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SUBMISSION

to the

NSW Department of Planning, Industry and Environment

on the

Draft Far North Coast Regional Water Strategy

Introduction

The Clarence Environment Centre (CEC) has maintained a shop-front presence in Grafton for over 30 years and has a proud history of environmental advocacy where water issues have been a recurring concern. Therefore, when invited to sit in on a zoom briefing on the proposed regional water strategies, I regret to report that it generated a depressing feeling of déjà vu. The same glib assurances have been given time and again for various Water Sharing plans that these strategies are presumably going to change. Every one of those previous plans promised to protect environmental flows and water quality. Instead, all we got was scandal after scandal, revealing massive water theft and roting of the system. All the while, the rivers ceased to flow, causing unprecedented fish kills and the decline and demise of entire ecosystems as a result.

How can we have any faith in these new strategies when “enabling economic prosperity” is high on the list of objectives? If history has told us anything, it is that the moment “economic prosperity” is threatened, the environment will get ‘screwed’ as a first response.

The Draft Strategy

The stated objectives are to “*deliver and manage water for local communities*”, “*Enable economic prosperity*”, “*Recognise and protect Aboriginal water rights*”, and finally, “*Protect and enhance the environment*”.

There are 39 various options presented to achieve these objectives, some of which, in our opinion, have merit, while others are a recipe for ecological disaster. Let us start by assessing the former

6 and 7. (talking about recycled water), *“Highly purified recycled wastewater from sewage treatment plants has the potential to be a reliable, safe and relatively climate-independent water source”*.

The use of recycled water is something we strongly support and should go far beyond the watering of golf greens and racecourses which is the case in some jurisdictions. The proposed expansion of dual reticulation is also supported, but cost-effective retrofitting of existing buildings should be examined.

10. *“Desalination can be an attractive option for coastal regions as it offers a virtually unlimited, climate-independent source of water”*.

We fully support this option, as sea water is one natural resource that is actually increasing, thanks to global heating, but this option is energy intensive. However, some 20 years ago, an emerging solar desalination technology was being promoted as the way of the future. We are not on top of how this technology works, but ask why it receives no mention in the Draft Strategy

21. *“Establish and/or increase environmental release requirements or environmental contingency allowances at major water storages”*.

Of course, we support any initiative that increases environmental flows.

23. *“Investigate potential locations for precinct-scale schemes to harvest and reuse stormwater in urban developments”*.

As the infrastructure is there, i.e., a network of drains and stormwater pipes, this is also something we support. However, storages should be properly constructed tanks, not be just another hole in the ground or dam, subject to seepage and evaporation.

24. *“A ‘Bringing Back Threatened Species’ program to restore riparian and wetland habitats by protecting and enhancing priority areas using best practice management”*.

Clearly a ‘no-brainer’, which is wholeheartedly supported.

25. *“Install screens on pumps to reduce the amount of fish being extracted at pump sites”*.

Are you serious? Isn’t this already happening?

26. *“Replace or remediate five high priority fish barriers in the Far North Coast region”*:

Again, this option is supported.

31. *“Better manage catchment hydrology and erosion by providing landholders with financial assistance and technical expertise to implement river rehabilitation works. The program could include instream works (such as log jams, rock chutes, log weirs and rock revetment), establishing/ rehabilitating riparian vegetation, reducing erosion and decreasing sediment loads in streams”*.

While fully supporting this option, we have to ask, **why is there no mention of the greatest single contributor to streambank degradation and erosion? Trampling and browsing by unrestrained domestic livestock. Almost all creek bank erosion problems could be solved if they were fenced to prevent access by cattle.**

33. *“Review the efficacy of the water markets (unregulated, regulated and groundwater) in the Far North Coast region, including identifying opportunities to improve water accessibility and security outcomes across the region”.*

A review into the efficacy of water markets is welcomed. However, we are concerned about the growing “market” in water trading. Water is an essential commodity that supports all life on the planet and should not be “owned” by individuals for sale to the highest bidder. The bottled water industry is, by and large, a scam, with the final product no different to what can often be sourced from the kitchen tap. This industry not only causes groundwater depletion in many parts of the world but contributes massively to plastic pollution. Therefore it should be stopped.

