enquiries refer
Suzanne Acret
[redacted]

9 July 2020

Mr Bryce Wilde
Executive Director
Natural Resources Commission
nrc@nrc.nsw.gov.au

Dear Mr Wilde

Re: Ballina Shire Council submission – Richmond River Area Water Sharing Plan

Thank you for the opportunity to review and provide comment on the Richmond River Area Unregulated, Regulated and Alluvial Water Sources Water Sharing Plan (RR WSP).

The recent drought provided an excellent opportunity to consider the performance of the Plan within Ballina Shire during its most critical stage, that of the very low flows scenario leading to a Cease To Pump situation. The most recent drought impacted the communities of the Richmond River, and along the coast this was the worst drought that many long term residents can recall. It affected the coastal fringe much more than the 2002/2003 drought because the usual coastal showers which provide a respite for water dependent ecosystems such as Lowland Subtropical Rainforest and Lowland Rainforest on Floodplain amongst others did not occur. The lack of these coastal showers exposed some of the assumptions made within the Plan as requiring review.

It is noted that the Natural Resources Commission have had an independent audit completed of the RR WSP. The following comments are therefore made in addition to these and are intended to provide local context to some of the issues identified within the audit process. Some additional issues are also raised for issues occurring within Ballina Shire.

The following points are made with respect to the review of the Richmond River Area Water Sharing Plan.

1. There is significant land use change within the Richmond catchment, particularly along the floodplain, with floodplain macadamia plantations replacing sugar cane. As well as changes needed to the description of this area within the RR WSP, this may also affect the 'watering in' exemption previously provided to cane farmers. Water sharing rules applying with respect to land use changes should be communicated to new or existing farmers who have changed their land use.

2. Land ownership is also changing which can mean new practices of existing cropping or horticulture. New irrigation of an established macadamia plantation on the Alstonville Plateau was noted by neighbouring landholders which began close to the Cease To Pump mechanism, almost at the peak of the drought. It is not known how widespread this practice was but the creek on which it occurred (Youngmans Creek) feeds a groundwater dependent ecosystem (the Tuckean Nature Reserve) and also has other significant licensed water users occurring along it. Neighbours indicated that there had

been a recent change to land ownership of this property, and that the macadamias had not previously been irrigated.

3. Some irrigators were still pumping after the Cease to Pump mechanism (no visible flow) had been reached. It is suggested that there needs to be an active mechanism to advise that pumping should have ceased to remove uncertainty and ensure the environmental flow is sustained during these times. SMS or a similar mechanism is utilised which is cheap and pro-active and therefore provides certainty and perceived equity amongst water users in terms of setting the rules.

4. The results of the 2015 Ecohealth Report should now be included and considered within the Richmond River WSP, as it provides new evidence about previously unmeasured environmental stress due to the methodology which removed some of the subjectivity of previous assessments of the catchment and estuary.

5. Note that Richmond River County Council no longer undertakes weekly salinity monitoring (and it has now merged with other organisations to form Rous County Council). It is likely that Rous County Council will provide its own comment with respect to future planning for water quality monitoring.

6. Emigrant Creek Dam is mis-spelt throughout the RR WSP.

7. Table 6 reviews the connectivity between aquifer types and surface water. The Youngmans Creek example illustrates how this can be detrimental to a water source where flows pumped during the day flow through a highly transmissive soil profile to provide a very small 'visible flow' early in the morning. This, presumably, was taken to mean that the 'visible flow' condition had been met and by the water user who therefore considered pumping was allowed in the absence of other information.

8. The Interagency Regional Panel noted within the Background document requires updating as to staff once this review has been completed.

9. It is also noted that the Interagency Regional Panel did not appear to enhance the environmental protection of any water source within Ballina Shire, but rather allow more access to flows in each documented decision.

10. Table 7 should be updated to include recent requirements for development of Coastal Management Programs for coastal catchments.

11. The RR WSP references targets within the Northern Rivers Catchment Action Plan. It is not known whether the RR WSP did meet these targets, as noted within the Audit report. Further the NR CAP utilised some information as to river and estuary condition in relation to the Richmond which has since been superseded by the Ecohealth 2015 report for the Richmond River. The current status of the NR CAP is also not known, and there may be a newer reference point for the RR WSP to consider. Consideration of how the RR WSP can be evaluated into the future needs consideration.

