SUBMISSION - FNC Water Strategy

I am an ecologist and epidemiologist with fifty years of experience. I have worked as a wildlife researcher for Australian and NSW National Parks and Wildlife services and as an epidemiologist in Public Health for NSW Health. I also compiled Lismore City's first Community Profile. Living on the NSW Northern Rivers for forty years I have developed a deep understanding of the region, its growth trajectory, its people and their needs. I also have a deep understanding of the complexity of the climate crisis now facing our planet and of the added importance this places on maintaining the diversity within our existing natural life support systems.

From that and other key perspectives, with this submission I wish to strongly object to one particular strategy of The Far North Coast Regional Water Strategy, the New Dunoon Dam on Rocky River.

Why is the proposed new dam totally unacceptable?

Water security is certainly an issue in our region and with increasing climate-induced fire, drought and less-predictable rainfall it becomes a priority. However, we are blessed with much higher rainfall than neighbouring regions to our west and that gives us great scope to ensure we don't create even more problems by simply rushing to build more dams. As a local resident who has put a great deal of time and effort into protecting our water and unique biodiversity, I see the proposed dam as a prime case of doing just that.

The tangible and intangible costs of damming Rocky Creek in a rare sandstone rainforest gorge with particularly high ecological diversity and environmental value, are huge. It would clearly involve the destruction of an iconic geographic site containing rare and endangered flora and fauna. Upstream, it would flood more sites of significance and also areas of highly productive farmland.

Why would Rous Water do that when there are much smarter, less invasive solutions?

One of the key issues with taking the simplistic approach to water security of just adding more dams, is the totally lost opportunity to invest in system-wide water efficiency, the cheapest and fastest way to ensure a good balance between supply and demand. If Sydney added an additional 950,000 people by this means without a rise in consumption, then why can't Rous Water do likewise rather than destroy precious sites, ecosystems and farmland. (Metropolitan Water Plan 2006, NSW Government) (1). From that perspective, the proposed dam would simply waste valuable community funds that could be used much more efficiently through a modern approach rather than an archaic and destructive one. Without addressing inefficiencies of use, a new dam would just encourage continued inefficient and often wasteful water management by local governments with no incentive to do things differently.

The Channon Gorge is also part of our regional network of ancient Indigenous sacred sites and a place of great spiritual significance to our Aboriginal community. It is sited upstream of the gorge in an area that the new dam would totally submerge! As such, damming Rocky Creek would just add to the ongoing disregard for First Nations' heritage and to the destruction of important Indigenous cultural heritage, including burial sites (Cultural Heritage Impact Assessment, 2011) (2). This is a time when all our regional councils should be focussed on healing past injustices and certainly not a time for adding further injury to insults already perpetrated by previous government bodies on our fellow Indigenous residents.

The Channon Gorge contains an endangered ecological community of lowland rainforest, including one of the few remaining patches of warm temperate rainforest on sandstone. It is home to species of threatened flora (Nan Nicholson, botanist) and endangered fauna (Dr Eric van Beurden, biologist). (Terrestrial Ecology Impact Assessment, 2011) (3).

Any thought of offsetting destruction of that scale and significance, would be totally unethical and reprehensible. In this respect Rous Water's proposed plan to offset by merely regenerating some degraded land in the buffer zone, is hugely problematic. There is no ethical way one could ever justify a skerrick of equivalence between restoring a patch of vegetation on a piece of previously cleared land, with totally submerging rare and precious rainforest, vandalising sacred sites and pushing endangered species even further towards extinction.

State planning regulations require Rous and other councils to: "Focus development to areas of least biodiversity sensitivity in the region and implement the 'avoid, minimise, offset' hierarchy to biodiversity, including areas of high environmental value." (NSW Department of Planning, Industry and Environment 2019, 'Delivering the plan', Sydney, Direction 2: Enhance biodiversity coastal and aquatic habitats and water catchments. (4))

Apart of the above-mentioned serious ethical considerations, regional authorities are required to avoid such destruction because there are economically viable and more effective solutions. The enormous cost of the dam when compared with other inexpensive alternatives, would put equally enormous pressure on the cost of water to users.