34. *“Investigate the coordination of a region-wide water conservation and demand management program that would include all local water utilities in the Far North Coast. The program could also include rural water users”.*

An excellent initiative that should have been undertaken before blithely handing out water licences and allowing farmers to dig dams and irrigate crops without knowing, or caring, where the water will come from.

On the other side of the equation, the following options are not supported.

4. *“Construction of infrastructure and development of governance arrangements to facilitate two-way transfer of water between the Far North Coast region and South East Queensland. This could provide mutual water security benefits for the Far North Coast and South East Queensland communities”.*

12. *“Augment the Tweed water supply system by raising Clarrie Hall Dam by 8.5 m to achieve an increase in dam storage capacity from 16 GL to 42.3 GL. Tweed Shire Council is currently preparing an Environmental Impact Statement for this project, due for public exhibition by March 2021”.*

13. *“Construction of a dam on Byrrell Creek to augment Tweed Shire Council’s water supply system”.*

14. *“Build the Dunnoon Dam”.*

19. *“Raise Toonumbar Dam to increase storage capacity”.*

All 5 options to build new dams, or raise existing reservoirs, are not supported for the following reasons:

Consequences of damming

(As identified by NSW Department of Water Resources (Don Geering, 1988):

- Reduced visible amenity, more prominent mud banks and riverbank slippage, resulting in a reduction in the health of riverbank vegetation with an increase in weeds.

- Fisheries rely on 'freshes' in the river to trigger spawning runs. As these freshes would become less frequent, this industry could be jeopardised.
- Many freshwater fish species rely on large water flows to trigger spawning runs. The reduction of flows is likely to severely impact fish populations, and adversely influence recreational fishing.
- Fish diseases such as Red Spot appear to be related to poor water quality. Reduction of flows will tend to further concentrate pollution and increase these problems.
- Fish populations could be seriously affected to the detriment of commercial fisheries, tourism, and recreation.
- Tidal prism. Reduced flows will result in salt water being pushed further upstream. Tidal velocities will tend to increase, with possible effects on bank stability.
- Dams occupy land that could otherwise be productive and serve to sterilise economically and environmentally valuable areas.

Other known impacts resulting from the construction of dams:

- Changes in water temperature – full impacts not known.
- Reduction of nutrient flows onto the floodplain and into the ocean.
- Interruption of sedimentary flows, also critical to fish species.
- Destruction of threatened species and endangered ecological communities.
- Destruction of threatened species' habitat.
- Massive fragmentation of forest habitats by pipelines, power lines, and inundation of river valleys.
- Flow regulation prevents natural rise and ebb of water levels after each rain event.
- Climate change implications through loss of carbon-storing forests and construction emissions.
- Many of the above impacts are not restricted to the dam's construction, there are also pipelines, power lines etc, which require ongoing maintenance.

Relevant quotes:

- ***“It is apparent that any proposal to divert substantial quantities of water from the Clarence would present significant risks to the health of riverine ecosystems, and those activities and values dependent on them.***
(Commissioner Peter J. Crawford, Healthy Rivers Commission: Final Report, November 1999 (page 156)).
- ***“It is important to note that freshwater flows through catchments or into the ocean are not wasted. It is an essential element of downstream ecosystems.”***
(The Hon Malcolm Turnbull, Minister for the Environment and Water resources, 2007).
- ***“...we move beyond last century's solutions. Building a dam... would be an expensive, ineffective response - it would take years to build and even longer to fill, not to mention the damage done to the surrounding farmland and natural areas.”***
(Late Premier of NSW, the Hon Bob Carr).
- ***“In environmental terms, the no dam option would be highly desirable and beneficial”***
(Recommendation of the World Commission on Dams)

It should be noted that, around the world, even in the United States, dams are being decommissioned to restore natural flows, and ecosystems.

