## INQUIRY INTO WATER AUGMENTATION

Organisation: Date received: Central NSW Councils 14 August 2016

# Inquiry into the augmentation of water supply for rural and regional New South Wales

August 2016



Centroc's Mission is to be recognised as the lead organisation advocating on agreed regional positions and priorities for Central NSW whilst providing a forum for facilitating regional co-operation and sharing of knowledge, expertise and resources; effectively nurturing sustainable investment and infrastructure development.

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#### 12 August 2016

Reference bw:vp 081614 Enquiries: Ms J Bennett: 0428 690 935

The Hon Robert Brown MLC Chairman General Purpose Standing Committee No. 5 Parliament House Macquarie Street Sydney NSW 2000

Dear Mr Brown,

#### Re: Inquiry into the augmentation of water supply for rural and regional New South Wales

Central NSW Councils (Centroc) represents over 243,000 people covering an area of more than 72,500sq kms comprising the Local Government Areas of Bathurst, Blayney, Cabonne, Cowra, Forbes, Hilltops, Lachlan, Lithgow, Mid-Western, Oberon, Orange, Parkes, Upper Lachlan, Weddin, and Central Tablelands Water.

It is about the same size as Tasmania with half the population and a similar GDP.

Centroc's vision is to be recognised as vital to the sustainable future of NSW and Australia.

Its mission is to be recognised as the lead organisation advocating on agreed regional positions and priorities for Central NSW whilst providing a forum for facilitating regional cooperation and sharing of knowledge, expertise and resources.

Centroc has two core objectives:

- Regional Sustainability Encourage and nurture suitable investment and infrastructure development throughout the region and support members in their action to seek from Governments financial assistance, legislative and/or policy changes and additional resources required by the Region.
- Regional Cooperation and Resource Sharing Contribute to measurable improvement in the operational efficiency and effectiveness of Member Councils through facilitation of the sharing of knowledge, expertise and resources and, where appropriate, the aggregation of demand and buying power.



Centroc was selected as one of five regional pilot Joint Organisations to assist the NSW Government strengthen and reform local government. The Centroc Board is made up of the 30 Mayors and General Managers of its member Councils who determine priority for the region. These priorities are then progressed via sponsoring Councils. For more advice on Centroc programming and priorities, please go to our website <a href="http://www.centroc.com.au">http://www.centroc.com.au</a>

Centroc has a proud track record in devising and delivering innovative cutting-edge regional programming. It succeeds through the good will and industry of its members and staff working collaboratively to the benefit of the region and its communities.

Water security for the region's urban centres including the need for a new storage in the Lachlan catchment is one of the highest priorities for Central NSW Councils with long term water security vital to meet community needs and underpin confidence for continued investment and growth in the region. Water for urban use is crucial for the sustainability of the region's towns.

As a result Centroc has undertaken extensive work on urban water security over the past decade completing the National award winning Centroc Water Security Study (CWSS) in 2009 which identified a range of water security solutions for the Central NSW region. Further detail is provided elsewhere in this submission.

Following on from recommendations in the CWSS, Centroc members committed to a unified approach to the sustainable delivery of water supply and sewerage services and to achieve and maintain Best Practice forming the Centroc Water Utilities Alliance in 2009.

The Alliance provides support to member Councils in meeting Best Practice in water and sewer management and in achieving cost savings and efficiencies including in asset management and workforce training and development. It does this through a regional procurement program, mentoring, sharing of knowledge and resource sharing. Centroc also has a strong track record in grant acquisition and in the management of regional grant funded activities and is a tireless advocate for water security for the region.

Highlights of Centroc's and its member's strategic regional water planning work is summarised as follows:

- National Award Winning Centroc Water Security Study;
- Innovative state-of-the-art water security solutions including the Orange Stormwater harvesting scheme and other innovative water and sewer management projects including Bathurst's Manganese Removal Project;
- Over \$3M in State and Federal Funding secured since 2009 including \$2.2M in Federal funding for the CWUA's Nexus between Water and Energy Project a \$4.5M project to reduce energy used at the region's pump stations including a Water Loss Management Toolkit rolled out to Councils throughout NSW;
- A collaborative Water Utilities Alliance comprising 15 member Councils delivering cost savings and efficiencies for members recognised by the Productivity Commission;

- Strategic Regional water planning through the completion of Regional IWCM, Drought Management Plan, Demand Management Plan and the Centroc Water Security Study;
- Regional Priority Water Infrastructure Plan reflecting the priority for the region of large transformative water security projects;
- A Centroc Operators Group providing capacity building for operators recognised as industry leaders at the Water Industry Operators Association NSW Conference in 2016;
- A Working Party assisting members to implement Drinking Water Quality Management Plans;
- Delivery of Water Sampling and Australian Drinking Water Guideline training program for over 60 of the region's water operators; and
- Workforce Development Project for Water employees piloted by 5 CWUA member Councils identifying gaps between the current and future workforce needs and proposing actions to address these.

#### **RESPONSE TO ISSUES ON WHICH THE STANDING COMMITTEE No.5 SEEKS COMMENT**

Firstly, we welcome the *Inquiry into the augmentation of water supply for rural and regional New South Wales* and thank you for the opportunity to provide feedback.

