

From: [REDACTED]
Sent: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: SUBMISSION - FNC Water Strategy
Attachments: Koala corridors map by E. Stone.jpg

SUBMISSION - FNC Water Strategy

Dear Sir or Madam,

I live on a timber/cattle farm at Whian Whian and run a medical practice at Dunoon, near the proposed Dunoon Dam. I am an active member of Whian Whian Landcare.

Thank you for developing the Far North Coast Water Strategy. It is well researched and considered and provides a range of reasonable options to ensure our water supplies into the future.

However I am writing to request that Rous County Council's Future Water 2060 project be removed from the final FNC Water Strategy as it involves the construction of the previously rejected Dunoon dam.

There is widespread public opposition to the Dunoon Dam, and Rous has not been open with DPIE and government.

- Rous and Lismore Council failed to provide the Department of Primary Industries and Environment with an accurate appraisal of Dunoon Dam. The dam is highly controversial, and resisted. There is widespread concern about the destructiveness of Dunoon Dam and also the failure of RCC to plan for water resilience using modern technologies.
- 91% of 1290 written and online submissions to RCC opposed the dam option. Over 300 of the written submissions are identified as individual and not pro-forma submissions, demonstrating a high level of engagement. Exhibition ran for 2 months "with strong promotion" (VAXA, *FWP2060 Outcomes from Public Exhibition - 2020, 2020*).
- Social rejection demonstrates the dam option fails the "triple bottom line" test [economic/environmental/social]. A broad suite of other effective options were preferred by respondents.

Other reasons to remove Rous's Future Water 2060 project from the FNC Water Strategy are:

Climate change

- Water Services Association of Australia describes new dams as high-risk investments because they depend on rain. They recommend a mix of complementary water strategies. (WSAA, [All Options on the Table](#), 2020).
- Professor Stuart Khan (UNSW) has said a resilient water system would have 30-50% of supply from sources that don't depend on rain, such as Purified Recycled Water and desalination, both of which can be powered by renewable energy. (ABC North Coast Radio, 22/10/20)
- The [NSW Productivity Greenpaper 2020](#) recommends water efficiencies, and the uptake of new sources such as purified recycled water. (NSW Treasury, *Productivity Commission Green Paper: continuing the productivity conversation*, 2020. Accessed at <http://productivity.nsw.gov.au/green-paper/water-energy>)
- Rous Future Water 2060 fails to mention system resilience as important, and seriously examined only groundwater and Dunoon Dam. (Rous County Council, [Future Water Project 2060](#), 2020.)

Rous County Council have failed to show leadership

- All options need to be given serious attention including water efficiency, roof and stormwater harvesting (including tanks), and water sources that don't need rain such as purified recycled water and desalination.
- RCC failed to provide leadership in increasing knowledge of innovative water management. There is a lack of familiarity with options showcased by WSAA in [All Options on the Table](#) (WSAA) and on the Cooperative Research Centre Water Sensitive Cities [website](#). The narrow focus on Dunoon Dam has stunted water literacy in the region. This is a deficit that DPIE needs to rectify in the Regional Strategy.
- New housing developments can build in innovative water systems from the ground up, the cost of which can be borne by developers.
- Because of this failure of leadership and governance, *Rous Future Water 2060* is a flawed plan that reflects an outdated, stunted approach to water system planning, and must not be used to underpin the Regional Strategy.

RCC has ignored system-wide water efficiency which is cheap and recommended

- Water efficiency is cheap and effective ([All Options on the Table](#) p3). It is also recommended by the 2020 NSW Productivity Commission Green Paper. (NSW Treasury, *Productivity Commission Green Paper: continuing the productivity conversation*, 2020. Accessed at <http://productivity.nsw.gov.au/green-paper/water-energy>)
- Rous County Council omitted water efficiency from its 2020 Integrated Water Cycle Management Development options for increasing supply and undertook no specialist studies on it. (<https://rous.nsw.gov.au/page.asp?f=RES-HOV-71-65-36>)
- Professor Stuart White identified significant potential increase in Rous supply through efficiency measures neglected by Rous. (<https://waterinthemrivers.org/wp-content/uploads/2020/11/Prof-Stuart-White-Brief-Review-Rous-Water-augmentation-20200904-1.pdf>)
- The lack of attention to water efficiency is evident from the fact that during the past 2 years there was a significant amount of time in which RCC did not employ a Demand Management officer. The position is now filled part-time, reflecting the low priority that RCC still attaches to water efficiency.