15. *“Increase the proportion of rainfall that can be captured as a harvestable right. A review of harvestable rights is currently underway and is considering the effects of increased harvestable rights and of allowing dams to be built on larger tributaries within NSW catchments that drain to the coast. It aims to determine if greater access to water for agricultural production could be allowed while ensuring enough water is available for downstream water users and the environment”.*

The Clarence Environment Centre, among others, has long held concerns about the unregulated nature of farming operations in general, and in particular, the burgeoning intensive horticultural industry. In the past we have highlighted four main issues, land clearing, water use, plastic pollution, and pesticide run-off. But first, some history.

As far back as 2007 we began to express concerns about practices being perpetrated by those engaged in the blueberry industry, urging ministers and regulatory bodies to impose **regulations that would require the preparation of a development application and water management plan.**

None supported the introduction of any such measures, although individuals within those agencies admitted, unofficially, that there was a problem. The official reasons given included the nonsensical comment from the Primary Industries’ minister at the time, who stated he was not in favour of regulations, because their imposition **“might encourage non-compliance”!** Eventually, the complaints from the public were so loud and varied, that the Inter-agency Blueberry Advisory Committee was formed in about 2016.

Of course, because there were few regulations, that Committee had no enforcement powers, However, by 2017 the committee had reported widespread illegal land-clearing, including repeat offenders, and the conclusion that **“growers are prepared to pay fines as a business cost”.** Complaints about water use, pesticide use and spray drift; poor worker accommodation and site safety, along with observations that erosion control was virtually non-existent, were also reported by the committee.

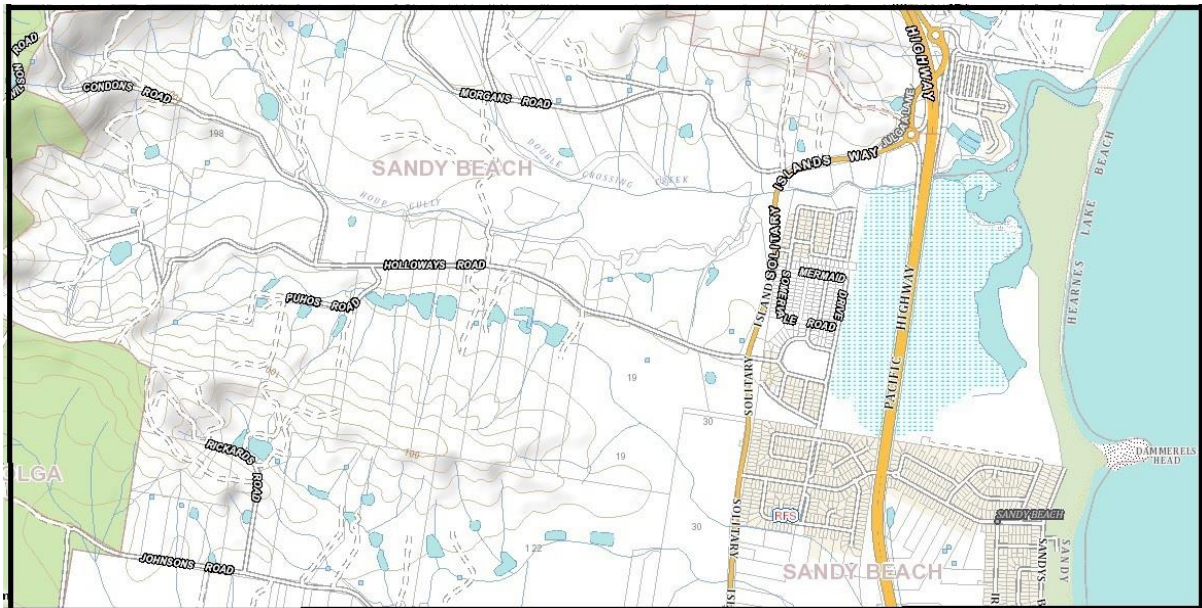
Incredibly, none of this appears to have rung alarm bells with those councils and agencies that should have had concerns about water quality. Reports of excessive nutrient and pesticide run-off into Coffs Harbour’s creeks, released by Southern Cross University, have not resulted in any real preventative action.

More surprisingly, the current misuse of “harvestable rights” by the intensive horticulture industry, receives no mention at all in the North Coast Regional Draft Strategy.