12. It is understood that Threatened Species are used as a threshold for minimum performance of the RR WSP because these species exploit specific ecological niches. However, Council considers that it is possible that this consideration may not be suitable to ensure the survival of a greater suite of flora and fauna species.

    For example, during the recent drought, pools which are usually dependent on groundwater or nearby surface flows were very badly affected which also affected breeding platypus in at least one of these locations. These are not a classified threatened species but they do have a specific set of ecological requirements. The suite of species under consideration should be expanded to consider more than only species meeting the definition under the Threatened Species Act which often represent a specific ecological niche.

    This is the type of situation where Point 9 above becomes important. If only Threatened Species are considered, then only that specific ecological niche is considered in a decision. Rural land capability, community and recreational values, tourism and the inherent ecological values of native species should also form a part of the suite of considerations on which access to a water source should be provided.

13. Consideration of floodplain drainage and its impact on the hydrological models used to understand the impact of water licensing also needs consideration. Floodplain drainage facilitates quicker movement of surface water from floodplain locations than would previously have been the case. This does impact the hydrological behaviour of upstream locations, and should be recognised and built into decision making around upstream water licensing. Attempting to address the needs of such ecosystems (Points 13 and 14) without considering floodplain drainage and its impact, as well as landuse management is likely to assume more available water than is the case.

    An example is the Tuckean Area Water Source, which whilst being noted as a groundwater dependent ecosystem, is fed by upstream surface water catchment locations geographically located on the Alstonville Plateau. Again, floodplain drainage is particularly pertinent to the ongoing survival of this area and water licensing for extraction both adjacent the wetland and in upstream surface water catchments should consider this as integral to the availability of calculated recharge amounts.

14. A method to ‘close out’ for complainant issues which have been raised should also be considered. Council staff have, on behalf of community members, raised three separate issues with NRAR on two water courses as well as making representation to WaterNSW regarding a lack of publication of the Cease to Pump in force at the time. However, there has not been a communication back to Council with respect to any of these issues and how they were resolved. Further information was requested by NRAR staff in one instance. The WaterNSW enquiry was returned to Council staff stating it was an NRAR matter and needed to be referred to them. The enquiry was, in fact, WaterNSW related and had not been read correctly by the staff member and action was again requested by WaterNSW.

    These comments are a reflection of one of the issues raised in the Audit, which is that responsibilities are spread across a number of government departments and this can be difficult to navigate for consumers, irrigators and other stakeholders such as Council.

Council receives many questions from community members who need assistance to find information on matters administered by the NSW Government.

15. Information with respect to water allocations within water sources, water licenses within catchments and associated data is hard to find and difficult to interrogate to gain a full picture of what should be happening within a catchment. It is assumed that government departments have access to a consolidated picture of data and information, and if so, this information should also be publicly available and easily accessible.

    However, recent examples of licenses issued indicate this may not be the case. A landholder at Dungarubba has recently been granted a licence to pump groundwater within the now drained former Tuckean Swamp. The property is located on Class 3 Acid Sulfate Soils whereby works likely to result in disturbance of soil or drawdown of groundwater from 1 metre below the surface requires a development application. The purpose of this requirement is to reduce the acidification of the soil profile and reduce export of water that is low in pH. Over time, oxidation of soils in this area will acidify recharging groundwater as well as resulting in acidic surface water discharge after rainfall events. Water licensing must consider these serious environmental considerations in their approvals.

    This situation could have been avoided utilising the resources collectively mapped and noted by NSW government agencies, as well as reference to the Lismore City Local Environmental Plan which is also publicly accessible. A duty of care needs to be exercised not only to the person applying for the license but also the communities downstream and future property owners. This particular approval if activated, will result in significant degradation of the land on which the bore is situated and which will be irrigated but also surrounding land and downstream habitat values of the Tuckean Swamp and the Tuckean Nature Reserve.

Many of the issues which the Richmond River as a whole must manage are integrated with land use, diffuse water pollution as a result of surface runoff from both urban and rural locations, bed and bank management and floodplain drainage. For Ballina Shire, the main contribution of the water sharing plan is to preserve low and very low flows in freshwater creeks for freshwater inflows to the estuary, and the variability of flow classes for ecological purposes to support ecosystems in all locations.

The audit documentation provides appear to confirm that data collection, monitoring and evaluation foreshadowed within the WSP have not occurred within the Richmond River to date. This is a priority, if only to ensure that water sharing can be eliminated as an issue requiring attention with respect to river health. Further, it is suggested that flows above the 80th percentile be given particular attention as these flows are important in supporting the many groundwater dependent ecosystems on the North Coast during periods of lower than average rainfall.

