Our ref: SSD-7592-Mod-11

Stephen Barry
Planning Director
Independent Planning Commission NSW
Via email: [redacted]

24 March 2025

Subject: Response to questions regarding Springvale Water Treatment Project Modification 11 (SSD-7592 MOD 11)

Dear Mr Barry

I refer to your requests seeking a response to questions raised by the Independent Planning Commission (the Commission) regarding Springvale Water Treatment Project Modification 11 (SSD-7592 MOD 11) dated 20 March 2025 and 21 March 2025. The Department's response to each of the Commission's questions is set out below.

Information Request dated 20 March 2025

Question 1: What are the baseline salinity levels for the Thompsons Creek catchment above the influence of coal mining and power generation (median and 95th percentile)?

The Department is not aware of any water quality monitoring undertaken in Thompsons Creek upstream of the Thompsons Creek Reservoir, noting that the catchment area of Thompsons Creek is very small (9-10 km^2).

However, Energy Australia monitors water quality in Thompsons Creek below Thompsons Creek Reservoir at monitoring site TCFM1 and in Pipers Flat Creek downstream of Thompsons Creek. Monitoring results are presented in Energy Australia's *Water Access Licence and Approval Annual Compliance Report July 2023 – June 2024* and *Springvale Water Treatment Project 2023 Annual Review* respectively.

Average electrical conductivity (EC) at TCFM1 is reported to be 510 µs/cm over the reporting period, which was similar to the historical median EC concentration recorded at this monitoring site (see **Appendix A**). The 95th percentile EC concentration at TCFM1 was reported to be slightly higher than the median value (approximately 520 µs/cm) (see **Appendix A**).

Question 2: How and why were the regulatory limits set for releases from the Thompsons Creek Reservoir (as opposed to discharges from the Springvale Water Treatment Facility)?

Releases from Thompsons Creek Reservoirs are regulated by the *Greater Metropolitan Water Sharing Plan for Unregulated River Water Sources 2023* (the Water Sharing Plan).

Part 8A, section 57J of the Water Sharing Plan requires that:

> *57J Wallerawang Dam, Thompsons Creek Dam and Wingecarribee Reservoir*
>
> *(2) A daily release must be made from Thompsons Creek Dam of at least the following as measured at V Notch Weirs at Thompsons Creek Reservoir—*
>
> *(a) between 1 September and 30 April, inclusive—0.8ML/day,*
>
> *(b) between 1 May and 31 August, inclusive—0.3ML/day.*

This requirement is replicated as condition MW5878-0019 of Energy Australia's Water Access Licence approval (WAL 10CA117220) issued under section 66 (1) (a) of the *Water Management Act 2000.*

> MW5878-00019
>
> *A. Daily releases of water must be made from Thompsons Creek Reservoir equal to:*
>
> *i. 0.8 ML/day between 1 September and 30 April, or*
>
> *ii. 0.3 ML/day between 1 May and 31 August.*
>
> *B. The volume of releases must be calculated in accordance with the Energy Australia Operating Manual, signed December 2007, or as amended or replaced from time to time. A copy of the protocol is held at the Natural Resources Access Regulator, Parramatta Office.*

Questions 3: Is the Department satisfied that the Applicant's use of 95th percentile data for water quality and quantity is appropriate in the context of this Application?

The Department is satisfied that the use of 95th percentile data represents a highly conservative worst-case scenario. The modification also models a more likely 75th percentile scenario and presents a range of statistical descriptors for the data presented, including median.

Supplementary Information Request dated 21 March 2025

Question 1: Whether SSD-7592 currently authorises any mine water discharges (whether treated, untreated or partially treated) to the Sydney Drinking Water Catchment (including to the Thompsons Creek Reservoir) - i.e. is the Springvale Water Treatment Facility currently required to be a nil discharge water management system?

Condition 6, Schedule 2 of SSD-7592 authorises the transfer of excess treated water from the Springvale Water Treatment Plant to Thompsons Creek Reservoir.

As detailed in the Department's Assessment Report, water levels in Thompsons Creek Reservoir are managed by Energy Australia through a combination of measures, including daily environmental releases to Thompsons Creek. Thompsons Creek forms part of the Sydney Drinking Water Catchment.

The impact of environmental releases on downstream water quality was assessed and approved as part of the original consent for the Springvale Water Treatment Project.

Question 2: If the answer to Q1 is that any discharges to the Sydney Drinking Water Catchment are authorised, please provide a table setting out any controls that currently apply to those discharges under SSD-7592.

