

To: Clarence Valley Council

From: CCPA-Wooli

Re: Submission on the Draft CZMP and Attachments for Wooli, dated 11th May 2015

Dear Sir/Madam

We have reviewed the draft Coastal Zone Management Plan for Wooli recently released by Clarence Valley Council. Our comments below are for Council's consideration before finalising the plan and submitting it to the NSW Minister for Environment. The comments are organised as follows:

1. Favourable Developments compared to the 2010 draft CZMP.
2. Questions and Concerns regarding
 - a. The Trigger Action Plan
 - b. The Business Case
 - c. Alternative and Backup Plans
 - d. Managing Future Risk
 - e. Implementing the Plan
 - f. Other issues
3. Improving the presentation of the Plan.

1. Favourable Developments compared to the 2010 draft CZMP.

This CZMP is a substantial improvement on the 2010 document in many ways including:

- ***The proposal to implement a Beach Nourishment Strategy (BNS).*** This proposal (as described in paragraph 3 of the Summary) is a major positive initiative which will buy time for Wooli while all levels of government and communities address the risks of coastal erosion. It is particularly encouraging that the BNS is intended to allow Wooli beach to withstand a 1-in-50 year storm.
- ***Recognition that most of Wooli is safe for at least the next 20 years.*** The Plan's observation (page 5, para 1) that only the southern 800m is at risk over this time is very positive. It means we have a reasonable period in which to focus limited resources and improve our knowledge and methods over that area before needing to move on to other parts of the beach.
- ***Acknowledging that the BNS will produce a sustainable outcome.*** Its good news (page 6, para 1) that the combination of the BNS and recent beach trends is expected to produce a self-sustaining beach without the need to build hard structures such as sea-walls.
- ***Implementing a Beach Monitoring program.*** The community, particularly CCPA, has recognised the need for this program since 2011. Regular beach surveys and the computerised camera system have provided some progress on this, but its positive to see (refer section 4.3.1.1) that the CZMP includes a full monitoring program.
- ***Scheduling the first part of the BNS to happen ASAP.*** The BNS Design project (see 4.3.1.2) is planned to go ahead as soon as the funding application, recently submitted to state government, is approved. This urgency is positive because the project should not only resolve many detailed questions about the BNS but also give the community confidence that this plan will actually happen.
- ***Repairing beach access ways.*** Its old news that the pedestrian access ways to the beach are a dangerous disgrace. That the BNS will cause them to be replaced/renewed (Summary, Guiding Principle 6) is positive particularly if it applies to all access ways not just the southern few.
- ***Fall-back options, triggered if needed.*** The need for these options (Summary, Guiding Principle 6) if trigger points are reached is supported in principle. However, given the lack of detail provided, the options also raise concerns as described in section 2a below.

2. Questions and Concerns

a. The Trigger Action Plan (4.3.1.7)

The Trigger Action Plan is a good start but needs improvement in at least two ways. Firstly it appears simplistic in relying on just one measure of risk to the dunes (volume of sand in front of the houses). Local experience confirms that other significant risks are the shape of the beach and damaged access ways, both of which have caused the dune to be substantially undermined. The second area for improvement is the lack of clarity as to when the Land Swap option could be triggered. These limitations in the trigger action plan should be noted in the CZMP along with the intention to correct them urgently as part of the BNS Design project. Qualified professionals within the Woolli community have offered to assist CVC in developing a thorough Risk Assessment to underpin the plan.

b. The Business Case

We understand that the business case for a CZMP needs only to have a positive return to meet government requirements and that this CZMP does have a positive return. However, this business case also appears to be overly conservative and to be incomplete.

It is conservative in that the costs appear overstated and the benefits understated. A major driver of the estimated cost is the forecast rate of beach recession. The business case uses the maximum forecast rate of 4 cum/m/yr whereas more current data indicates a rate as low as 1.34 cum/m/yr. Does this mean the estimated cost for a beach nourishment campaign could be overstated by up to 200%. An important factor for the benefits side of the business case is the value of the beach to local businesses which is estimated at \$442,000 per annum (4.3.2 Table 1). A brief assessment by the Woolli Chamber of Commerce indicates this could be understated by over 500%, which over the 20 year life of the business case would be a huge difference.

While this conservative approach may get the CZMP approved, the real risk it causes may come when the funding application is made to implement the BNS. Woolli's conservative application may not stack up against priorities elsewhere on the NSW coast.

The business case (Appendix I) appears incomplete by lacking analysis of how much it changes when underlying assumptions are varied. The rate of recession and beach value assumptions described above are just two examples. In other words the CZMP would really benefit by the addition of a Sensitivity Analysis similar to that accompanying most private sector undertakings of this size.

If CVC determines the business case is sufficient to get the CZMP approved, we strongly recommend that it be revisited and improved as part of the BNS Design project. Qualified professional within CCPA would be pleased to work with CVC on this step.

c. Alternative and Backup Plans

It may take until 2018 to implement the first beach nourishment campaign (4.3.1.3). This lengthy lead time recognises the complexities of accessing sand from a national park, environmental approvals for major beach works and obtaining the necessary funding. However, the delay can be seen as causing both problems and opportunities. The problems are that the CZMP lacks a backup plan if the BNS fails to eventuate for whatever reason (eg National Parks won't allow removal of sand from behind Wilsons Headland) and also that significant damage could happen within the next 3 years. The opportunities are that these 3 years provide sufficient time to explore and implement alternatives that are simpler, faster and cheaper. These

strategies could better defend the beach in the interim and provide a proven and costed backup to BNS. Potential alternate and backup strategies include

- Beach Scraping. This involves taking sand from the inter-tidal zone and filling in the moat between our main and fore dunes to better protect the main dune. The CZMP says scraping is not viable as it does not add more sand but merely redistributes it. This contradicts not only the Chairperson of the NSW Coastal Panel who advises that the scraped sand would be quickly replaced from offshore sand bars, but also elsewhere in the CZMP where river dredging is dismissed because the dredged river would quickly refill from the offshore bars. Evidence in favour of scraping is readily available from the projects carried out at sites in Byron Bay shire
- Enhancing DuneCare. The sand-traps installed by the DuneCare group have a proven record for protecting the main dune against small and medium storms. This has been achieved at negligible cost, with few people, almost no equipment and on a trial and error basis. Possibilities for building on DuneCare's success at low cost may include using professional researchers, equipment to redistribute captured sand and renew existing traps plus extending the traps northward to capture more windblown sand for redistribution.

