

**28<sup>th</sup> August 2019.**

**To: NRAR** Natural Resources Access Regulator ("NRAR").

Dear Sir/Madam

**Objection to the proposal to modify environmental flow requirements for Summer Hill Creek under Water Supply Works Approval for Suma Park Dam, No.80CA722752, and the reduction of the river flow trigger for water extraction from the Macquarie River under Project Approval MP10\_0235 (Macquarie River to Orange Pipeline)**

The Central West Environment Council (CWEC) is an umbrella group representing district environment groups from Dubbo, Mudgee, Rylstone, Bathurst, Lithgow and Orange.

**SUMMER HILL CREEK**

CWEC is objecting to the modification of Summer Hill Creek environmental flows proposal on the following grounds:

**Loss of riffle habitat**

There is a proposal to remove reference to the maintenance of riffle habitat. (Condition 1F). Proposed change to Condition 1F. CWEC considers that this is a critical condition that should be carefully monitored. Riffles are an essential part of the creek's ecosystem, particularly for provision of habitat for macroinvertebrates, a key component in the diet of platypus. Loss of riffle habitat also leads to a reduction in stream connectivity.

**Rolling averages**

Condition 3B ensures that 1.75 ML/day minimum environmental flow is based on an average over three days. If this is extended to five days, it could include a short freshing at the beginning of that period, quickly dispersed, but bringing up the average, meaning the tail end of the five days could be left with low to non-existent flows, leading to a reduction in habitat pool levels, loss of connectivity and other impacts. This is opposed. It should remain at three days.

**Dam storage threshold**

There is already an emergency provision of stopping the environment flow (based on flow at Third Crossing) when the combined storage dams are at 25 % (restored at 30%).

It is, in our opinion, unacceptable to increase the threshold to 50% (requiring a visible or detectable flow) as this will happen quite often, especially during the warmer months. The effects this would have on the creek have not been quantified, but are likely to be severe,

with all flow ceasing at Ophir and beyond. The requirement for 1.75 mL/day was a requirement agreed to by Orange City Council based on a report commissioned by council on the environmental flows needs of the creek (Entura 2013) and agreed to by a NCAT (NSW Civil and Administrative Tribunal) hearing (December 2015). Considering that it is clear from this report that this minimum flow was already very much below the optimum, it is highly undesirable to modify it to an even lower standard for this already highly stressed creek environment.

In summary, CWEC objects strongly to this proposal and is very supportive of the efforts by local environment groups, including Summer Hill Creekcure Inc., to prevent further degradation of the ecological integrity of the creek and downstream areas.

## MACQUARIE RIVER

There was a long, hard fight to set up the trigger thresholds for the Macquarie River and it does not seem appropriate that these should be altered without further considerable environmental investigation considering at least what has transpired since the operation of the pipeline.

In respect of the Macquarie River, there have been, to my knowledge, no studies indicating the expected environmental impacts with a change in the trigger for cease-to-pump.

Reduction in flows in the river can lead to many environmental effects including the following

- Loss of biodiversity and wetlands due to low flows, reduced water quality (Dougherty & Hall, 1995)
- Changes to the water table and floodplains due to a diminution of groundwater recharge (Dougherty & Hall, 1995)
- Increase in sedimentation and eutrophication due to loss of riparian vegetation and a resulting increase in undesirable species (Smith 1998);
- A concentration of pollution and algae due to the lack of flushing (Dougherty & Hall, 1995; DPI, 2019)

In addition, a reduction of flow in the Macquarie will lead to loss of water to downstream users and wetlands, such as the Macquarie Marshes. We should be doing everything we can to avoid exacerbating the degradation of the remaining wetlands in the Murray-Darling Basin.

## RECOMMENDATION

In summary, CWEC objects to both these proposed modifications on the grounds that:

- in the case of Summer Hill Creek, there has already been over-extraction of a highly stressed river that could lead to significant reduction in ecological integrity of the ecosystem, including possible local extinctions; and
- in respect of the Macquarie River, there have been no studies indicating that a change in the trigger for cease-to-pump would not have a significant environmental impact



Cilla Kinross

Chair, Central West Environment Council

## References

DPI, Department of Primary Industries, 2019, Water flow, Accessed 27/8/2019.  
Available at: <https://www.dpi.nsw.gov.au/fishing/habitat/threats/water-flow>

Dougherty T.C. & Hall, A.W. 1995, Environmental impact assessment of irrigation and drainage projects, FAO Irrigation and Drainage Paper No. 53. Food and Agriculture Organisation of the United Nations. Accessed 5/2/2010. Available online at [http://books.google.com/books?id=Sx5tXL8IQ-8C&pg=PA33&lpg=PA33&dq=low+flows+environmental+impacts&source=bl&ots=dAw65Unj6D&sig=38L9UqU7XdJx32qjIx9l85Q\\_YQQ&hl=en&ei=UIZrS4yTKJiekQWMmfSGBA&sa=X&oi=book\\_result&ct=result&resnum=3&ved=0CBMQ6AEwAg#v=onepage&q=low%20flows%20environmental%20impacts&f=false](http://books.google.com/books?id=Sx5tXL8IQ-8C&pg=PA33&lpg=PA33&dq=low+flows+environmental+impacts&source=bl&ots=dAw65Unj6D&sig=38L9UqU7XdJx32qjIx9l85Q_YQQ&hl=en&ei=UIZrS4yTKJiekQWMmfSGBA&sa=X&oi=book_result&ct=result&resnum=3&ved=0CBMQ6AEwAg#v=onepage&q=low%20flows%20environmental%20impacts&f=false).

Entura, 2013, *Concept, Detailed Design and Documentation for Upgrading Suma Park Dam – P503083, Summer Hill Creek environmental flows determination.*

Smith, D.I. (1998). *Water in Australia: Resources and management.* Oxford University