Rous Water's general manager has warned of a fourfold increase in the cost to end users, of supplying water if the dam is built! How can such costs and destruction be justified in a region with our generous annual rainfall and a projected population increase for the four Rous-supplied councils of only 12,720 (5) between 2020-2060? (NSW Department of Planning, Industry and Environment 2019, 'NSW population projections ', "Local Government Factsheets" (5)).

Rous County Council has flagged multiple additional problems associated with their Dunoon Dam proposal as: 'Ecological and cultural heritage constraints', but in every case has suggested that further 'assessment' may enable them to circumvent each issues they have raised. For example they know full well that traditional owners are furious at the prospect of their sacred sites being destroyed, yet they suggest this can be addressed by: 'assessment of potential impacts on cultural heritage sites'. ***In fact, no amount of assessment will save those sites if a dam were to be built.***

They propose similar assessments for other problems that I believe are not solvable. Furthermore the only environmental assessment completed to date was I believe, totally inadequate in terms of some of its key survey methodologies. For example, there are at least two species of threatened frogs that I believe to be highly likely residents of the site but were highly unlikely to have been detected using a few brief sound recording sessions.

What are the alternatives?

There is a wide choice of alternatives. The really obvious smart alternatives that are currently being

implemented in more advanced-thinking jurisdictions around the world, include:

- System-wide water efficiency enhanced through strong demand management. (6)
- Identifying savings within the existing supply. (7) (8)
- Water re-use including Purified Recycled Potable water. Example: The city of Windhoek in Namibia in Southern Africa has been using purified recycled water for 30 years using advanced technology. https://www.wingoc.com.na/our-history (9,10)
- Water harvesting (urban runoff; rain tanks): Water tanks on all new (and existing) developments. (11)
- Groundwater, where this is environmentally safe. (12)

With these as just a few of the many preferable alternatives, there is clearly no need to destroy one of our state's most iconic, precious and endangered natural resources. Implementing such alternatives will make our water supply resilient to both drought and population growth. It will also protect and enhance a region that others will always look to, as the prime example of a regional community that cares for its residents and its natural wealth in equal measure and in ethical balance.

In light of these serious considerations I sincerely urge DPIE to disqualify the proposed strategy of a new dam in The Channon Gorge, from any part the Far North Coast Regional Water Strategy.

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References

(1) Metropolitan Water Plan 2006, NSW Government.
(2) Ainsworth Heritage, Cultural Heritage Impact Assessment, 2011
(3) SMEC Australia, Terrestrial Ecology Impact Assessment, 2011
(4) NSW Department of Planning, Industry and Environment 2019, 'Delivering the plan', Sydney, viewed 03 August 2020

<https://www.planning.nsw.gov.au/Plans-for-your-area/Regional-Plans/North-Coast/Delivering-the-plan> , Direction 2: Enhance biodiversity coastal and aquatic habitats and water catchments.
(5) NSW Department of Planning, Industry and Environment 2019, 'NSW population projections ', Sydney, viewed 03 August 2020, Scroll down to "Local Government Factsheets".
(6) Environmental Flows Assessment Proposed Dunoon Dam, 30 Aug 2012, Eco Logical Australia.
(7) The Rous Regional Water Efficiency Program 1997, Final report of the Rous Regional Demand Management Strategy : preferred options, Rous County Council, Lismore.
(8) Watson R., Turner A and Fane S 2018, Water Efficiency and Demand Management Opportunities for Hunter Water, Institute for Sustainable Futures, Sydney.
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(10) Windhoek Goreangab Operating Company (Pty) Ltd 2020, Our History: Wingoc, Veolia Environment, Windhoek, viewed 3 August 2020,
(11) Australian Government Department of Industry 2013, Science, Energy and Resources, Rainwater: Your home, Canberra, viewed 3 August 2020,
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