Condition 3 Schedule 3 of SSD-7592 establishes water management performance measures for downstream watercourses (refer to **Table 1**).

Table 1 | Water management performance measures

Feature	Performance Measure
Upper Coxs River catchment, including Coxs River, Wangcol Creek, Pipers Flat Creek and Thompsons Creek	Negligible environmental consequences to surface water resources beyond those predicted in the EIS, including: • negligible change in surface water flows beyond those predicted; • negligible change in surface water quality beyond those predicted; and • negligible impact to other surface water users beyond those predicted. Maintain or improve baseline channel stability

Condition 4 Schedule 3 of SSD-7592 requires the preparation and implementation of a Water Management Plan for the project, including a program to monitor and report on the performance measures outlined in **Table 1**.

The approved Water Management Plan water monitoring program is outlined in **Table 2**.

Table 2 | Water quality monitoring program

Watercourse	Monitoring Site	Data Owner	Monitoring Program
N/A	LDP006	Western Coal Services	Volume and quality Daily, monthly and quarterly during discharge
Wangcol Creek	Wangcol Creek Gauge	Western Coal Services	Monthly water quality sampling
Wangcol Creek	Wangcol Creek Upstream	Western Coal Services	Monthly water quality sampling

Watercourse	Monitoring Site	Data Owner	Monitoring Program
Wangcol Creek	Wangcol Creek Downstream	Western Coal Services	Monthly water quality sampling
Wangcol Creek	Wangcol Creek Far Downstream	Western Coal Services	Monthly water quality sampling
Coxs River	Coxs River (Delta Site) Downstream of Lake Wallace	Springvale Coal	Biannual water quality sampling[1]
Thompsons Creek Reservoir	TC1	Energy Australia	Monthly / Weekly water quality sampling[2]
Thompsons Creek	Confluence Thompsons Creek and Pipers Flat Creek	Energy Australia	One event prior to the Project EIS. At least quarterly water quality sampling recommended
Pipers Flat Creek	PFup	Energy Australia	Monthly / Quarterly water quality sampling. Biannual aquatic ecology monitoring
Coxs River	CR5	Springvale Coal	Biannual aquatic ecology monitoring

Thank you for the opportunity to provide this additional information to support the Commission's deliberations regarding the project.

If you wish to discuss the matter further, please contact Jessie Evans on [redacted] or [redacted]

Yours sincerely,

[redacted]

Jessie Evans

Director

Energy and Resource Assessments

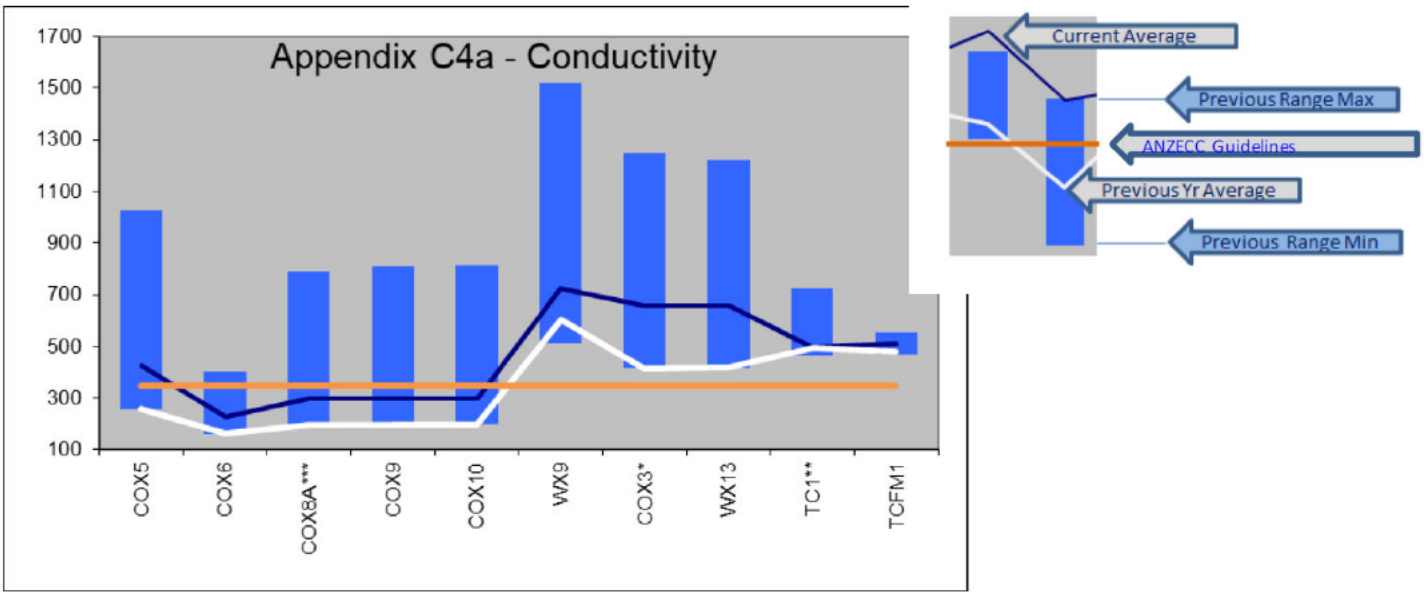
Enclosed: Appendix A – Historical Water Quality Trends

