Submission No 90

INQUIRY INTO ADEQUACY OF WATER STORAGES IN NSW

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The Committee,
NSW Legislative Council
Standing Committee on State Development
Inquiry into the adequacy of water storages in NSW

30 August 2012

Submission: Judith M. Melville

Summary

This submission goes directly to the first, fourth and sixth clauses in the Inquiry's term of reference, ***a) the capacity of existing water storages to meet agricultural, urban, industrial and environmental needs***, ***d) proposals for the construction and/or augmentation of water storages in NSW with regard to storage efficiency, engineering feasibility, safety, community support and cost benefit*** and ***f) any other matter relating to the adequacy of water storages in NSW.***

It seeks to address reasons why the Clarence River catchment area on the NSW North Coast should not be considered capable of any further expansion of water storage capacity or considered as a river system capable of future interbasin water transfer.

The submission argues that any further water storage construction/augmentation or water diversion is environmentally unsustainable, economically unviable and not supported by empirical evidence and/or established science.

Background

Many river systems flowing within New South Wales borders, including the Murray-Darling, Murrumbidgee, Lachlan and Snowy, are significantly compromised by existing water storage, diversion and extraction schemes in this state and elsewhere.

The Clarence catchment area river systems are as yet relatively untouched by such water schemes.

The Clarence River rises at Rivertree in New South Wales and flows to the estuary mouth at Yamba-Iluka. It is saline and tidal for approximately one-third of its length, however its main tributaries above the tidal zone are freshwater creeks and rivers.

The catchment area is some 22,700 square kilometres, with land elevations ranging from 0-25 to 1,200-1,600 m above sea level [NSW Dept. of Environment, Climate Change and Water,Northern Rivers Regional Biodiversity Management Plan,April 2010].

The catchment is bounded in the west from Stanthorpe to Glen Innes by the great Dividing Range (Northern Tablelands); by Baldblair, the Doughboy Ranges and The Dorrigo Plateau in the south; and by the Macpherson Ranges, which form part of the

border with Queensland, in the north. The eastern boundaries are defined by coastal ranges from Coffs Harbour to Yamba, where the river enters the ocean and the Richmond Ranges north of Iluka. Generally the catchment is characterised in its western extremities by tableland areas which fall away to the relatively large, flat coastal floodplain [Australian Government, *Natural Water Resources Atlas*,May 2009].

The Clarence catchment falls within two distinct climatic zones, with the temperate inland zone (roughly equating with 19,080 square kilometres) having higher summer and cooler winter temperatures and generally lower rainfall than the sub-tropical coastal zone. This inland zone covers the upper reaches of many of the Clarence River's freshwater tributaries [Land and Water Australia,Research and Development,1999 and CSIRO & Bureau of Rural Sciences & Bureau of Meteorology,2004,2008].

As much by happy historical accident as by considered design the Clarence River and its tributaries are relatively healthy in comparison with other eastern Australia river systems. Nevertheless, the rivers within the Clarence system remain variable and, some bodies of water such as Lake Wooloweyah teeter on a fragile balance [NSW DLWC, Health Rivers Commission, *Independent Inquiry into the Clarence River System*,1999]

The Clarence River catchment has few impediments on natural river water flow within its boundaries. However, major water infrastructure does exist in the form of the 30,000 megalitre Shannon Creek side dam, the 5,600 megalitre Karangi water storage dam holding water piped from the Orara and Nymboida rivers, the 100 megalitre Rushford Road reservoir, the Nymboida River weir and a few remaining irrigation licenses [Clarence Valley Council,North Coast Water business unit,*Regional Water Supply Strategy*,2010].

These water storage/water management facilities are considered adequate for both current population numbers and future population projections.

In 2011 the Clarence River catchment supplied fresh water to an estimated 52,816 residents living in the Clarence Valley local government area and, to another 73, 296 residents in the Coffs Harbour local government area which is located outside the catchment and historically is provided with a significant measure of water security by the Clarence Valley [Clarence Valley Council,*Clarence Valley Economic Monitor*, June 2012 and Coffs Harbour City Council,*Community Profile,*June 2011].