The destructive impacts of Dunoon Dam have been noted in numerous reports

- In 2010 Terrestrial Ecology, Aquatic Ecology, and Cultural Heritage reports all found serious impacts from a dam in this location on Rocky Creek. Members of a Public Reference Group voiced their concerns and opposition. (SMEC, *Dunoon Dam Terrestrial Ecology Impact Assessment*, 2011)
- In 2013 a Technical Report noted that the dam was constrained by significant environmental and social impacts, high capital cost, and the fact that it was 'highly climate influenced' (p52).
- An Integrated Water Planning report in 2014 noted that although the dam was 'technically viable', it had 'significant environmental and social constraints associated with threatened and endangered terrestrial ecology and culturally significant Aboriginal heritage'.

The destruction of Aboriginal Heritage by Dunoon Dam is unacceptable

- The 2011 Cultural Heritage Impact Assessment states "Aboriginal stakeholders are of the opinion that the sites should remain undisturbed and that no level of disturbance is considered acceptable to them". This heritage would be destroyed by any dam.
- In 2013, Rous County Council commissioned another Cultural Heritage Impact Assessment (CHIA 2013) to supersede the 2011 CHIA. It seems that very few Wijabal Wia-bal stakeholders have seen the 2011 or the 2013 CHIAs, or have been aware of their existence. Rous are now asking the Wijabal Wia-bal to repeat the CHIA process yet again, apparently until they get the result they want.
- When RCC promotes the dam as the 'cheapest option' it must be noted that destruction of the Juukan Rock Shelters was also thought the 'cheapest option' by Rio Tinto, at the time.

The ecological impacts of Dunoon Dam are unacceptable.

"Offsets" are unacceptable when set against these potential extinction pressures.

Destruction of Big Scrub Rainforest and its threatened species

- There are 62 ha of Lowland Rainforest Endangered Ecological Community (EEC) on the site. Only 1% of the Big Scrub Rainforest remains. This rainforest is of global significance.
- The Channon Gorge contains warm-temperate rainforest on sandstone, a rare occurrence. The dam wall construction would destroy 92% of it..
- Nine threatened flora species would be severely impacted by Dunoon Dam. (2013 Terrestrial Ecology Impact Assessment Report). The destruction of these plants and an increase in the threats against them is a very serious matter with international scientific consequences.
- 17 fauna species have been identified that are listed as threatened under the TSC Act NSW (the koala, one fruit bat, six microbats and eight birds and one frog).

Extinction pressure on koalas

- North Coast koalas were under extinction pressure even before the catastrophic 2019 summer fires
- The 2011 *Terrestrial Ecology Impact Assessment* (TEIA), identified 72 ha of Tallowood and Flooded Gum koala habitat. (https://waterinthemrivers.org/wp-content/uploads/2020/11/Dunoon_Dam_Terrestrial_Ecology_Impact_Assessment.pdf)
- Koala corridors would be severed by the Dunoon Dam (TEIA 2011). Habitat fragmentation contributes to the decline in koala populations, will worsen the stress-disease problem and lead to more deaths.
- Koalas are commonly seen and heard in the area of the proposed dam wall and The Channon.
- Whian Whian Landcare has planted almost 3000 koala food trees to rebuild corridors in the proposed dam area - linking to tracts of forest to the north. This southern corridor would be destroyed. See picture attached, a map created by Whian Whian Landcare.

Extinction pressure on platypus

- Platypus is facing extinction because of habitat destruction, dams and weirs (Bino et al, *A stitch in time – Synergistic impacts to platypus metapopulation extinction risk*, Biological Conservation, Feb 2020)

- There are breeding platypus on Rocky Creek. The Dunoon Dam would hasten the decline of this species.
- Construction of the dam will reduce platypus habitat downstream, due to sediment load smothering (The 2012 Aquatic Ecology Assessment p.61).
https://watnorthernrivers.org/wp-content/uploads/2020/11/Aquatic_Ecology_Assessment_Final_Report-1.pdf

Extinction Pressure on Native Fish

- A Dunoon dam would extinguish nearly all of the endangered Eastern Freshwater Cod's Rocky Creek habitat due to cold water pollution downstream (NSW Fisheries, *Eastern (Freshwater) Cod (Maccullochella ikei) Recovery Plan*, 2004). The existing NSW DPI Eastern Freshwater Cod Recovery Plan aims to restore this species to the Rocky Creek and Richmond River systems. It depends on quality habitat and natural flows. (<https://www.dpi.nsw.gov.au/fishing/fish-species/endangered-species/eastern-freshwater-cod>)
- Another 16 native fish species are also threatened by a significant and permanent loss of this 17.5 kms of habitat, including Oxleyan Pygmy Perch and Purple Spotted Gudgeon (2011 Rous Aquatic Survey).

Further information is available on the Water Northern Rivers website: www.watnorthernrivers.org. This website is a collection of all of the available information on the Dunoon Dam and its impacts. It is the result of thousands of hours' work of many volunteers, who are putting their lives on hold while they try to stop this ridiculous dam and lead Rous towards researching and implementing smart water systems in our area.

Thankyou kindly for considering my submission,

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