[1] Minimum frequency of historical data (GHD, 2016b)

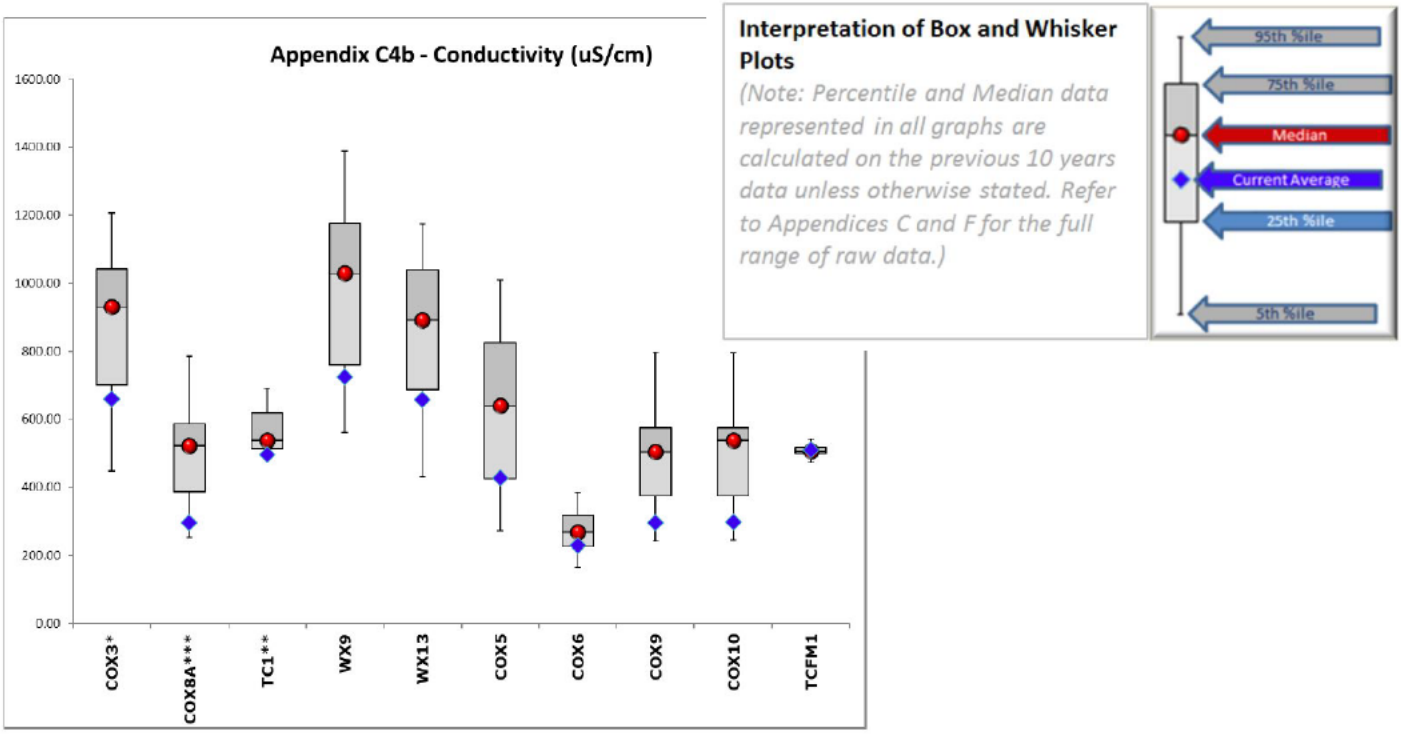
[2] Frequency increased from Monthly to weekly in May 2016 (GHD, 2016b)

Appendix A – Historical Water Quality Trends

Thompsons Creek Monitoring Site (TCFM1)



