	75.2	9.3	42.7	72	7.40	208	4.83	0.02	0.001	0.0001	0.001	0.001	0.005	0.05	0.001	0.004
	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
	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
	Apr-25	No	9	78.4	10.7	16.6	75	8.24	177	2.03	0.05	0.001	0.0001	0.001	0.001	0.002	0.1	0.001	0.007
	May-25	No	3.7	80.3	-	16.4	9.7	7.71	117.1	1.78	0.02	0.001	0.0001	0.001	0.001	0.002	0.05	0.001	0.004
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
	Apr-24	No	6.8	80.7	-	36.5	-	7.04	-	12.37	0.09	0.001	0.0001	0.001	0.001	0.002	0.15	0.001	0.016
	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
	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
	Jul-24	No	3.2	82.8	-	32.5	-	7.00	-	11.9	0.31	0.001	0.0001	0.001	0.001	0.002	0.25	0.001	0.008
	Aug-24	No	7.2	81.3	-	23.5	-	6.70	-	25.12	0.67	0.001	0.0001	0.001	0.001	0.002	0.46	0.001	0.015
	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
	Oct-24	No	13.7	86.3		23.7		7.83		3.1	0.07	0.001	0.0001	0.001	0.001	0.002	0.06	0.001	0.004
	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
	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
	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
	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
	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
	Apr-25	Yes	11.9	65.4	9.7	10.9	49	6.93	183	7.27	0.07	0.001	0.0001	0.001	0.001	0.002	0.19	0.001	0.036
	May-25	No	4.9	70.3	-	9.7	6	7.21	15.8	5.62	0.08	0.001	0.0001	0.001	0.001	0.002	0.18	0.001	0.021

June - Nov SSGV		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	0.000015	0.0005	0.1	0.03	0.00001	0.003	0.050	0.05	0.005	1	0.1	30	3												
	Apr-24	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	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	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	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	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	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	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	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	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	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	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	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
	Apr-25	0.0001	0.001	0.2	0.01	0.001	0.005	0.040	0.01	0.01	16	0.2	30	8	0.78	0.001	0.0001	0.001	0.001	0.001	0.009	0.001	0.001	0.005	0.74	0.0001
	May-25	0.0001	0.001	0.3	0.02	0.001	0.005	0.010	0.18	0.01	16	0.1	33	4	0.52	0.001	0.0001	0.001	0.001	0.001	0.009	0.001	0.001	0.005	0.63	0.0001
YK-IS (D/S)	Mar-24	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	0.0001	0.001	0.1	0.02	0.001	0.005	0.010	0.03	-	16	0.03	-	3	0.1	0.001	0.0001	0.001	0.001	0.001	0.016	0.003	0.001	0.006	0.26	0.0001
	May-24	0.0001	0.001	0.8	0.04	0.001	0.005	0.010	0.53	0.01	12	0.3	39	9	0.12	0.001	0.0001	0.003	0.001	0.001	0.035	0.002	0.001	0.005	0.61	0.0001
	Jun-24	0.0001	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	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	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	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	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	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	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	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	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	0.0001	0.001	0.3	0.02	0.001	0.005	0.050	0.09	0.01	18	0.2	43	2	0.06	0.001	0.0001	0.001	0.001	0.001	0.019	0.001	0.001	0.005	0.33	0.0001
	Apr-25	0.0001	0.001	0.2	0.02	0.001	0.005	0.030	0.01	0.01	18	0.2	39	1	0.08	0.001	0.0001	0.001	0.001	0.001	0.02	0.001	0.001	0.005	0.26	0.0001
	May-25	0.0001	0.001	0.1	0.01	0.001	0.005	0.010	0.01	0.01	18	0.1	36	1	0.17	0.001	0.0001	0.001	0.001	0.001	0.033	0.001	0.001	0.005	0.44	0.0001
NZG-IS	Mar-24	0.000015	0.0005	0.1	0.01	0.00001	0.002	0.050	0.05	0.005	10	0.1	22	0.1												
	Apr-24	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	0.0001	0.001	0.2	0.06	0.001	0.007	0.010	0.03	0.01	23	0.2	60	5	0.06	0.001	0.0001	0.001	0.001	0.001	0.021	0.001	0.001	0.005	0.35	0.0001
	Jun-24	0.0001	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	0.0001	0.001	0.2	0.04	0.001	0.005	0.010	0.04	0.01	12	0.2	52	8	0.22	0.001	0.0001	0.001	0.001	0.001	0.009	0.001	0.001	0.005	0.26	0.0001
	Aug-24	0.0001	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	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	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	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	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	0.0001	0.001	0.4	0.02	0.001	0.005	0.070	0.4	0.01	26	0.4	74	4	0.06	0.001	0.0001	0.001	0.001	0.001	0.008	0.001	0.001	0.005	0.16	0.0001
	Feb-25	0.0001	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	0.0001	0.001	0.2	0.02	0.001	0.005	0.010	0.17	0.02	32	0.1	66	2	0.11	0.001	0.0001	0.001	0.001	0.001	0.007	0.001	0.001	0.005	0.18	0.0001
	Apr-25	0.0001	0.001	0.2	0.04	0.001	0.005	0.020	0.01	0.01	30	0.2	58	1	0.04	0.001	0.0001	0.001	0.001	0.001	0.006	0.001	0.001	0.005	0.12	0.0001
	May-25	0.0001	0.001	0.1	0.02	0.001	0.005	0.010	0.01	0.02	30	0.1	54	1	0.11	0.001	0.0001	0.001	0.005	0.001	0.008	0.001	0.001	0.011	0.16	0.0001
YK-IS	Mar-24	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	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	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	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	0.0001	0.001	0.3	0.07	0.001	0.009	0.010	0.01	0.01	9	0.3	52	7	0.8	0.001	0.0001	0.001	0.001	0.001	0.015	0.001	0.001	0.005	0.62	0.0001
	Aug-24	0.0001	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	0.003	0.001	0.001	0.026	0.001	0.001	0.005	0.99	0.0001
	Sep-24	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	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	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	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	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	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	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
	Apr-25	0.0001	0.001	0.2	0.02	0.001	0.005	0.020	0.04	0.01	21	0.2	37	4	0.15	0.001	0.0001	0.001	0.001	0.001	0.095	0.001	0.001	0.005	0.88	0.0001
	May-25	0.0001	0.001	0.1	0.03	0.001	0.005	0.010	0.01	0.01	14	0.1	33	1	0.15	0.001	0.0001	0.001	0.001	0.001	0.027	0.001	0.001	0.005	0.58	0.0001

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