Recent reports from the EPA, following a long-overdue compliance blitz on water use by blueberry farmers in the Coffs Harbour area, found that close to 90% of the properties they had investigated, were non-compliant, proves our point, and it is reasonable to assume that the same applies to the North Coast Region.

Dams large enough to contain a property’s harvestable rights can be constructed without approval but are frequently built to a far larger capacity (see latest EPA report on issues found near Coffs Harbour). Also, there is no metering requirement, allowing irrigators to empty, refill those dams, and empty them multiple times annually if there is water in them, meaning they are removing far more than their entitlement.

But identifying the illegal activities of individual property owners does not solve the overall problem, which is the cumulative over-use of water. The very unregulated nature of this industry ensures that the cumulative impact on creek and river flows is never considered.



The above image of a blueberry growing hotspot on the edge of urban Sandy Beach, north of Coffs Harbour, clearly illustrates the problem. There are over 50 dams in this picture, built on every available first and second order stream, ensuring no flows occur in the third order streams except during heavy rainfall events. **And nobody appears to be concerned!**

Therefore, we wholeheartedly oppose any proposal to increase harvestable rights. In fact, we urge DPIE to introduce regulations that require these developments to prepare a water management plan for approval prior to commencement, so that regulatory authorities can assess whether there is in fact sufficient water to go around, before granting approval.

17. *“Consider and assess several on-farm water storage options. This option would assess the current levels of farm dam implementation and use, the hurdles to constructing on-farm storages, the value of on-farm storages to industry, the regional water security consequences of low on-farm storage uptake and the benefits and disadvantages of this option compared with other water storage options. This option may be linked to the review of harvestable rights”.*

This is just another way of increasing the ‘take’ of run-off, and is quite definitely linked to harvestable rights, which we have dealt with above. **i.e., there should be no increase in harvestable rights, and it can hardly be made easier for landholders to build dams to hold current allowable volumes of water, so more restrictions should be applied to dam-building, not less.**

20. *“Investigate methods for defining sustainable levels of extraction based on ecological, economic, social and cultural water needs. This would include quantifying the sustainable extraction volumes for water sources in the Far North Coast”.*

As extraction licences under the existing water sharing plans have seen an over-allocation of water in most river systems, this is something that clearly should have been done. We had assumed that sustainable levels of water extraction had been determined prior to those plans being formulated, but clearly, they had not.

We are always concerned at seeing the “triple bottom line” analysis being proposed (in this case the quadruple bottom line, with “heritage” consideration tacked on to “ecological, economic, and social” implications). Our concern stems from the fact that in the event of extreme drought conditions, economic and social considerations always take precedence over the environment.

22. “Many of the region’s rivers and creeks are under hydrologic stress during low flow periods. This option would review the barriers to, and opportunities for, converting low flow class water access licences to high flow class water access licences in Far North Coast surface water sources”.

We are unclear as to exactly what is proposed here, but any relaxing of low-flow pumping restrictions is not supported.

36. “Extend the NSW Extreme Events Policy from the Murray-Darling Basin to coastal regions to give local water utilities and other water users clarity and direction during periods of drought. The option would also establish a Critical Water Advisory Panel and develop an incident response guide for the Far North Coast region”.

The emergency powers implemented for the Murray Darling, saw environmental flows ignored with preference given to providing water to townships and industry. These measures are, in our opinion, completely unnecessary along the NSW coast where drought conditions scarcely match those of inland regions. Also, other options such as desalination, which is already on the list of options, are available in an emergency

Climate Change

Despite an acknowledgment by the draft strategy (page 40) that, *“potential evapotranspiration is expected to increase by up to 6% by 2060 compared to levels between 1990 and 2009”*. **and** *“maximum temperatures are expected to increase by 0.4–1.0°C by 2030, and by 1.5–2.4°C by 2070”*. **And also that:** *“Water stored in dams, and conveyed along open irrigation channels, will dissipate faster through greatly increased evaporation rates from their expansive surfaces”*, the draft strategy still considers numerous options for new dams, and increasing the size, and therefore surface areas, of existing storages.