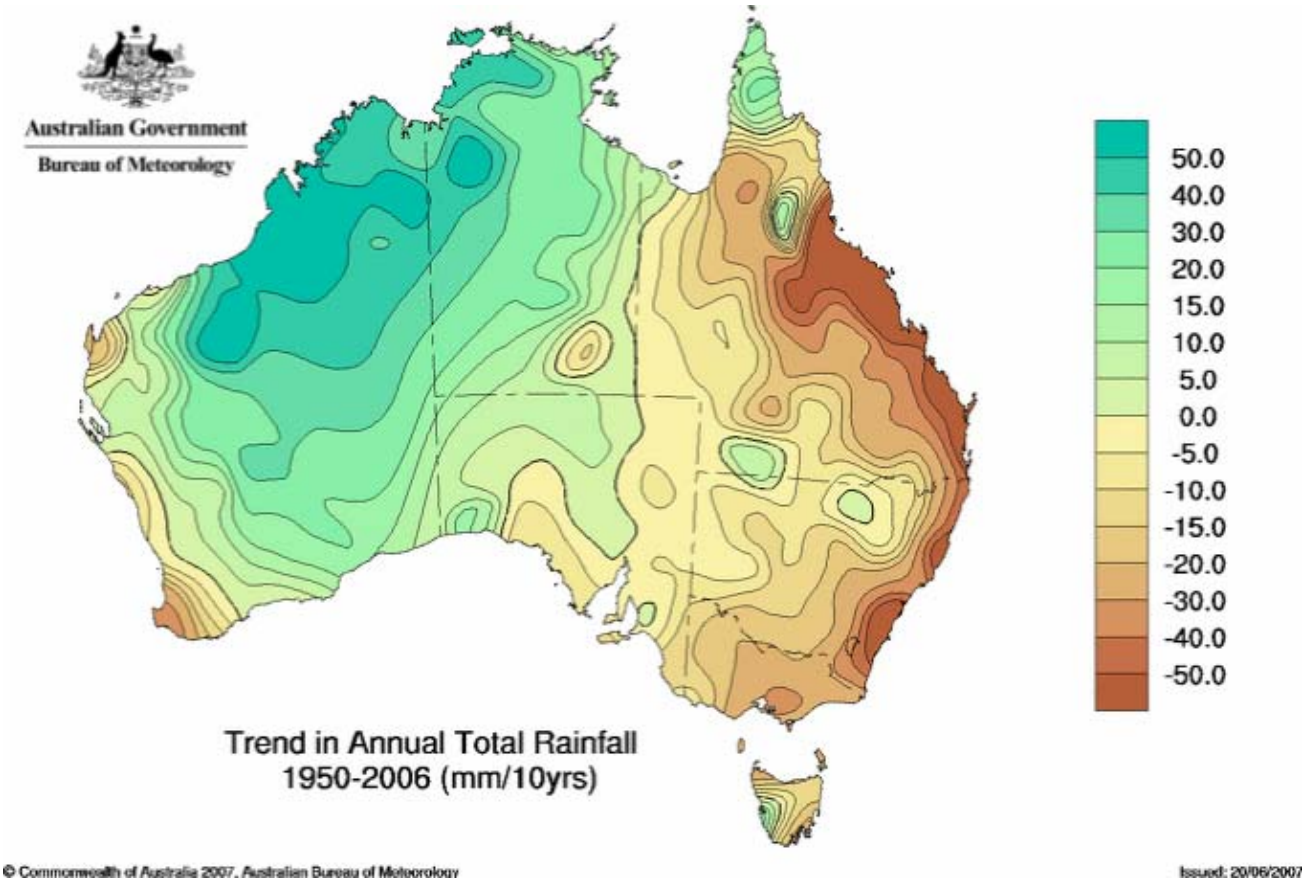
Population growth in the Clarence Valley is expected to stabilise through natural increase and net migration by 2036 and future population growth is expected to be strong in the Coffs Harbour area [Planning NSW, New South Wales *Statistical Local Area Population Projections, 2006-2036,* March 2010].

Clarence Valley local government follows best practice in relation to water extraction and sustainable yield is predicated on an allowable daily volume rather than an annual yield figure [Australian Government, *Natural Water Resources Atlas*,May 2009].

