

OFFICIAL

EPA Ref: OL000072239

13 October 2022

Mr Phillip Fasham  
Manager Water Regulations  
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Dear Phillip

Re: Request for information under Regulation 21(1)(a), reference APP015649

Coliban Region Water Corporation's ("Coliban Water") application for an Operating Licence amendment for Operating Licence OL000072239 was received by the Environment Protection Authority ("the Authority") on 12 May 2022.

On 19 September 2022 the Authority received from Coliban Water the complete summary of feedback submitted by the community on the application. The Authority considers stakeholder engagement to be critical for the assessment of a permission application. After consideration of the feedback received from the community and Coliban Water's responses, and the advice from EPA's own experts it has been determined that further information is required to inform the assessment of your application.

The statutory clock remains paused until the Authority receives an acceptably complete response from you containing the required information listed below.

Required information:

**1. Dilution ratio**

- a) Clarify what Coliban Water mean by "*the discharge to the river must not exceed 66.7% of the flow*", specifically whether they are referring to flow upstream or downstream of the discharge. Is the intent to request that for a hypothetical 1 ML/day flow rate upstream, up to 2 ML/day of discharge be permitted (i.e. a 1:2 ratio)?
- b) A 1:2 ratio of river water to discharge with no upper limits on the concentration of nutrients and toxicants in the discharge effectively allows for periods of unrestricted discharge and this could result in harm to the Campaspe River. This presents an unacceptable level of risk to the environment, because any upset conditions in the plant will mean only a small buffering capacity in the river and higher likelihood of harm. In a risk assessment sense, the likelihood of an adverse event will be higher, because of the lack of dilution. EPA requests that Coliban Water provide an assessment (using their hydrological model) of discharge scenarios with higher dilution ratios such as with the ratio of river water to discharge being 3:1, 5:1 and 10:1. Please comment on the operational and cost implications of discharging under these scenarios and the adjustments /changes to plant and its operation that will be needed.

2. **Discharge limits**

- a) The use of rolling medians is an improvement on annual medians but the use of medians without an upper limit is not protective of the environment, very poor effluent quality could be discharged at times but still be compliant with the licence. EPA requests that Coliban Water examine their data and propose either upper limits or 90<sup>th</sup> percentiles for the discharge parameters or 95<sup>th</sup> percentiles for microbiological parameters. If a 90<sup>th</sup> or 95<sup>th</sup> percentile is to be used instead of a maximum, Coliban Water would need to demonstrate their ability to manage this risk (see Controls to manage risk below).
- b) The proposed medians are well above the current performance of the plant. EPA requests that Coliban Water revise their proposed medians to be much closer to the current performance.
- c) The upgrade is projected to reduce TN/TP into river, however this is not enforceable by the proposed limits. There is no upper ML/year cap or TN/TP load limit. EPA requests Coliban Water to suggest a cap or load limit.
- d) The commitment to only discharge BNR-treated water to the Campaspe River is contingent on the completion of the Kyneton Solutions Project, which includes the construction of the irrigation pipeline that is currently in the pre-delivery phase. BNR treated water discharge depends on completion of 'Kyneton Solutions Project'. But no timeline was provided when 'Kyneton Solutions Project' will be completed. The whole assessment is based on discharge of BNR treated water only which is not correct. What will happen until the 'Kyneton Solutions Project' is completed? Please provide a timeline for completion of this project.

3. **Key issues missed by the risk assessment**

- a) BOD is considered in isolation from dissolved oxygen and risks from low DO% are not well assessed. EPA requests that Coliban Water provide an assessment of the likely impacts of discharging BOD at the proposed limit in low flow conditions in summer at a number of likely discharge ratios.
- b) Toxicants other than ammonia are not considered by the risk assessment. There is minimal consideration of metals and other toxicants from AQUEST monitoring in the GHD assessment. Provide an assessment of metal and other potential toxicants and propose limits for toxicants including ammonia.
- c) The discharge is in a Special Drinking Water Supply Catchment Area, so the decision not to assess drinking water (GHD Table 25) as a value is not supported. Provide an assessment of implications to the beneficial use of drinking water.
- d) A key risk from a nutrient mixing zone of several kilometres downstream is the development of algal blooms or excess plant growth (macrophytes and Azolla), yet there is no algal or plant monitoring downstream. Is there evidence of past algal blooms or Azolla blooms, for example in Turpins Falls? This is only broadly considered as 'eutrophication' in GHD table 25. This should inform the consequence scores in GHD Table 30. GHD Table 31 and 32 does not consider algal blooms as a risk pathway for primary

and secondary contact recreation. The same is true for stock watering in Tables 35 and 36. Update the risk assessment to consider the specific risks from eutrophication related to algal blooms and Azolla growth.

4. **Controls to manage risk**

- a) The low dilution ratio proposed gives rise to high risk during periods of upset conditions. Given the high rainfall infiltration into the plant, the risk of washout events (loss of treatment plant microorganism) remains a foreseeable risk. This risk could be mitigated by considering a higher dilution ratio (potentially with conditional settings i.e. seasonal or minimum flow required), additional treatment, or additional real time plant, upstream and downstream monitoring to inform whether a discharge will cause harm. There are examples where the discharge rate is adjusted based on real time monitoring of key parameters (e.g., Lang Lang WRP and Colac WRP). The risk from the low dilution ratio can be mitigated by improved monitoring. EPA requests that Coliban Water consider real time monitoring systems and a plant management system that allows rapid identification of upset conditions and the river conditions, and that Coliban Water provide a proposed operational monitoring program that could be used to trigger increased frequency of compliance monitoring at different action levels.
- b) Provide an updated communication plan that will keep the community well informed on the status of the discharge including the occurrence and management of upset conditions, the on-going ecological health of the receiving waterway and of changes to the management and treatment of the wastewater and how this may impact water quality.

Please respond to this request for information via the EPA Portal at <https://www.epa.vic.gov.au/Portal>. If you have any queries regarding access to or using the Portal, please contact [contact@epa.vic.gov.au](mailto:contact@epa.vic.gov.au) or phone 1300 372 842 (1300 EPA VIC). If you need clarification or would like to discuss any of the above points, please contact myself at [david.robinson@epa.vic.gov.au](mailto:david.robinson@epa.vic.gov.au).

Regards,



David Robinson  
Permissioning Officer  
Permissioning Unit