Pilot projects to prove and cost these potential alternative and backup strategies would be very inexpensive compared to BNS. CCPA is prepared to mount and support a campaign to generate substantial community funding to progress these pilot projects.

d. Managing Future Risk

This is the most disappointing part of the CZMP. Whereas the BNS is a positive and creative approach to defending the beach, the CZMP proposes to continue undermining the value of Woolli properties by failing to address extreme policies for managing future risk. Placement of hazard lines and notations on S149 planning certificates are the main tools used to implement these policies. Clear examples of this failure are:

- Continued reliance on the Worley Parsons 2010 report rather than updating its finding using current data and analysis tools. The community is very sceptical of this report and its continued use undermines the credibility of the 2015 CZMP
- No mention of revising the hazard lines once BNS is implemented even though it is planned to substantially reduce Woolli's future risk
- No mention of revising the hazard lines if actual data continues to show the underlying recession rate to be much lower (eg less than half of) the 4 cum/m/yr currently used in to calculate these lines
- No mention of revising the sea level rise (SLR) policy which largely determines the hazard lines unless State legislation forces this. The current policy is based on a SLR having only a 5% chance of happening according to the Intergovernmental Panel on Climate Change. S149 certificates currently note that there is a risk but fail to clarify that it is only a 5% risk.
- No mention of plans to regularly revisit the SLR policy (say every 5 years) to compare actual SLR against the forecasts underpinning the policy. Accurate data of past SLR is available for the NSW coastline from the tide gauge network. The use of four regional databases of SLR in Oceania (Fort Denison Sydney, Freemantle, Auckland and Newcastle) has been used by Australian researchers to determine the rate of SLR pertinent to the East Coast of Australia. This data shows lower rates than the global IPCC data and a recent study concluded that there was deceleration of SLR at all four sites and that the average total SLR from 1920 to 2000 was 12 cm. An evidence based approach would use that recorded rise projected into the near future and continually updated.
- No mention of removing the 2100 hazard line for existing buildings even though they have an average life of 40 to 60 years, meaning they would be replaced well before 2100
- No mention of the recent decisions by three other NSW councils to base their coastal plans on moderate and much more likely benchmarks. Wyong Council relies on existing flood management

benchmarks, Shoalhaven uses SLR benchmarks of 23cm by 2050 and 36cm by 2100 and Gosford Council uses 20cm by 2050 and 74cm by 2100. There is a striking difference between these moderate benchmarks and the extremes that CVC uses at 40cm by 2050 and 90cm by 2100.

The CZMP would be greatly improved by addressing these issues.

e. Implementing the Plan

We suggest these two important aspects of the CZMP need clarification:

- **Managing and Funding its implementation**
The CZMP proposes that its implementation be supervised by a sub-committee of the Coast and Estuary Management Committee (1.3, para 1) and that there will be equitable public and private funding of the BNS (Summary, Guiding Principle 5).
The BNS is a core component of the CZMP. Funding of the BNS is proposed to include a significant financial and monitoring contribution from CCPA. CCPA sees discussion of its potential role in supervising CZMP progress and funding as an early step in implementing the CZMP
- **Setting CZMP Objectives**
The stated objectives for the CZMP (1.6) insufficiently represent community involvement. We recommend adding an objective to build a public-private working and financial relationship between government and community to implement the plan.

f. Other issues

- **Land swap** (4.2). This point needs rewording to emphasise some community support for an **investigation** of land swap as a last resort. (Wording on page 18 is much clearer and should be used here)
- **River dredging** (P17, Table 2). The eastern bank of the river is eroding toward the road, particularly south of the jetty. Dredging in this area would “kill two birds with one stone” by slowing the erosion and using the sand to defend the dune.
- **Temporary Emergency Works** (Appendix 1.6). Using knowledge from the Sand Sourcing Investigation project, why not pilot test using geo-tech sandbagging as temporary emergency works to improve protection until 2018 after which BNS will bury the sand bags
- **Expand the Objectives for the CZMP Report** (1.4)
These objectives should not be only about CVC but also the community.
It is recommended that an additional objective be included such as “To provide clarity, involvement and encouragement for the Woolli community in implementing management actions to realistically protect the village and environment from coastal hazards.”

3.Improving the presentation of the Plan

The following points are offered as ways to improve the clarity and readability of the CZMP document.

- **Why begin with a contentious first sentence** (Summary para 1)?
Disputed photogrammetry may predict recession but long term anecdotal evidence does not. The second paragraph is a better way to start the report.
- **Use more effective wording** (Summary para 3)
Last sentence misses the opportunity to be more accurate and positive.
For example, “BNS may not protect Woolli from a 100-year storm but will from a 50-year storm”
- **Clarify the CZMP Review period** (Summary, Guiding Principle 3)

Change to “Every 10 years or sooner when major factors change eg. Legislation or SLR forecasts)

- **Additional point for the Executive Summary**

The important fact that the CZMP has a maximum life of 10 years (1.3, para 1) should be mentioned in the Exec. Summary