CLARENCE ENVIRONMENT CENTRE

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The Project Team
Natural Resources Commission
GPO Box 5341
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By email: nrc@nrc.nsw.gov.au

Dear Sir/Madam

Review of the Water Sharing Plan for the Clarence River Unregulated and Alluvial Water Sources

The Clarence Environment Centre (CEC) has maintained a proud history of environmental advocacy for more than 30 years. The conservation of our region's natural environment, both terrestrial and aquatic, has always been a priority for our members and we believe the maintenance of healthy ecosystems and biodiversity is of paramount importance.

To this aim, we have consistently expressed concerns regarding water management in the individual rivers and streams that together form the extensive catchment of the Clarence River, including serious issues with water quality and the history of ineffective regulation of water users accessing that water.

The Clarence is the largest river on the east coast of NSW. Its catchment area of 22,660 square kilometres is bounded by the NSW-Queensland state border, the Great Dividing Range at Ben Lomond, the Dorrigo Plateau and the Coastal Range. It includes the largest tidal pool of any coastal river in Australia as it flows through an extensive coastal floodplain to Yamba, where it meets the Pacific Ocean.

CEC's previous concerns regarding water extraction

The CEC commenced raising concerns regarding water extraction from the sub-catchments of the Clarence River (particularly the Orara River) in about 2007.

In 2016, before the commencement of the current Water Sharing Plan (WSP), the CEC objected to the granting of a new water access licence from the Orara River for a blueberry farm. Due to our objection, this water extraction licence application became the subject of a Tribunal hearing. That process took over a year to get to the Tribunal however, at the very start of the hearing, the lawyer representing Water NSW successfully prevented the CEC from giving evidence because we had no 'standing'. We assume this was because we had no commercial interest that would be affected by the granting of yet another licence in the Orara. Our concern for the ecology of that river, which has suffered abuse from overallocation of water licences to support turf and blueberry farms, as well as related pollution and sedimentation events from horticulture, cattle grazing, forestry operations, and prescribed and wildfire burns did not give us standing in the eyes of the Tribunal.

The Tribunal, it seems, was not interested in anyone advocating for the public interest in the protection of the environment.

It was not until 2019, 12 years after the CEC had first raised concerns about water use by horticulturalists in the Coffs Harbour region, including the Orara River, that the NSW Government undertook a reported 'blitz' on their water use. In part, the media release claimed:

> *Compliance with water take rules in the North Coast is a regulatory priority in response to public concern that has been received.*

According to the Natural Resources Access Regulator (NRAR), during the first 2 stages of that 'blitz', in May 2019 and February 2020, their investigators visited 31 properties and found 28 to be allegedly non-compliant with NSW's water laws.

The CEC were dumbfounded that almost all orchardists in the area were flouting the law, despite the industry having been warned beforehand about the proposed inspections and several years after the introduction of these WSPs. We had been assured our concerns raised in 2016 regarding the granting of additional licences for the Orara would be resolved with the introduction of the WSP. And yet the evidence of this 'blitz' was continued disregard for regulations by those who hold water access licences.

North Coast Regional Water Strategy

We note that the *North Coast Regional Water Strategy* (DPIE 2022)[1] identifies that competition for water during low-flow periods is restricting access for landholders and industries, and placing many of the region's waterways under stress. This strategy recognises that pressure on low flows is likely to increase in the future because the climate change will likely reduce flows while increasing water demands for irrigation.

Other issues that the Strategy identifies included:

- Many of the region's alluvial and coastal sand groundwater systems are highly connected to surface water flows so reductions in surface flows can reduce recharge rates. This impacts both the health of groundwater-dependent ecosystems and licensed groundwater users.
- Protecting low flows requires water users to comply with the rules. However, very few pumps for surface water or groundwater are metered. This makes it difficult to ensure water is extracted legally and shared equitably during low flow periods.
- A lack of stream gauging has made it difficult to effectively implement cease-to-pump rules. Visible flow rules have been adopted instead in many of the unregulated coastal catchments. However, these rules have been criticised for being subjective and for being so low that they do not provide sufficient protection for environmental assets.
- The protection of low flows can be compromised by water extraction that does not require licensing and approvals, particularly where there is significant take-up of harvestable rights and basic landholder rights within a catchment for domestic and stock purposes.
- Infiltration of saltwater into the alluvial groundwater sources in the floodplain.

To respond to these challenges and issues, the North Coast Regional Water Strategy identifies the following priorities:

- Taking a holistic approach to land and water management
- Preparing for future climatic extremes
- Ensuring water resource development and use is sustainable and equitable.

The CEC urges these priorities to be considered and incorporated in the review of the water sharing plans for the Clarence River and all groundwater sources within the Clarence catchment.

The questions asked by NRC in their review.