As an example, in Youngmans Creek catchment, which is a creek which Council staff have knowledge of, it appears that a further allocations were made after the creek had already been identified as ‘stressed’ in the late 1990’s. It is difficult to understand how this can have occurred when trading rules apparently did not allow trading into the catchment. Where flows occur above the 80th percentile, there may be no discernible impact to the creek.

However, below that measure and particularly below the 95th percentile, the environmental impacts become increasingly significant. Where water users are not adhering to the Cease To Pump, the situation became critical during late 2019 and early 2020.

A summary of the situation was provided to Councillors in mid-2019 and is included as an attachment to this letter.

Thank you once again for your request for feedback and I trust the following is useful information.

Yours faithfully

Kerri Watts
Manager Public and Environmental Health
Planning and Environmental Health Division

Attachments – Internal memorandum prepared regarding water use in Youngmans Creek in reply to enquiries made at C Ward Committee

Email to DPIE – Water Staff Member regarding updated information found for Youngmans Creek

BALLINA SHIRE COUNCIL – MEMORANDUM

MEMO TO:	Kerri Watts
COPY:	Officer's name
CM REF:	Trim Reference
MEMO FROM:	Suzanne Acret
DATE:	31/5/19
SUBJECT:	Enquiry – Low Flows – Youngmans Creek

Kerri,

In response to the task I received regarding the condition during the dry period earlier this year of Youngmans Creek, I have done a cursory review of licences in the area. It is probably not complete but it is attached to this document for your information as a summary.

Essentially, just over 400ML per year has been allocated for extraction from the surface water flows within Youngmans Creek. This is a substantial allocation, I would suggest, for a small creek.

Just over 200ML per year are also allocated for groundwater extraction – its not clear which aquifer this extraction is from and therefore there may be no connection between groundwater extraction and reduced surface flows.

A number of licences do not appear to have a 'Cease to Pump' condition applied, and those which do are required to stop pumping from the creek when there is no visible flow. In this climate, no visible flow usually indicates severe drought conditions. Whilst the area did briefly experience a dry period (eventually classified as a drought January through March) usually groundwater would be sufficient to maintain low flows during that time. The observations made by the landholder indicated unexpectedly low flow conditions during that time with significant drawdown during the daytime with not quite full recovery overnight.

It appears that the situation may have occurred for one or a combination of three reasons:-

1. Existing licences being utilised for the first time in the summer of 2018/19.
2. A lack of attention being paid to the 'Cease to Pump' condition.
3. An overallocation of water licences within the creek itself.

The 1999 Hydrologic Stress Classification for Current Water Extraction Rates Mapping undertaken by the Department of Land and Water Conservation indicated that the Tuckean Water Management Area (in which Youngmans Creek is situated) was highly stressed. Since that time it appears an extra 100ML have been allocated in surface water licences since 1999, although further more expert investigation is required to be sure of this. If correct, this is 133% of flow within a catchment that was previously identified as being highly stressed and with High Conservation Values attached to it also (Davis Scrub Reserve, Big Scrub remnants and the Tuckean Nature Reserve).

In the course of other work, I spoke with the local NSW Water Irrigators Council representative. His advice was that there needed to be easily visual cues for a Cease to Pump at an easily accessible location. A measure similar to the 'flood indicator depths' could be utilised marked up with different flow classes on it. Where the level fell below the Cease to Pump indicator, this would be easily self-regulated by irrigators within the catchment. He also suggested locals who have a Water Access Licence should form a Users Group so they can consider their joint response during periods of low to no rainfall, and low to no flow. Water Users Groups in other locations self-impose shorter hours of irrigation and Cease To Pump's as an alternative to regulation and to preserve flows in the creeks and rivers they operate in. These are both good

suggestions, although clearly not Council's responsibility. Apparently there is a contact with DPI Water who could assist with developing a Water Users Group.

Finally, apart from a referral to NRAR for the possible over-allocation of the creek, it would also potentially be worth liaising with Jeremy Bright (Macadamia Extension) of DPI Agriculture. It appears that the property adjacent to the creek where particularly low levels of flow were noted installed irrigation this year after a change in ownership. This is an older practice and not usually utilised for established macadamia trees.

Suzanne Acret
Environment Officer – Healthy Waterways