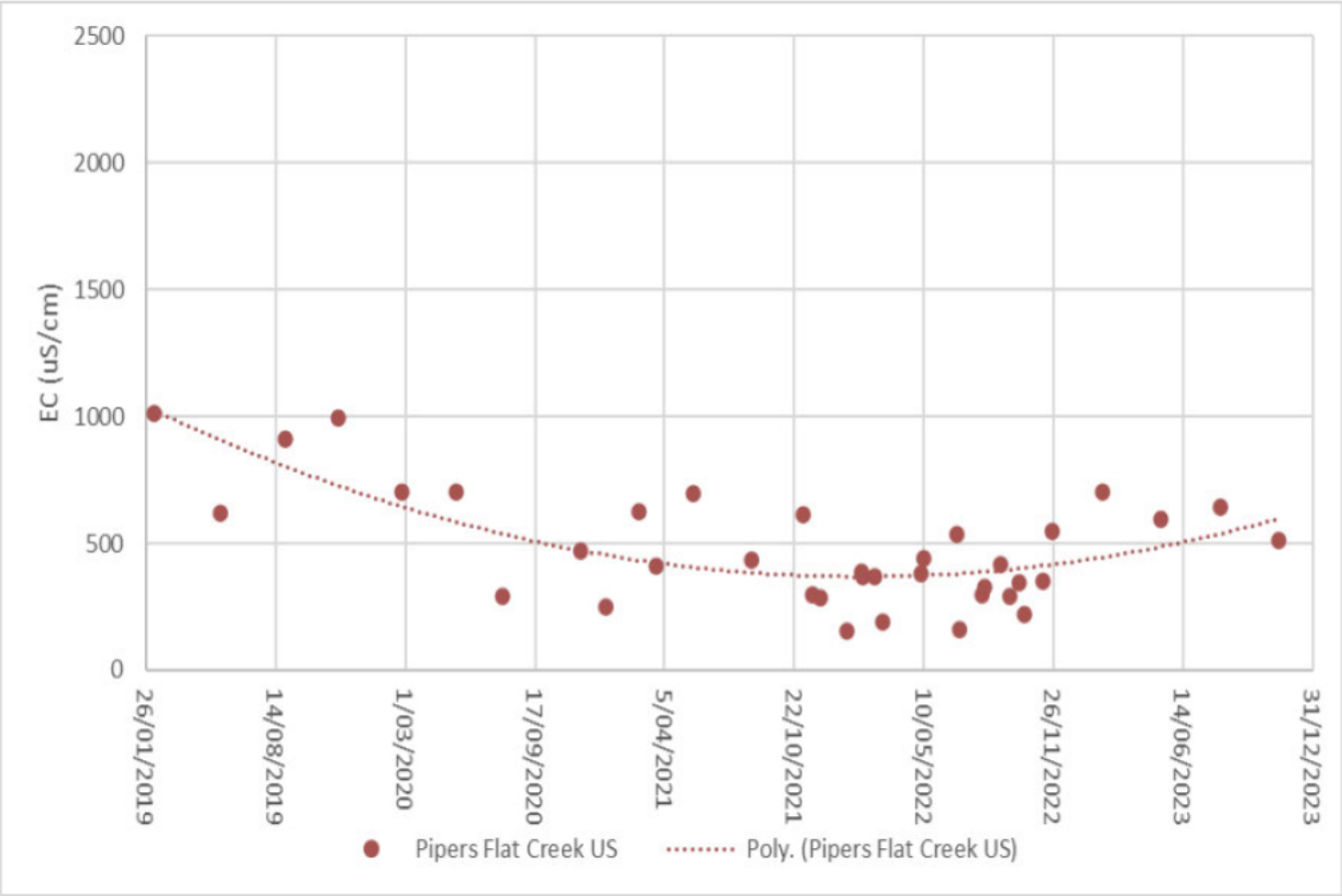
Graph 1 | Historical trend for conductivity – 2014 -2024 (Source: EnergyAustralia NSW, 2024[3])



Graph 2 | Box and Whisker Plot for conductivity – 2014-2024 (Source: EnergyAustralia NSW, 2024)

[3] *Water Access Licence and Approval Annual Compliance Report 2023-2024.* EnergyAustralia NSW.

Pipers Flat Creek Monitoring Site (PFup)



Graph 3 | Electrical Conductivity in Pipers Flat Creek – 2019-2023 (Source: Centennial 2024[4])

[4] *Springvale Water Treatment Project 2023 Annual Review*