

**Submission
No 86**

INQUIRY INTO WATER AUGMENTATION

Organisation: Clarence Valley Council

Date received: 16 August 2016



10 August 2016

Reference: DWS1682591
Contact: Greg Mashiah

The Director
General Purpose Standing Committee No 5
Legislative Council
Parliament House
Macquarie Street
SYDNEY NSW 2000

Dear Sir

Inquiry into Water Augmentation in Rural and Regional New South Wales - Submission

Thank you for the opportunity for Council to make a submission to the above enquiry. Clarence Valley Council is located on the north coast of NSW and contains most of the Clarence River catchment within its area. The Clarence River is the largest coastal river in NSW. Council is a Local Water Utility (LWU) responsible for sewer and water services to urban area and also provides bulk water to the adjoining Coffs Harbour City Council. Clarence Valley Council is also responsible for floodplain management.

Council's submission responds to three items in the terms of reference which are considered relevant to Council's operations:

1b) Examine the suitability of existing New South Wales water storages and any future schemes for augmentation of water supply for New South Wales, including the potential for aquifer discharge

Clarence Valley and its neighbouring Coffs Harbour City Council have jointly developed a Regional Water Supply (RWS) scheme to provide water security to residents until at least the year 2046. The RWS comprise:

- A "non build" element of water efficiency measures, which commenced in 1997 and is implemented through the joint Water Efficiency Strategic Plan (<http://www.clarence.nsw.gov.au/page.asp?f=RES-UHJ-43-64-30>), and
- A "build" element, which comprises a pipeline linking the two Council water supplies which was completed in 2004 and construction of a 30,000ML off-creek storage at Shannon Creek which was completed in 2009. The Shannon Creek Dam storage is designed for future raising to 75,000ML capacity to service demand beyond 2046. The storage is "transparent" to its catchment in that all runoff from the catchment is required to be released to match the pre-storage hydrologic.

The RWS project, which was recognised with multiple industry awards including the prestigious International Water Association's Asia-Pacific *Project Innovation Award* in the planning category, demonstrates how regional Local Water Utilities can jointly plan and deliver water infrastructure to meet future needs including provision of suitable water storages.

One significant concern for Council is that, while the RWS storage has been designed to be augmented to 75,000ML to provide capacity for development beyond 2046, future legislative changes may adversely impact this option. It is therefore requested that the Committee consider this issue.

1d) examine the 50 year flood history in New South Wales, particularly in northern coastal New South Wales, including the financial and human cost.

Since 1966 the Clarence River has experienced 29 floods which exceeded the "minor" flood level at the Prince Street gauge in Grafton (2.10m), and of those 17 were classified as "major" floods (>5.40m). Four floods in a single year were experienced in both 1974 and 1976, and three floods in a single year were experienced in 1967 and 2013.

The town of Grafton is protected by a flood levee which provides protection up to approximately the 5% Average Exceedance Probability (AEP) event, and the town of Maclean is protected by a levee which provides protection up to approximately the 2% AEP event. Since the Grafton and Maclean levees were constructed in the 1970s they have not been overtopped, although in January 2013 at Grafton the flood height was equal to the top of the levee, requiring evacuation of a small area of the town.

In the March 2001 and May 2009 floods, evacuation of all of Grafton was ordered due to uncertainty about whether the flood levee would be overtopped if the predicted flood heights were reached, and how the flood would behave once the levee was overtopped. As well as the evacuation having a significant financial and social cost for residents, as the levees were not overtopped it also increases future risk of people not evacuating when ordered. In 2011 Council completed a detailed flood levee overtopping study which included extensive 2-D computer modelling. The flood levee overtopping study is considered to have given excellent value for money as in 2013 it enabled evacuation to be confined to the immediate affected area.

A significant human cost of flooding on all residents is post flood clean-up. To reduce the impact on residents Council generally collects flood damaged items which are put on the kerbside by residents, waives its tip fees for disposal of flood damaged items and also offers residents affected by flood mud a rebate on their water bills. Council also assisted with the provision of the Flood Recovery Centre for residents, which provided a "one stop shop" for flood impacted residents

A significant issue for Council is the increasingly limited and narrow interpretation of Natural Disaster Relief and Recovery Arrangements (NDRRA), which have left the full cost of much essential infrastructure flood damage repair with Council. As one example, a flood levee damaged in the 2013 flood incurred repair costs of \$710,000 but only \$98,625 funding was received for this item. The apparent basis for the reduced funding was that under the NDRRA the works were assessed as "riverbank" works; notwithstanding that detailed geotechnical and engineering reports supported Council's position that the riverbank formed an integral part of the levee at this location and should therefore have qualified as essential public infrastructure. It is requested that as part of this item of the terms of reference the committee consider the NDRRA arrangements as the current interpretation results in cost shifting of repairs to essential public infrastructure to Council.

There are financial and human costs of flooding beyond Council's costs. Financial costs are common for industries such as agricultural, transport and tourism. The

financial impacts on these industries has been repeatedly mentioned after the three recent major flood experiences in the Clarence Valley in 2009, 2011 and 2013. Agricultural financial impacts are usually associated with the loss of crops, livestock, fences, machinery, etc. Transport impacts are associated with the closure of key transport routes resulting in the very long truck 'parking' areas either side of locations such as Grafton. The tourism industry impacts are both short-term (cancellations of bookings) and longer term with potential of a tarnished tourism image. Regarding human costs, a recurring theme in the post flood recovery is mental health problems related to flooding. The NSW State Government established Clarence Valley Flood Recovery Committees after the 2009 and 2013 floods which comprised representatives from state government agencies and Council, and the final reports from these Committees should assist the Inquiry with further information on the financial and human cost of flooding.

1e) examine technologies available to mitigate flood damage, including diversion systems, and the scope of infrastructure needed to support water augmentation, by diversion, for rural and regional New South Wales

The diversion of the Clarence to west of the Great Dividing Range has been suggested by some people as a possible way that flood damage could be mitigated, with a supposed benefit of providing water for western areas. Council has considered this issue and its position has consistently been that diversion of the Clarence is opposed, as summarised by Council resolution 10.017/10 at its meeting of 16 November 2010:

The Council again register its strong opposition to any plans to divert waters out of the Clarence catchment.

Council's position in this matter has not changed, and Council considers that any proposal to divert the Clarence River cannot be justified from an economic, environmental or social perspective.

If you require further information please contact Council's Manager Water Cycle, Mr Greg Mashiah, telephone