Because rivers within the catchment are highly variable and the call on fresh water resources is constant in a region experiencing sustained population growth, there have been mandatory year round water conservation measures in place since 19 June 2007 [Clarence Valley Council,*Water Restriction Policy for Clarence Valley Local Government Area*,2007].

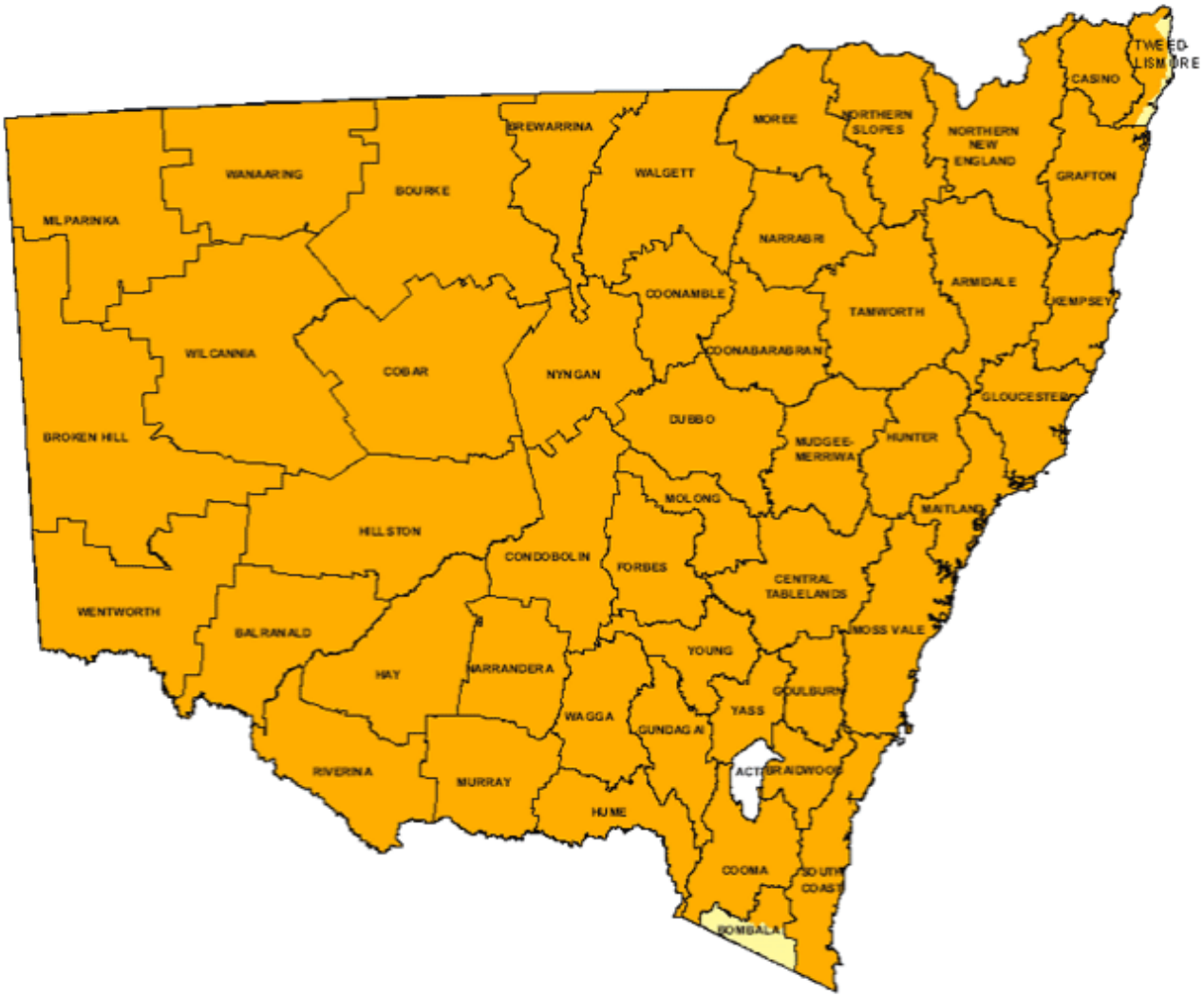
I note that the Lilydale gauge readings (which provide the most accurate flow figures available) indicate that water discharge into the sea is less than two million megalitres per year on average [Clarence Environment Centre, *Inquiry into Additional Water Supplies for South East Queensland - Traveston Crossing Dam*,Submission 214 to Senate RRAT Committee,p.3]

The Clarence River catchment has not been immune from the general drying trend that eastern Australia has experienced in modern times.



