Council Reference: Water Management

Your Reference:



5 July 2020

Natural Resources Commission GPO Box 5341 SYDNEY NSW 2001

By Email: nrc@nrc.nsw.gov.au

Dear Sir/Madam

2019 – 2020 COASTAL WATER SHARING PLAN REVIEWS TWEED SHIRE COUNCIL SUBMISSION Tweed River Area Unregulated and Alluvial Water Sources 2010.

In Response to The Commission's invitation for submissions from the public to inform its reviews of the water sharing plans for the Tweed River Area Unregulated and Alluvial Water Sources 2010, please find Council's adopted position in respect to issues related to the water sharing plan and the need for it to be reviewed.

The Commission's requirements being:

The reviews will focus on the extent to which the water sharing provisions in the plans have materially contributed to the achievement of, or the failure to achieve, environmental, social and economic outcomes. They will also identify whether changes to these provisions are warranted.

Evaluation questions include:

- To what extent do you feel the plan has contributed to social outcomes?
- To what extent do you feel the plan has contributed to environmental outcomes?
- To what extent do you feel the plan has contributed to economic outcomes?
- To what extent do you feel the plan has contributed to meeting its objectives?
- What changes do you feel are needed to the water sharing plan to improve outcomes?
- This is your opportunity to comment on the plans which govern water sharing arrangements in these regions.
- The Commission is specifically interested in your comments regarding the associated environmental, social and economic outcomes and any opportunities for improvement you have identified.

Council resolved the following at its meeting of the 2 July 2020.

The administrative resolutions were:

- 1. Submits by 5 July 2020 the submission amended with the recommendations below replacing those in the draft submission, provided to this Council meeting of 2 July 2020, to the NSW Natural Resources Commission to consider as part of its review of the Water Sharing Plan for the Tweed River Area Unregulated and Alluvial Water Sources.
- 2. Finalises the draft submission reflecting Council's position and submit the submission by 5 July 2020.



The specific resolutions related to Water Sharing Plan content were:

The majority of Tweed Shire drinking water supply is drawn from a run of river supply of the Tweed River supplemented in periods of low flow by releases from Clarrie Hall Dam. Water is drawn off from the Bray Park Weir Pool and treated at the Bray Park Water Treatment Plant before being pumped into the water reticulation network and delivered to homes and businesses, the urban water supply.

The Uki and Tyalgum water supplies are also run of river supplies drawn from the Tweed River and a weir on the Upper Oxley River, respectively. The Tweed River and its tributaries are also used by landowners and businesses to support economic prosperity in the Tweed.

3. Cease to pump rules should be implemented for commercial water bottling extraction during low flow conditions due to connectivity between the alluvial aguifers and the fractured rock aguifers.

Clause 14 of the existing WSP has provisions to manage the sharing of water based on long-term averages. This method of management does not recognise the change in long term averages due to climate change. Work undertaken on behalf of Council has shown there will be a greater propensity for low flow periods and as such management of water based on long term averages may not be appropriate.

Further with lower flows due to climate change plus sea level rise, the availability of low salinity water in the lower Tweed may decrease.

4. Recommends that the method used for the management of the water resource in the formation of the WSP recognise and be reflective of the greater propensity for low and extreme flows due to climate change instead of long-term averages.

Clause 24 of the existing WSP limits the annual extraction of water from the Upper Oxley to 46ML/a for the Tyalgum village water supply.

Average demand for water in the village of Tyalgum is forecast to rise to 46.3ML/a with peak demand rising to 54ML/a by 2030 as determined by Hydrosphere in Tweed District, Uki and Tyalgum Water Supplies: Demand Forecasts 2014. The allocation of water to the local water utility under Clause 24 of the WSP will insufficient to supply the village of Tyalgum.

5. Recommends that the local water utility be provided access to at least 60ML/a under any revised or new Water Sharing Plan, dependant on studies that demonstrate an appropriate volume of water is available to maintain the ecosystem in a healthy, functioning state.

Clause 29(1). Environmental Flows in Low Flow Periods

Council is obliged by its Water Access Licence (WAL 33036) to maintain an environmental flow in Doon Doon Creek. The flow requirements are tied to the Eungella Gauge and are detailed in section 29 (1) of the Water Sharing Plan (Plan) as set out below.