Given the CEC's priorities to protect the environment of the Clarence River and its catchment, the CEC has no comment on whether the Water Sharing Plan for the Clarence River Unregulated and Alluvial Water Sources 2016 (the 'Clarence WSP') has contributed to social, economic or cultural outcomes.

Hence only the following questions are being addressed:

1. ***To what extent do you think the plan has contributed to environmental outcomes?***

   The CEC believes that the Clarence WSP has failed to contribute to environmental outcomes. In support of this statement we cite:
   - the number of breaches detected in the 'blitz' of 2019 and 2020 in the Coffs Harbour region

[1] https://water.dpie.nsw.gov.au/__data/assets/pdf_file/0006/545091/final-north-coast-regional-water-strategy.pdf

- the fact that several rivers, including the Orara, stopped flowing during the 2019 drought
- the daily fluctuations that were detected by the Orara River gauge that could only be explained by unauthorised pumping during periods of 'cease to take'.

Fundamentally, we believe there has been an overallocation of licensed extraction in the Orara River which occurred without due consideration of the harvestable rights of all properties along that river for domestic and stock purposes. The Clarence WSP appears to be trying to mask the problems that water extraction poses for that river by including it in a broad, catchment-wide water sharing plan.

The CEC believes that the Clarence WSP is also flawed by the lack of lack of fine detail in defining the extraction management units, which has allowed the dealing (or trading) in water access licences between disparate sub-catchments and micro-catchments.

5. To what extent do you think the plan has contributed to meeting its objectives?

The Clarence WSP's objectives are appropriate and include several related to protecting environmental assets, including groundwater-dependent ecosystems, maintenance of water quality and populations of the Eastern Freshwater Cod.

As discussed above, during years of drought it appears the WSP has failed to meet its objectives in relation to protecting the environmental assets that rely on maintaining water flows in the Clarence's rivers and streams.

It also seems to be failing to meet its objectives in relation to water quality. During the recent rain events, the sediment load in the Clarence River was visually obviously much higher than normal, which suggests there are significant erosion events occurring in the catchment and degradation of riparian vegetation.

However, in the absence of a detailed report on each of the relevant performance indicators listed in section 12 of the WSP, the NRC will lack any evidence to claim that the WSP is meeting its objectives.

The shortfall in monitoring regime and the collection of data relevant to each of the performance indicators is not just a problem for the Clarence WSP. The NRC's *Audit of the implementation of the Hastings and Bellinger unregulated and alluvial water sharing plans* (June 2024) highlight the lack of systems and processes in place to assess performance indicators, and that monitoring and data collection had only recently commenced in those catchments to enable assessment of performance indicators over the life of those plans. Further, the monitoring which existed had gaps across the range of performance indicators under those plans.

At the moment, the WSP relies on licensees to check if 'cease to take' conditions apply (either by 'visual inspection' or by an internet search) before turning on their pumps and recording that check in their logbooks. This appears to be a flawed system. As acknowledged in the *North Coast Regional Water Strategy*, visual inspection is subjective and not an accurate measure of river flow. Internet searches are also prone to user error, compounded by that user then manually recording the search time and outcomes in a logbook.

6. What changes do you think are needed to the water sharing plan to improve outcomes?

A major problem with the WSPs is that they are based on long-term average annual extraction limits, which includes estimated domestic and stock rights plus the share component of all current water access licences. There is no explanation of how the estimated 'basic landholder rights' in each sub-catchment have been calculated.

Further, no evidence is provided to confirm that the process of granting the current water access licences was carried out in a manner that was scientifically rigorous and based on maintaining environmental flows in each micro- and sub-catchment, given domestic and stock rights to also pump from the river.

Hence, it seems there is no evidence that the long-term average annual extraction limits are currently sustainable, let alone in a future where rainfall patterns will become more unpredictable and less reliable because of climate change.

When it comes to the Clarence River Coastal Floodplain Alluvial Groundwater Source, the Clarence WSP sets the long-term average annual extraction limit to be 5,457 ML/year which, apparently is equal to current 'entitlements' plus estimated future water requirements for the term of the plan. It is unclear whether saltwater intrusion into this aquifer has been a consideration in setting this limit. It is therefore disconcerting that, as written, the Clarence WSP allows for the long-term average annual extraction limit to be increased to 11,750ML/year. Again, that figure is provided without any justification.

It appears the only caveat on that increase appears to be that any amendment to a long-term average annual extraction limit **should** maintain the protection of the Clarence River Coastal Floodplain Alluvial Groundwater Source and its dependent ecosystems and **should** ensure consistency with the WSP's objectives. The CEC recommends that stronger language be used to ensure that any increase **must** be consistent with the WSP's objectives including the protection of all riverine and groundwater dependent ecosystems.

