Blue Mountains Conservation Society Inc

ABN 38 686 119 087
PO Box 29 Wentworth Falls NSW 2782
Phone: 0490 419 779
E-Mail: bmcs@bluemountains.org.au **Web Site: www.bluemountains.org.au**

Nature Conservation Saves for Tomorrow

Mining and Industry Projects
NSW Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

5 February 2025

Dear Sir/Madam,

Objection to Springvale water treatment plant (SSD 7592) Mod11 - Water management during MPPS outages

The Blue Mountains Conservation Society (the Society) is a community-based volunteer organisation with over 850 members. Our mission is to help protect, conserve and advocate for the natural environment of the Greater Blue Mountains.

Summary

Centennial Coal, the main coal mine owner in the Lithgow area of the greater Blue Mountains, is seeking approval to transfer undefined "water" from Springvale Water Treatment Plant (SWTP) to Thompsons Creek Reservoir (TCR) during outages of Mt Piper Power Station (MPPS). Some mine waste water would apparently bypass the Springvale Water Treatment Plant (SWTP). There would be no limits on the amount of "water" transferred nor any end date for this proposed system. This proposal would seriously undermine the significant environmental protection achievement of the Springvale water treatment plant which operates a zero discharge system of mine waste treatment and reuse. This was approved in 2017. The plant's aim was to protect Sydney's drinking water catchment and the Greater Blue Mountains World Heritage Area GBMWHA). Further, very large volumes of water have more recently been discharged from TCR back to the Coxs River system.

The Society opposes MOD 11 for reasons set out below.

Proposed changes to SWTP's development consent

MOD 11 proposes deleting Condition 6A and replacing it with condition 6B (a)– (e).

Condition 6 regulates the final use of any treated water produced by Springvale Water Treatment Plant which is excess to MPPS' needs. Under the heading "LIMITS ON CONSENT – Pipelines" it states that

> "6. The Applicant must transfer all excess treated water via the Coxs River Water Supply Pipeline to the Thompson Creek Reservoir, except during emergency situations, subject to approval from the secretary.
> *Note: Any emergency situation may include any event where overtopping of Thompson Creek Reservoir is likely to occur."*

"treated water" is produced by SWTP through the reverse osmosis process which reduces salinity. TCR is a reservoir built to store water for use in MPPS and is part of the Coxs River Water Supply. MOD 11 does not seek to change condition 6.

> "6A. The Applicant may transfer up to a maximum of 5,760 megalitres of partially treated mine water to Thompsons Creek Reservoir, until 31 October 2023". [1]

This interim water management arrangement limited the time period, volume and treatment level of mine waste water. "partially treated mine water" is defined as "mine water which has been filtered to remove solids". This condition has expired so any discharges after 31/10/2023 would be unlawful. However, if condition 6A is not extended, transfers to TCR would not be restricted by volume, date and quality, except during the operation of proposed condition 6B. (MOD11 would remove condition 6A).

MOD 11 would create a new permanent water management system to transfer "water" to Thompsons Creek Reservoir via the Coxs River Water Supply Pipeline during an "MPPS outage period." Consequently, treated mine water from SWTP would continue to be transferred to TCR (condition 6). However, in an "MPPS outage period", undefined "water" (that is, partially or untreated mine water for instance) of unlimited volume (and pollution levels) could be transferred to TCR indefinitely (as set out in Condition 6B (a) – (e)).

> "6B. The Applicant may, during a MPPS Outage period, manage transfers of water to Thompsons Creek Reservoir in accordance with the following:
>
> (a) The Applicant must, in consultation with EnergyAustralia, install and maintain a real-time water quality monitoring system capable of assessing water quality in the Thompsons Creek Reservoir before any MPPS Outage events.
>
> (b) The Applicant must notify the DPHI, EPA and WaterNSW prior to the transfer of any water to TCR during MPPS Outage period.
>
> (c) The Applicant must ensure that water is managed so that water quality does not exceed 650 µS/cm EC at any time within Thompsons Creek Reservoir.

[1]Springvale Water Treatment Plant Modification Report for Modification 11 to SSD-7592, section 4.1.2

(d) During an MPPS Outage period, the Applicant must immediately notify the EPA and WaterNSW in the event of water quality monitoring system finds water quality exceeds 600 µS/cm EC in the Thompsons Creek Reservoir.

(e) Water may be transferred to Thompsons Creek Reservoir up to 14 days prior to and up to 7 days following a MPPS Outage period."

1. Mod 11 would replace Springvale Water Treatment Plant's "zero discharge" system in MPPS outage periods

SWTP was approved in June 2017 and operational by 2020. It was built to treat polluted mine water from Springvale and Angus Place Mines and then transfer it to MPPS for use in its cooling towers. Centennial is the main supplier of coal to MPPS. The aim was to protect Sydney's drinking water catchment by meeting the legal NorBE (neutral or beneficial) use limit. Excess treated water would be sent to TCR for storage and later reuse. Environmental groups including BMCS campaigned for a closed loop system to protect the Coxs River which flows through the GBMWHA and Sydney's drinking water catchment.