Areas within the catchment experienced marginal to severe drought conditions in October-November 2000, June-December 2002, January-November 2003, June-December 2004, January-November 2005 and November 2009 [NSW Dept. of Primary Industry,Industry and Investment,archived drought maps].

It is not unusual to find the Clarence catchment mirroring drought conditions elsewhere in New South Wales and to the same degree, as seen in the drought map for April 2003 below:



It is my understanding that, when initially approached by the National Water Commission in 2006-07, the NSW Dept. of Natural Resources advised that there was no unallocated water for interbasin transfer. All flow being apportioned to the environment, basic land-holder rights, stock, irrigators, industry or town water supply needs.[The Daily Examiner,24 April 2007,*Federal Govt ignored advice about lack of Clarence water*,p.5]

At this point I note that Dr. Blackmore has commented in relation to any Clarence River water diversion: *Not worth a candle....You could not get it there on the back of a flood because of the diversion capacity across....If I am going to run 1,000 megalitres down the bottom of the Darling, half of it is going to evaporate, and 500 megalitres down the bottom of the Darling - you may as well be whistling in the dark, basically*. [Blackmore,Dr. D.J.,Chief Executive,Murray Darling Basin Commission, in Senate Environment, Communications, Information Technology and The Arts References Committee,sub-committee transcript,23 May 2002].

The Clarence River catchment is also the natural habitat of the endangered Eastern Freshwater or Clarence River Cod which has protected status and, is now thought to be extinct elsewhere in Australia [Commonwealth Dept. of Sustainability, Environment, Water, Population and Communities,February 2010]. Environmentally sustainable freshwater flows and unimpeded movement are significant factors in the survival of this species.

There are other factors which also need to be considered whenever the Clarence River catchment area is considered – these are the regional economy, and conservation/cultural/aesthetic values and community response

Regional Economy

* The Clarence Valley Gross Regional Product (GRP) was $1.9 billion in 2010-11 and annual growth in real GRP of 4.9%, significantly higher than the average for New South Wales (2.2%)

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* The Clarence Valley economy is heavily underpinned by agriculture, commercial fishing, forestry and tourism.

* Clarence agricultural commodities have an estimated annual value of $69.6 million. The bulk of the catchment area falls within the 100km wide New South Wales coastal strip, which historically supplies approximately 20 per cent of the state's agricultural product. This coastal strip is likely to increase in importance, due to long-term difficulties experienced elsewhere in Australia with regard to reliable water supply for food production.

* In 2010 Clarence Valley Council estimated that the commercial fishing industry was worth over $92 million and generated over 430 jobs. Commercial fishing fleets are sited at Iluka and Yamba on the Clarence River as ocean fish and crustacean species both breed and feed in the Clarence River estuary system.

* Total agricultural value remains fairly consistent over time and the lucrative annual prawn catch in the Clarence River estuary is from one of only four NSW authorized estuary sites.

* Bulk product transport for forestry-based industry is partly dependent on coastal shipping loading timber from Clarence River docks.

* Tourism, including river-based activities, in the Clarence Valley had an estimated annual value of $261million in 2011, based on four year average annual calculations. Recreational fishing is a substantial factor of the local tourism industry and contributes significantly to the economic base of Yamba, Iluka and the Clarence Coast generally.

Note:
The dollar values stated above cover various periods from 2000-20012 and can be verified in the Commonwealth's own study of April 2005, "Northern Rivers and North Coast NSW Region: a regional profile" [C'wealth Dept. of Transport and Regional Services], Clarence Valley Council Clarence Valley Economic Monitor (June 2012), Coffs Harbour City Council,Community Profile (June 2011) and Destination NSW (DNSW) a NSW Government statutory authority.