29 Operational rules for local water utility storages

- (1) A daily release of water shall be made from Clarrie Hall Dam in the Doon Doon Creek Water Source (inclusive of any release for local water utility purposes) into Doon Doon Creek which is equal to or greater than:
- (a) 1 ML/day when flow at the flow reference point is at or less than 3 ML/day,
- (b) 2 ML/day when flow at the flow reference point is greater than 3 ML/day and less than 13 ML/day, and
- (c) 4 ML/day when flow at the flow reference point is at or greater than 13 ML/day.



The Clarrie Hall Dam catchment is 60km2 situated on Doon Doon Creek, which represents 10.6% of the 565km2 catchment above Bray Park Weir.

6. Environmental flows from Clarrie Hall Dam should be reviewed to ensure best practice management of town water extraction during low flow conditions and sufficient water is available to ensure important fish refuges are maintained and are reflective of this shire's internationally significant environment.

Clause 29(3). Environmental Flows in Low Flow Periods

Council is obliged by its Water Access Licence (WAL 33036) to maintain an environmental flow through the Fish Ladder at Bray Park Weir (BPW). The flow requirements are arbitrarily tied to the level of Clarrie Hall dam and are detailed in section 29 (3) of the Water Sharing Plan (Plan) as set out below.

- 29 Operational rules for local water utility storages
- (3) A daily release of water shall be made from Bray Park Weir in the Mid Tweed River Water Source through the fish ladder(s) on Bray Park Weir which is equal to or greater than:
- (a) 8 ML/day when the volume of water in Clarrie Hall Dam water storage is at or greater than 75% of full capacity,
- (b) 5 ML/day when the volume of water in Clarrie Hall Dam water storage is less than 75% and greater than 50% of full capacity, and
- (c) 3 ML/day when the volume of water in Clarrie Hall Dam water storage is at or less than 50% of full capacity.

The Clarrie Hall dam catchment is 60km2 situated on Doon Doon Creek, which represents 10.6% of the 565km2 catchment above Bray Park Weir.

In the case of prolonged drought there is no natural river flow at all reaching Bray Park Weir. Bray Park weir also acts as a saltwater barrage, to provide a fresh water weir pool to extract water for the Tweed District Water Supply. The fresh water released through the fish ladder enters directly into an estuarine environment. There is no other licenced extraction downstream.

7. Environmental flows at Bray Park Weir should be reviewed to ensure best practice management of town water extraction during low flow conditions and sufficient water is available to ensure important fish passage is maintained and reflective of this shire's internationally significant environment.

Clause 43. Access rules for the taking of surface water

Clause 43 defines the rules around accessing and taking of surface water.

This clause of the WSP is very complex and almost impossible to understand and requires significant simplification to be implementable. It should be noted that during the last drought event in 2019 - 2020 no cease to pump orders were issued despite the severity of the drought and no flows in the river. Appropriate and timely implementation of cease to pump rules are required during periods of low river flows.

8. Supports the implementation of the recommendations of the NSW Natural Resources Commission's Audit report October 2019 on the Tweed River Area Unregulated and Alluvial Water Sources 2010.

9. Prioritises options for alternative water reuse schemes and best practise regenerative landscape management to provide for population growth and more reliable and diverse water security that ensures protection of Tweeds internationally significant environment and waterways.



Resolution 10. Amended preamble text for Resolution 11:

Environmental studies, community consultation and economic analysis has consistently shown Clarrie Hall Dam has less environmental impact than Byrrill Creek Dam, is more readily accepted by the community and provides the best economic outcomes for Tweed Shire. Please see link below to table displaying the outcomes of Tweed Shire Water Supply Augmentation Options Report which identify the issues with Byrrill Creek Dam and its likely negative impacts on development in the Tweed.

Link to TSC web site page:

https://www.tweed.nsw.gov.au/Documents/Water/Water%20Supply%20Systems/TSC07522 Comparison of Water Supply Au gmentation Options.pdf

11. Supports the retention of Clause 48(1) which currently prohibits the building of a dam on Byrrill Creek.

Yours faithfully

Troy Green
Jul 5 2020 2:21 PM

cosign

Troy Green PSM GENERAL MANAGER