In June 2017 the independent Planning Assessment Commission (PAC) approved the SWTP and its process as a closed system with zero discharge. "The SWTP was one of three projects designed to respond to the Commission's findings by improving Springvale mine waste treatment arrangements and delivering improvements in water quality." [2] The PAC's Determination Report for Springvale Water Treatment Project in June 2017 stated that

> "The Commission finds that the outcome of the project, which is to reduce the mine water discharge from LDP 009 from an average of 30ML/day **to zero discharge**, in comparison to 0.43ML/day of residual waste from the water treatment facility, is a substantial environmental improvement" [3]

The SWTP *MOD1 Statement of Environmental Effects* stated, under the heading of Environmental Consequences, that "The project (Springvale Water Treatment Project) will continue to operate **as a zero discharge system** and result in a significant benefit to the drinking water catchment."[4] Treated water would be transferred to TCR and "subsequent reuse in power station operations".[5] "Any excess treated mine water will be temporarily stored in TCR for subsequent reuse during periods of high water demand in MPPS cooling water system."[6] This means that stored water would be later sent back to SWTP for use at MPPS. MPPS' water licence WAL 27428 requires that they use mine wastewater unless it is unavailable. SWTP MOD 1 was approved in January 2018 while the SWTP design was being finalised. It also removed the concept of any discharge to Wangcol Creek and thus SWTP became completely a zero discharge system.[7]

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[2] Planning Assessment Commission*, Summary FCT Sheet* for SWTP , Springvale mine extension project Mod 2 and Western Coal Services Mod 1 June 2017, p.1

[3] NSW Planning Assessment Commission Determination Report Springvale Water Treatment Project (SSD 7592) June 2017, p.8

[4] GHD Report for Centennial Coal, *SWTP Mod 1 Statement of Environmental Effect*s 2017 p.(i)

[5] GHD SWTP SEE 2017,p.1.

[6] GHD SWTP SEE 2017 p.4

[7] GHD report For Centennial Coal, *SWTP Amendment to Development Application* December 2016, p.4

If approved MOD11 would significantly change the operation of the SWTP. The closed system goal at the beginning of the SWTP would be abandoned under the guise of a minor change. This proposal would fundamentally change the purpose and movement of waste water. It is not substantially the same development and should not be assessed as a modification. The impacts of this proposal need to be fully assessed including a detailed justification of the appropriate level of contamination such as salinity and its environmental consequences for SDWC and GBMWHA through which Coxs River flows. As well, Centennial needs to address the problem disposing of excess mine water beyond the requirements of Mt Piper Power Station with no increased harm to the environment.

2. Condition 6B would allow partially or untreated mine water to be transferred to TCR

Untreated mine waste water in unlimited volumes could legally bypass the SWTP. The MOD11 Application provides examples of what "water" transfers in an outage "may occur".[8] They could be "filtered water", "treated water" and a blend of the two. Both examples could have high salinity levels. However, this is not definitive description and gives Centennial Coal the opportunity to transfer anything that meets the definition of "water".

MOD 11 also proposes that the treatment level of what is transferred would be no longer detailed in the development consent. It would just be described as "transfer of water". Whereas Condition 6A restricted what could be transferred to TCR to "Partially treated mine water", defined as "mine water filtered to remove solids" and limited the volume.

Removing a volume limit on the undefined "water" that could be transferred, would allow Centennial to transfer during proposed 6B outages many gigalitres of untreated waste water into TCR. For instance, Condition 6B could potentially allow all the mine waste from Angus Place mine to be transferred to TCR but at the expense of the environment. This would be retrograde step with significant environmental consequences. It would be better to retain an extraction volume limit and definition of what is being transferred.

3. MOD11 would make a short term water management strategy permanent

MOD11 would change a short term interim water management strategy into a permanent system for the life of the consent, albeit only operating during "MPPS Outage periods." The interim water management clause (6A) was first approved for 8 months but through three successive further modifications it has been pushed out to four years and the volume limit was more than doubled. A fourth request for three further years' extension to October 2026 (Mod 9) was subsequently withdrawn.

4. Increased pollution levels and no quality standards - condition 6B (c)

Any negative impacts from these transfers from MOD11 would only be controlled by monitoring salinity levels in TCR. This is not satisfactory as it is not transparent about what is being transferred and omits the levels of any other pollution such as heavy metals and dirt.

[8] MOD 11 Application, p.27

ERM's *Water Impact Assessment* report (for Centennial) on the proposed amendments ends with a cautious conclusion that "The assessment outcomes are generally consistent with previously approved modifications to SSD 7592".[9] This is hardly a clear and supportive conclusion on the impacts of water quality! There is no explanation for the limit of 650 microsiemens/cm in TCR.