Conservation, cultural and esthetic values

* Two areas within the Clarence River catchment form part of the 1986 UNESCO World Heritage listing Gondwana Rainforests of Australia in the vicinity of Clarence River Gorge and IIuka [Australian Government,Department of Sustainability, Environment, Water, Population and Communities,2010]

* The Clarence River is the subject of a registered Native Title claim by *Yaegl, Bundjalung, Gumbaynggir: - the application area is primarily the waters of the Clarence River below the bridge at Harwood and estuarine waters to the river mouth including the water within the breakwalls and the Wooloweyah Estuary. It also includes the river banks, beds, shoals, sands, reefs and tributaries.* [National Native Title Tribunal, 2001].

* A significant Aboriginal mythological site, *Dirrangun* reef, is situated in the mouth of the Clarence River [NSW Dept. of Planning, Heritage Branch,File H04/00094-*Dirrangun's Dreaming*, 2002 & Yaegl Elder Della Walker Snr.(deceased), 1999].

* Ulgundahi & Corolama Islands in the lower Clarence River (SHI 01721 Gazetted 2004) have been listed as of State significance. [Maclean Shire Council, *Community Based Heritage Study*,2006].

Past community response

An ABC Rural radio program – **Clarence River Stories** broadcast in 2007 revealed the following perspectives on the issue:

"It's a beautiful river and I've seen the problems they've had in the Murray Darling and other dammed rivers overseas. Why create a problem and then have to try and fix it afterwards." **Tourism & canoeing operator**

"I think in a normal ordinary season, the river is flat out sustaining itself. I think when they do their sums they'll find that there's not enough water there." **Beef cattle farmer**

At a weekly elders meeting in the riverside community of Maclean, there were cries of *"leave the water alone, don't take the water."* When the issue came up for discussion among Local Aboriginal elders.

A Clarence Valley Council spokesperson said *"Council will oppose any plans to take water from the Clarence River to pipe into Queensland."*

The Mayor said *"the proposal will damage the health of the river, and residents will fight to protect their waterway."* **Clarence Valley Council**

"When we flood, no-one likes the nuisance value and we all feel sorry for the people who actually have damage, but when it comes through here, you know it's keeping your navigation channels open ... that's critical for the fishing fleet and to keep the tourist yachts visiting Yamba." **Aboriginal community member**

“Floods are a powerful feature in the catchment… that’s the time when you think yes you could grab some of that water for the western farmers but if you talk to the fisherman further down the river they really need those floods. Flood events are an important part of flushing the river ecosystem and keeping the waterway healthy.” **Grazier and sawmill operator**

“Over the years as a generational fisherman I’ve seen the river silt up considerably... places where you can’t even take boats anymore. So the more water that you do take away in natural flooding is going to lead to more siltation of the river.” **Local professional fisherman**

“The sugar industry would get some benefit from holding back 25 per cent of the floodwater. Fisherman could still rely on 75 per cent of the flow. That wouldn’t ruin their industry.” ***Cane farmer***

“People want to eat seafood. Doctors advise us to eat seafood. Thus it is critical the we understand how important freshwater flows are for rivers and for sustaining healthy fish habitats and populations.

Water that flows freely down rivers and out to sea should not be seen as a wasted resource, it is absolutely vital for the health of the whole coastal ecosystem.” **OceanWatch Australia**……

The Clarence Valley Mayor said if there was one issue that united the 51,000 residents living in the valley it was the ‘mighty Clarence River’. *“We’ll be standing shoulder to shoulder to stop the proposals going ahead*,” he said. The Mayor expected there would be job losses in the region’s fishing industry if the river was dammed.

Additionally, an industry representative for the Clarence River Professional Fishermen’s Association said he feared some or many of the region’s 200 professional fishermen could lose their jobs if the river was dammed. *The Clarence River is the lifeblood of our industry and there could be severe negative impacts from interfering with the natural flows of the river.”* [*Case Study: 2. Land and Water Management Issues in the Lower Clarence River Catchment*,syd-srv12.ezyreg.com/~oceanwa/wp-content/uploads/2010/02/Case-Study-2-Land-and-Water-Management-Clarence-3.pdf]

[*The Daily Examiner* newspaper 2007 community campaign banner]

CONCLUSION

Any recommendation to increase water storage capacity, investigate further water extraction or water diversion from the Clarence River catchment cannot be supported on environmental or economic grounds and, is not supported by empirical evidence and/or established science. This is not an exhaustive list of concerns.

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