The CEC recommends the following changes:

(a) Publication of an explanation of intended effect that clearly summarises the rules and can communicate key aspects of the plan to landholders and the broader community.

(b) Clarification of the impact assessments triggered under Part 5 of the *Environmental Planning and Assessment Act 1979* which are (or should be) undertaken by the Department when approving the transfer of water access licences or increasing any extraction limits, including the cumulative effects of extraction on a sub- and micro-catchment scale, whenever licences are proposed to be traded between sub-catchments.

(c) Consistent with the priorities of the North Coast Water Strategy, requiring the environmental impact assessments which the water licensing approvals to incorporate consideration of the cumulative impacts on biodiversity, water quality and changes in stormwater runoff of the associated land management decisions, such as the change in land use from broad-acre grazing to irrigated pasture or horticulture, clearing of native vegetation and construction of new dams.

(d) Publication of documentation supporting the Clarence WSP that provides the calculations of estimated domestic and stock rights, and the long-term average annual extraction limit by sub-catchment, and demonstration that the extraction limits are appropriate under predicted worst-case climate change scenarios at a sub-catchment level.

(e) Tighter language to ensure the requirements of the WSP are observed (e.g. by replacing 'should' with 'shall' or 'must' in sections 34, 35, 36, 37, 72 and 78)

(f) A comprehensive audit of the adequacy of river gauges and groundwater monitoring bores, and how they are being (or can be) used to inform the triggers for low-flow and cease-to-take restrictions. Specifically, this audit should consider adequacy in location, reliability, maintenance and frequency of data collection, and how well they cover all sub- and micro-catchments where water extraction occurs.

(g) Better communication and notification to licensees (e.g. by text messages) of when low-flow restrictions commence and when 'cease to take' conditions apply.

(h) Removal of any 'visual inspection' option to determine if flow conditions are sufficient to allow for pumping.

(i) Mandatory replacement of all unmetered pumps with ones that have meters complying with the Australian Standard for non-urban water meters (AS4747) and also tamper-proof data loggers.

(j) An audit of all groundwater monitoring bores to determine if there are enough monitoring points to establish base line data so that the cumulative impacts of increased extraction are identified and to determine if groundwater-dependent ecosystems are sufficiently protected.

(k) An audit of the quality and comprehensiveness of water quality testing at a sub- and micro-catchment scale.

Regarding recommendation (c), it appears there are no current requirements for a licensee to undertake any form of environmental impact assessment as part of their change in land management practices driving the application for the water licence. A key example in the Orara catchment is where land is cleared from forest to allow development of water-dependent horticultural activities such as blueberries. These land-use changes are often associated with construction of additional dams, substantial ground disturbance for irrigation pipelines and disturbance of riparian vegetation associated with pumping infrastructure. As such, it is highly recommended that the following legislation be changed to specifically require evidence-based assessments of the potential impacts of changed land management activities to ensure water management is sustainable for everyone:

- legislation which defines allowable clearing of native vegetation on rural-zoned land (i.e. Part 5A of the *Local Land Services Act 2013*)
- environmental planning instruments that identify horticulture as permissible without development consent on lands zoned as RU2 Rural Landscape (e.g. Clarence Valley Local Environmental Plan 2011)
- legislation covering water access licensing (i.e. Chapter 3, Part 2 of the *Water Management Act 2000*) to require that the licensee provides the necessary information regarding biodiversity impacts and changes to stormwater flows, and exercise of harvestable rights to inform the necessary consideration of cumulative impacts in the review of environmental factors prepared before the licence or trade in licence is approved.

Most importantly, in an effort to reduce the complexity of the Clarence WSP and its length, as well as avoiding inappropriate inter-catchment trading of licences, the CEC recommends that the Water Sharing Plan for the Clarence River Unregulated and Alluvial Water Sources is **split** into separate plans for each of the Clarence's major sub-catchments, namely:

- the Nymboida/Mann (below the weir)
- the Upper Nymboida/Blicks/Bobo/Wild Cattle Creek (above the weir)
- the Orara
- the Upper Clarence/Timbarra (upstream of Tabulam)
- the Mid Clarence (Copmanhurst to Tabulam)
- the Clarence Tidal Pool (downstream of Copmanhurst)
- Coldstream River
- Swan Creek
- Whiteman/Stockyard
- Sportsman/Dilkoon
- Wooli Wooli River
- Angourie-Redcliffe and Sandon Rivers Water Source.

The CEC also recommends an independent scientific report on the plan's performance indicators before the plan is renewed for a further 10 years.

In the absence of comprehensive data from scientifically rigorous monitoring, evaluation and reporting, the Clarence WSP should only be renewed on a year-to-year basis until that data is collected, validated and is made available to the public.

The CEC requests that these recommendations are considered in the NRC's review of the Clarence WSP.

Yours sincerely

Phil Redpath, Vice President