The strategy does not take this aspect of climate change seriously enough in our opinion, with no options proposed to address the problem of evaporation. In fact, the climate related problem that appears to gain the most attention is the possible increased salination of coastal groundwater from rising sea levels. Witness:

Option 5. *“Identify and quantify the risks to the region’s surface water supplies due to sea level rise”.*

One certainty is, the sudden and dramatic rises in temperature from climate change over the past 50 years, will render the much lauded 10,000 years of synthetic climate data redundant. Paleoclimate records obtained from tree rings, cave deposits and coral growth will have no relevance.

Population growth

All of these options have been put forward to solve water supply problems **generated by uncontrolled population growth**. It seems surprising therefore, that no consideration is given to capping that growth.

Given the current unsustainable global population growth is generally acknowledged as the greatest threat to planet Earth, shouldn't this issue be considered as part of this and planning process?

Protecting water quality 1. Forestry operations

Most urban drinking water catchments contain forested areas, which help filter water run-off to drinking water standard, but whenever the region experiences heavy rain, water from those catchments is rendered unusable, sometimes for weeks, because of turbidity caused to a large extent by the activities of the timber industry. Forests Corporation, with their industrial logging methods, their clear-felling of pine plantations and now native forests, along with recently reduced buffer zones, are contributing to this pollution in a major way.



This is the scene in the Clouds Creek state forest pine plantation, clear-felled and cultivated to the horizon. This work was undertaken across drainage lines almost to the river itself, and the erosion potential was huge. This type of stupidity simply has to stop.

Every logging operation causes massive soil disturbance, and a mere 5m buffer, only along mapped drainage lines, is no buffer at all, and everyone downstream is affected.

Native forest logging of state forests has been losing millions of dollars annually for 2 decades, so taxpayers are not only footing that bill they are also having their drinking water polluted in the process. Why is this even being allowed to continue?

As well, many of the state forests in the Northern Rivers are leased out for cattle grazing, with cattle trampling creek banks and defecating in the waterways because there are no fences to keep them out. Again, why is this allowed?

There are also grazing properties all around these urban drinking water catchments, few of which have fenced their river and creek banks to prevent cattle from accessing our drinking water. **Clearly, neither councils nor state government are showing any interest in protecting water quality to an acceptable degree.**

2. Threat to water resources from mining

Why is minerals exploration allowed in urban drinking water catchments? We are continually reminded of the dangers of water pollution from mining as year after year, more reports of disastrous accidents, polluted rivers, and even loss of life from mining mishaps are reported. Many of the minerals sourced are highly toxic or rely on toxic processes for their extraction. Yet, despite this, there is no restriction on minerals exploration in drinking water catchments here in Australia.

These threats are downplayed by our political masters, who assure us that these 3rd world incidents couldn't happen here, where we have the most stringent safety requirements, consent conditions, and world's best practice etc. etc. etc. Despite this, it is only 2 years since the ABC broke the story that the moth-balled Baal Gammon copper mine in northern Queensland had leaked into the previously pristine Walsh River and Jamie Creek, south-west of Cairns, near the township of Watsonville. As a result, residents were told by the Queensland Government not to drink, swim in, or use the water. **Yes, it can happen here!**

As we see it, the risks are unacceptable, yet Councils wash their hands of the entire issue, claiming it is a State Government responsibility. If it is minerals exploration, any complaints to politicians will result in "it's only exploration, jus drilling a hole to see if there is anything worth digging up".

The problem is, having been granted a licence to explore, and spent millions of investor dollars drilling, the miners have an expectation to be able to mine any minerals they deem worth extracting. When faced with that proposition, the politicians fall back on our supposedly robust safety regulations and worlds best practice.

At the end of the day the mine will most likely be given approval, albeit with dozens of conditions which the politicians will then try to persuade us will ensure the operation is safe.

As we see it, mining in drinking water catchments is simply too risky, and mining leases need to be re-mapped across the whole of Australia to identify sensitive areas, drinking water catchments, heritage sites, and places of environmental significance, and scenic beauty, where mining simply should not occur, and declare them off-limits to mining and exploration. **However, there is no mention of these threats, mining, forestry, or cattle grazing, in the draft strategy. Why is that?**

Regulatory failure

Finally, we come to regulatory failure, a widespread problem that is costing the environment dearly.

