Dear Sir/Madam,

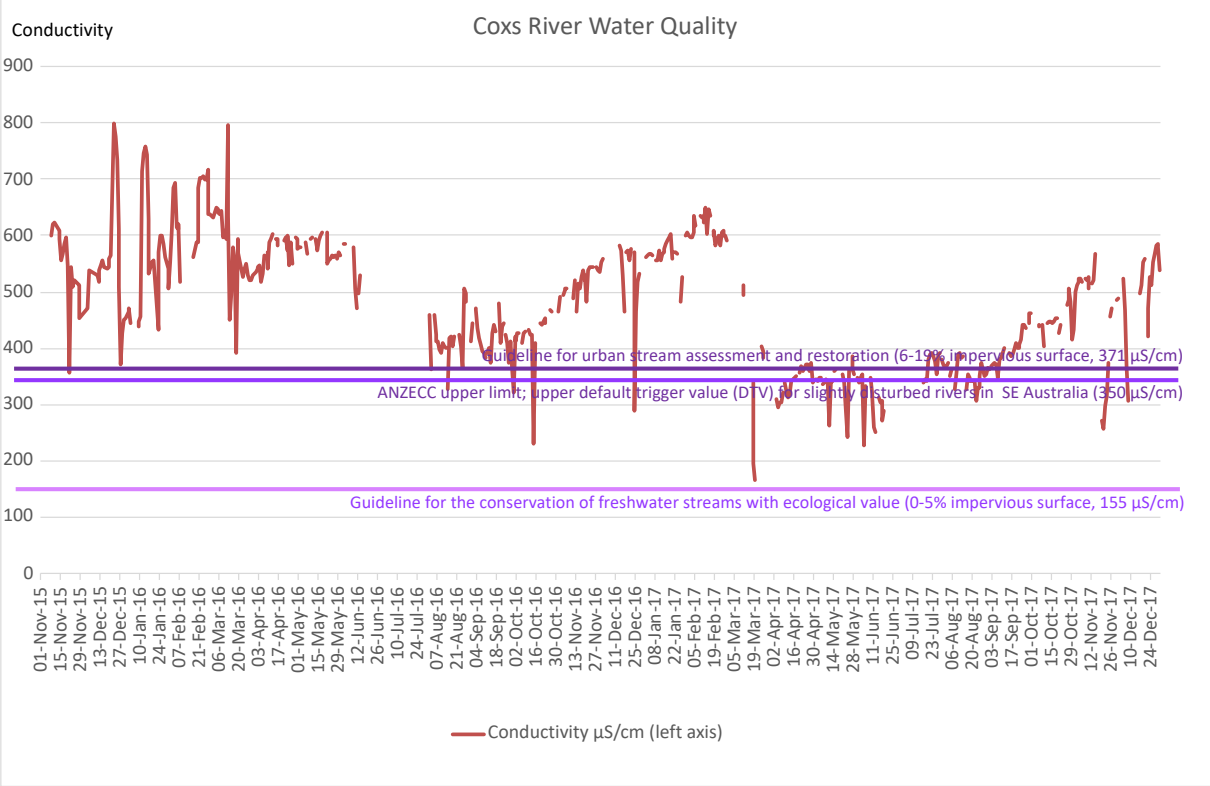
I am a resident of Kanimbla, NSW 2790. Our property border sthe Coxs River south of Lake Lyell and we use it for garden irrigation and recreational swimming. I'm also a keen bushwalker and visit the Gardens of Stone SCA regularly, incl. Newnes Plateau, Ben Bullen, Wolgan State Forests as well as Wollemi and Blue Mountains NP.

I have some concerns/objections to the proposal and ask for them to be considered in a revised version of the plan and before approval.

Potential contamination of Coxs river and Sydney's drinking water supplies

Whilst it is positive to hear that the level of salinity and pollutant contamination at LDP001 is likely to be decreased through the dilution of discharge, concentrations are still too high.

My own measurements of conductivity of Coxs River in the Kanimbla Valley clearly show that conductivity (hence salinity) is most above the ANZECC standard of 350µS/cm (see graph below):



Any additional discharge of higher concentrations is likely to increase salinity further. Also, the mine effluent will have elevated levels of heavy metals if salinity is treated to the proposed 350µS/cm standard. This level of treatment may not adequately protect aquatic ecosystems, especially macroinvertebrates, given the flow of mine water at the LDP001 entry point into Wangcol Creek. Wangcol Creek flows to the Coxs River and is part of Sydney's Drinking Water Catchment. The modifications will see more contaminated mine water going into the Wangcol Creek from the Western Coal Services site. This water is likely to be contaminated with toxic chemicals such as arsenic and selenium that have been recorded as present in the mine water of the Springvale-Angus Place mine water system.

The proposed discharges should not meet the "neutral or beneficial" test for water pollution because it adds to the overall pollution load in the creek. The transfer of 10ML/day of mine

water from Angus Place to the Western Coal Services site for discharge should not be allowed. Adding mine water to a highly polluted element of the Wangcol Creek catchment is also likely to flush out more heavy metals from that contaminated site. These contaminated discharges would then enter the Coxs River, a key part of Sydney's water catchment that flows through the Greater Blue Mountains World Heritage Area.

These modification proposals to allow large discharges of mine water also defeat the purpose of the Springvale Water Treatment Project (SSD-7592, approved in June 2017) that was built to eliminate mine water discharges into the Coxs River catchment from Springvale Mine and Angus Place Colliery.

Potential damage to important wetlands

In 2018, Angus Place Mine Modification 5 was approved allowing pumping at a rate of 10 ML/day from mine workings (areas 800 and 900). Following this approval, the groundwater table dropped between 21 and 30 metres (Centennial Coal, Coxs River Swamp Review, July 2018, pg 44). This drop in groundwater was observed to quickly dry out Kangaroo and Lambs Creeks and associated swamps, as well as the Coxs River and swamps (Lithgow Environment Group, pers. comm. 4 Oct, 2023).

Since 2018, far-field loss of surface waters in Newnes Plateau streams and swamps has been observed over a kilometre away following depressurisation of groundwater in a coal seam due to coal mining at Springvale. Such far-field impacts may explain the observations made by Lithgow Environment Centre in 2018 and why future surface water losses from dewatering areas 800 and 900 may be expected.

The proposed modification 8 which would allow pumping at 10ML/day from areas 800 and 900 will again lower the groundwater table.

Due to the proximity of the Lithgow Coal seam to the surface at Angus Place West project area, the proposed pumping may also cause regional drawdown or localised far-field drawdown of near-surface groundwater. The pumping may damage Kangaroo and Lambs Creeks and swamps, as well as the upper Coxs River and its swamps. Nationally endangered plants may also be harmed, including Xerochrysum palustre (Swamp everlasting), Pultenaea glabra, Kunzea cambagei, Veronica blakleyi, Grevillea acanthifolia, Gentianella cunninghamii, Prasophyllum australe and Latham's Snipe (a rare migratory bird species).

Thank you for taking note of these comments.

Yours sincerely,

Prof. Thomas Wiedmann

Kanimbla, NSW 2790