



Your reference :  
Our reference : SF18/70068; DOC19/32333  
Contact : Helen Smith, 02 6883 5374

The General Manager  
Warrumbungle Shire Council  
PO Box 191  
COONABARABRAN NSW 2357

Attention: Cornelia Wiebels

15 January 2019

Dear Mr Bailey

**Warrumbungle Sewage Treatment Plants**  
**Proposed Upgrade Works**

I refer to a meeting held on 12 December 2018 between representatives from Warrumbungle Shire Council (Council), Hunter H<sub>2</sub>O, Department of Industry – Water (DOI Water) and the Environment Protection Authority (EPA) to discuss the proposed option assessment reports for the Dunedoo, Coolah and Coonabrabarn sewage treatment plants (STP) and conditions of the environment protection licence (EPL) for each for plant.

For simplicity each STP is discussed separately below:

**Coolah STP**

As you may be aware, the EPA conducted a routine inspection of the Coolah STP on 27 August 2018. The inspection found wastewater is being irrigated onto the travelling stock route adjacent to the STP. The EPA considers this area to be too small for the sustainable reuse of the volume being applied and evidence was observed which indicates wastewater from the irrigation area is draining to the Coolaburragundy River. While EPL 4445 for the Coolah STP permits wastewater irrigation onto the property known as "Lovegroves" the EPA understands that this area is not currently being utilized. It should be noted that EPL 4445 does not permit discharges to the Coolaburragundy River and wastewater draining from the travelling stock route may be in breach of section 120 of the *Protection of the Environment Operations Act 1997* (the POEO Act).

The EPA understands that Council's preferred option is to replace the existing plant with an Intermediately Decanted Extended Aeration Tank (IDEAT) activated sludge process at the current location. The EPA considers the current location of the Coolah STP to be problematic due to its proximity to neighbours, potentially being located in a flood zone and limited access to adequately sized irrigation areas.

The EPA strongly recommends Council given further consideration to a plant which:

1. is situated in an alternate location, for example adjacent to Coolah landfill;
2. is of a lower technology, in comparison to the IDEAT;
3. has the potential for 100% agricultural re-use; and
4. has wet weather storage capacity.

Economically this option is more likely to be achieved within what the EPA understands is Council's current budget. The EPA appreciates that further options assessment will extend the timeframe works for works to undertaken.

Given the issue of unauthorized discharge to the Coolaburragundy River from the Coolah STP and the unsustainable irrigation of the stock route, the EPA requires Council investigate options to extend the wastewater irrigation area, including reinstating irrigation on the property "Lovegroves" while the upgrade assessment is being undertaken. The EPA requests Council respond to this request by **8 February 2019**.

#### Dunedoo STP

The EPA understands Council has installed a flow meter on the outlet of the pasveer channel to improve the accuracy of flow and sampling is being conducted at various stages of the treatment process.

The following was agreed to at the meeting with respect to the Dunedoo STP:

1. Conduct sampling of the various stages of the pasveer to ensure each part of the plant is functioning adequately.
2. The preferred option for upgrades is for packaged inlet works, alum dosing and UV treatment with a bypass of the maturation pond.
3. Council to respond to the draft licence variation regarding proposed changes to the discharge volumes once sufficient flow data has been obtained to confirm flow rates. This data will be utilised to finalise discharge volume related conditions of EPL 1747.

#### *Draft Licence Variation*

The EPA notes from the email response to draft Notice 1571107 of 18 October 2018 that Council seeks clarification with regard to a dedicated complaints line for odour complaints. Condition M5 of EPL 1747 requires Council to have a complaints line which is a standard condition on all EPLs and that complaints line is considered adequate for any odour complaints which may be received.

#### Coonabarabran STP

In regard to the Coonabarabran STP the discussions related to:

1. the main non-compliance with the discharge quality limits on EPL 1744 which is for total nitrogen (TN);
2. management of septic waste (septage); and
3. wet weather bypass storage.

The EPA agreed to review the current TN limit to ensure that it is "fit for purpose".

During the EPA's inspection of the Coonabarabran STP on 27<sup>th</sup> August 2018 it was observed that the emergency storage pond (used for bypasses during wet weather) is not lined and septage waste may be being disposed of in the emergency storage pond. It was agreed during the meeting that septage waste should be disposed of in the sludge lagoon and wet weather bypasses should be directed to the maturation pond.

#### Environment Protection Licence Conditions

Prior to the meeting, Council provided the EPA with a briefing paper titled "*Technical Review for Coolah, Coonabarabran, Dunedoo sewage treatment plants*" prepared by Hunter H<sub>2</sub>O dated 26 November 2018 (the paper). The paper included various recommended changes to the current EPL conditions for the Coolah, Dunedoo and Coonabarabran STPs. As a general comment, proposing alterations to the current EPL conditions at this time is pre-emptive, given a final decision has not been reached regarding the works to be undertaken at each STP.

However, the EPA advises it will not support the proposal to change 100 percentile discharge quality limits to 90th percentile limits nor a discharge volume limit of 8 x ADWF.

The EPA considers that the current discharge quality limits for each STP are generally "fit for purpose" aside from the TN limit at the Coonabarabran STP as discussed above. The EPA would be pleased to discuss an appropriate faecal coliform limit for each plant though it should be noted that Council will need to demonstrate that it can comply with the proposed limits.

In relation to proposed discharges to the Coolaburragundy River from the Coolah STP the EPA recommends Council investigate re-use options, as at a matter of urgency, rather than discharging to the environment, given the level of treatment and the discharge quality which can be achieved at the current time.

Where Council commits to the installation of a new STP at Coolah and wishes to discharge to the environment, the EPA recommends that for design purposes, Council note the water quality targets in the following table. In terms of discharge quality limits for the EPL, Council will be required to satisfy the 100 percentile limits.

Pollutant	90th percentile	100 percentile
BOD	10 mg/L	15 mg/L
Faecal coliforms	200 cfu/100ml	600 cfu/100ml
Nitrogen (ammonia)	2 mg/L	5 mg/L
Nitrogen (total)	10 mg/L	15 mg/L
Oil and Grease	5 mg/L	10 mg/L
pH	-	6.5-8.5
Phosphorous (total)	0.5 mg/L	1 mg/L
TSS	15 mg/L	30 mg/L

Where Council commits to the installation of new STP at Coolah which does not discharge to the environment, the EPA would be pleased to provide alternate discharge quality limits.

If you have any questions, or wish to discuss this matter further please contact Helen Smith at the EPA's Central West Dubbo office by telephoning 02 6883 5374 or by email at [central.west@epa.nsw.gov.au](mailto:central.west@epa.nsw.gov.au)

Yours sincerely



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