Intensive horticulture on the Mid North Coast is a case in question. Numerous complaints have been made by individuals and organisations (including the Clarence Environment Centre which began its campaign to have the industry regulated as far back as 2007), about the lack of regulation and compliance monitoring in relation to the industry. An inter-agency blueberry advisory committee was formed early on in response to the deluge of complaints on all aspects of the industry's operations'

That Committee had no powers to prosecute, merely to advise, and "encourage" best practice.

However, that Committee noted widespread problems (Committee's minutes - 15th February 2017), from illegal land clearing and dam building, causing erosion and pollution of streams, to excessive and careless pesticide use, under-payment of workers, use of illegal overseas labour, to harassment and threats to neighbours. More significantly, they identified that many in the industry regarded fines as a cost of doing business, a clear case of regulatory failure. If just one orchardist, found to have illegally cleared land, had been ordered to rehabilitate that land, illegal clearing would be stopped overnight. Instead, they were prepared to pay the fine and continued in business.

In 2017, the Clarence Environment Centre forced one water extraction licence application to a Tribunal hearing in Grafton. The whole process took over a year during which time there was considerable consultation and official exchanging of evidence. However, at the very start of the hearing, a taxpayer-funded lawyer, brought in by the Grafton office of the then Water NSW, successfully prevented us from giving evidence. **We have never received any explanation as to why Water NSW was so keen to 'gag' us, but that was the level to which the agency went to ensure that no regulation was imposed, or there was any scrutiny of the industry. That, to us, was collusion**

It was not until 2019, 12 years after the Clarence Environment Centre had first raised concerns, that State Government undertook a reported "blitz" on water use by horticulturalists in the Coffs Harbour region. Their 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.

This finding that almost all orchardists in the area were flouting the law, and despite the industry having been warned beforehand about the proposed inspections, clearly shows their total disregard for regulations. In fact, 16 months after the first stage began, the third stage investigation is still finding breaches, What we find remarkable is, after all the tax-payer support and mentoring the industry has received over the past decade from agencies like Local Land Services, NRAR now reports it ***"has been working with industry groups and stakeholders in the region to educate and improve compliance and attitudes to water laws"***. No real prosecutions have taken place it seems, just more taxpayer funded advice, ***"using industry newsletters, video and web-based conferencing"***.

After 15 years of blatantly ignoring regulations, serious action needs to be taken against these serial offenders, yet governments at all levels are still refusing to require development applications or water management plans to be presented for approval by the intensive horticulture industry. As it is, they can take a bush block, clear it of vegetation, build dams and transform the entire forested countryside into a sea of plastic without the need for any approval whatsoever.

They are putting other industries and human health at risk, and they must be pulled into line. As stated earlier, water is a very precious commodity, and must be treated accordingly.

In conclusion

The lack of concern for water quality, shown by our political leaders, legislators, and regulators, is mind-boggling, and something needs to be done to rectify that.

We strongly believe that more dams are not the solution, Australia must plan within its water means, and not continue to expand its agricultural activities, or urban populations beyond the point where adequate water cannot be guaranteed without causing environmental harm. Our state and local government planners continue to expand populations in the pursuit of “growth”, and then scamper about in a panic when they run out of water.

We note the Strategy’s comments (Border Rivers water Strategy) about consideration of a “*shift from seasonal crops to permanent plantings*”, which we see as an excellent idea, but should be expanded beyond consideration of ground water. We believe it is imperative to be lot smarter about the crops we irrigate and perhaps focus on dry-land food crops rather than fibre. We need to protect water from all polluting activities, including agricultural and urban run-off, drilling and hydraulic fracturing for gas mining, and underground mining that might impact aquifers. We also need to stop the exploitation of underground water supplies from water mining for bottled water, an activity that not only depletes underground water supplies but adds massively to the plastics pollution problem.

We thank the Committee for the opportunity to comment

Yours sincerely

John Edwards
Honorary Secretary