The MOD11 application report states that the water transferred could be "filtered water (an EC range of up to 1200 m/cm) up to 24M/L a day or a 24ML a day blend of treated RO permeate water 350 to 500 and filtered water at varying ratios of salinity depending on the source. This Blended Water is assumed to be in EC range of 600 to 900 m/cm"[10] This is a very sketchy description and justification. An acceptable water management system in the upper Coxs River catchment would need to have significantly lower pollution levels.

Streams in naturally vegetated catchments in the western Blue Mountains area generally have less than 50 microsiemens/cm.[11] The 350 microsiemens/cm salinity threshold is better suited to rural catchments but this proposal is for a river system which flows through a World Heritage area. This demonstrates how inadequate Centennial's MOD11 is in addressing the serious issue of environmental impacts and its potential consequences. There is no justification of what would be an appropriate level of salinity or indeed other pollutants for this environment. This company previously committed to operating a zero discharge system. Centennial needs to be held to the previous pollution standards to provide environmental protection to SDWC and the world heritage area. Altogether this represents an extraordinary backward step in environmental protection of SDWC and the world heritage area.

5. One "MPPS outage period' could last a third of a year - condition 6B(e)

Condition 6 applies except when there is an "MPPS Outage Period". It is concerning that, in fact, outage periods could last a long time. The MOD11 Application says they could be up to 90 days and the transfer time can be extended up to 21 days before or after the outage (Condition 6B(e)). Altogether one outage period could last a third of a year. The unlimited volume and the fact that TCR has released gigalitres of water in the last two years (see above) shows the serious threat to water quality in SDWC and impacts on the world heritage area. This has not been considered.

6. Thompson Creek Reservoir discharges

TCR has been releasing significant volumes of environmental flows. EnergyAustralia owns MPPS and the related system of pipes and dams. EnergyAustralia's use of water from the Coxs River is regulated by Water Access Licence 27428 (WAL) and Water Supply Work and Water Use Approval 10CA117220 issued under Water Management Act 2000. The compliance report for 2023-2024FY for WAL 24278 contains actual daily volumes released for TCR which if added up show that TCR released around 4,000 ML in 2023 24 FY. This is many, many times larger than the WAL requirement of at least 0.3 or 0.8ML a day (about

[9] ERM Water Impact Assessment report attached to Modification application, at p.33
[10] MOD 11 Application p. 27.
[11] Dr Ian Wright, *Submission to the PAC on Springvale Mine extension* 2015.

230ML a year)[12]. "Environmental flows at TCR in this reporting period "assisted to maintain a safe operating level and provide enough capacity to hold excess water"[13]. Rather than being stored in TCR and then accessed later for MPPS as required, it would be discharged back into Coxs river system at a time when it enters the TCR. The SWTP brought benefits of lowering salinity and metals in water flowing into SDWC and WHA. This significant change could send largely untreated water into TCR up to 120 days (a third of a year) and then discharged on to Coxs River as required by dam levels.

Centennial Coal needs to resolve its problems with excess mine water or reduce its mining area. The Compliance report has no information on the quality of the water transfers and whether there is any monitoring of the discharges or the receiving waters. It is also not clear how these transfers are consistent with MPPS' requirement to use mine waste water as its first choice. This volume of transfers is inconsistent with the stated aim of SWTP operating a closed system.

These massive environmental releases and their impacts are not considered as part of the MOD11 assessment and in the management to meet NorBE test in Sydney's Drinking Water Catchment. Instead, transfers from TCRs appear to be in a separate silo of regulation (water licensing) from SWTP (development control managed by Planning Department). As a result there is no full picture of potential impacts. The assessment of the modification needs to be transparent about the whole transfer system.

The modification category allows important environmental issues to be brushed over and inadequately explained and assessed. MOD11 would significantly change the objectives and benefits of the $200M SWTP. This does not meet the definition of a modification of being substantially the same development. One solution would-be to hold an independent inquiry into the proposal and system. The proposal requires an environmental impact assessment (EIS). It could also be reviewed through an independent inquiry into what has transpired and how a zero discharge system be so drastically changed as MOD 11 proposes.

Recommendations

- Department of Planning should reject MOD11.
- Government should require Centennial to recommit to the zero discharge system which was established in 2017 for Springvale Water Treatment Plant.
- This change ignores the whole premise of SWTP and is too significant a change of direction to be a mere modification. It is not substantially the same development as a whole other system of managing mine waste water is introduced and its impacts need to be assessed through an EIS.
- Given the significant departure from the SWTP original operations there needs to be an investigation into what has occurred in relation to the huge discharges from TCR back to Coxs River and how this apparently undermines the role of SWTP. The

[12] EnergyAustralia NSW (2024). Water Access Licence and Approval Annual Compliance Report 2023-2024. EnergyAustralia NSW, p.
[13] EA Compliance Report, p.24

Environment Protection Authority's inquiry power in *Protection of the Environment Operations Act* s.310 could be used.

- MOD11 should be referred under the *Environment Protection and Biodiversity Conservation Act (Cth)* for an assessment of potential impacts on GBMWHA

Thank you for the opportunity to comment on this proposal.

Yours sincerely

Mrs Annette Cam
President
Blue Mountains Conservation Society