We understand the terms of reference to be;

- 1. That General Purpose Standing Committee No. 5 inquire into and report on the performance or effectiveness of the NSW government agencies that are responsible for the augmentation of water supply for rural and regional New South Wales, and in particular:
  - a) investigate the requirement for a water equation (demand and supply out to the middle of this century) for rural and regional New South Wales
  - b) 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 recharge
  - c) review the NSW Government's response to the recommendations of the June 2013 report by the Standing Committee on State Development on the adequacy of water storages in New South Wales
  - d) examine the 50 year flood history in New South Wales, particularly in northern coastal New South Wales, including the financial and human cost
  - e) 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

- *f) examine social, economic and environmental aspects of water management practices in New South Wales and international jurisdictions, including the following case studies:* 
  - *i.* Broken Hill town water supply/Menindee Lakes system
  - ii. South Western NSW water management practices
  - *iii.* North Western NSW water management practices
- g) the efficiency and sustainability of environmental water being managed by different State and Federal Government departments and agencies
- *h) the management, appropriateness, efficiency and reporting of:* 
  - *i. i. inter-valley transfers*
  - *ii.* conveyance and loss water
  - iii. carryover
  - iv. the management and reporting of the water market, and
- i) any other related matter.

Please be aware that individual Councils may make separate submissions relating to the above terms of reference.

As indicated in the preface to this submission, Centroc has done extensive work on urban water security and regional water planning from the perspective of Local Government management of Local Water Utilities and bases specific comments on the matters detailed in the terms of reference on this work.

#### **Specific Comments**

With specific reference to terms of reference Centroc make the following comments.

a) investigate the requirement for a water equation (demand and supply out to the middle of this century) for rural and regional New South Wales.

#### Centroc Response

In response to this term of reference, a water equation is taken to mean a Water Balance Equation used to examine the cycling of water through a system where this equation considers precipitation, runoff, evapotranspiration and change in storage either in soil or bedrock.

A Water Balance Equation can be looked at over a variety of spatial and temporal scales, from short rainfall events at the hill slope scale to annual hydrologic regimes for an entire catchment. Various studies of water supply security undertaken previously in the Lachlan Valley have focussed on single purpose solutions, in this case town water supply, rather than a comprehensive review of all options providing the potential for multi-purpose solutions.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Water NSW Water Security for Regions: Belubula and Lachlan River Dam Investigation Report December 2014

Centroc's extensive work on water security to date has focussed on town water supply and has typically been "outside" the State Water system.

In 2009 Centroc completed the Centroc Water Security Study (CWSS) using a stochastic hydrology model. The study identified a range of potential measures to improve urban water security across the Central NSW region- see details in 1b. Feedback from State Water when the CWSS was completed was that it did not want the State's Water Sharing Plans, which had taken some time to negotiate, to be impacted.

Since then Centroc has undertaken regional water planning completing Regional Demand, Drought, Integrated Water Cycle Management (IWCM) and Strategic Business Planning through its regionally collaborative Centroc Water Utilities Alliance (CWUA).

Centroc has long advocated to the State Government for a review of the CWSS with DPI Water, NSW Water and other key stakeholders at the table. This is seen as essential as changes in model outputs in recent years attempt to accurately reflect the impacts of climate change on catchment yields which could result in significantly less secure water supplies than the original report.

Compounding the need for a catchment wide analysis of water resources is that currently there would appear to be a number of planning processes with legislative requirements for water across multiple agencies including, at the State level, DPI Water, the Natural Resource Commission and Water NSW and for this region, the Murray Darling Basin Authority at the Federal level. The current water resource planning processes are confusing and not integrated. These are summarised in the table provided as Attachment 1.

As one of only five regional pilot Joint Organisations to assist the NSW Government strengthen and reform Local Government and drawing on its extensive work in water security, Centroc is advocating to work in partnership with Government to co-design a regional water planning framework that takes into consideration water supply and demand options for the Local Water Utilities (LWUs) across the catchment as a whole and most importantly that aligns Local, Regional, State and Federal planning processes.

Through recent consultations with the State Government over a proposed new storage site in the Lachlan catchment on the Belubula River (refer to detail in response to 1b) Centroc has advocated for a review of the CWSS with urban water security as the key focus included in any scoping or feasibility studies.

Key to a review of the CWSS and the development of Integrated Water Cycle Management Plans required under DPI Water's Best Practice Management Framework for Water and Sewer is the modelling to determine secure yield-based on how the climate change impacts have affected secure yield assessments.

DPI Water has been working in this regard for some time and it is understood that draft *Guidelines on Assuring Future Urban Water Security* are available for use but have not yet been formally adopted.

Most recent advice on the status of hydrological modelling has come from Water NSW (25 July) with regard to preliminary work for the feasibility study for the proposed new storage site as follows:

Work on refining a computer model to accurately assess the hydrology of the Lachlan Valley is progressing. The model will use historic river and climate data combined with data from previous studies into rural and town water supply as well as current and future demands to be able to assess the performance of potential water security options.

The model builds on previous modelling to provide the most sophisticated hydrological assessment completed for the region to date. Outputs from the model can then be used to optimize planning of operations for the options considered.

Centroc has a history of working collaboratively with key stakeholders across the catchment to ensure an appropriate balance is struck between the needs of towns, industry, agriculture and the environment.

To this end, on 25 November 2014 representatives of Centroc, the Belubula Landholders Association and Lachlan Valley Water met in Parkes to agree a united position on a proposed new storage in the Lachlan Catchment. The three organisations agreed:

- The prosperity of our region is closely tied to both healthy towns and a successful agricultural sector.
- Water security is limiting economic development in the towns, industry, mining and agricultural sectors of the Lachlan Valley.
- Investment in additional water storage to provide water security improvements is supported by all three organisations.
- Options that offer substantive improvements for both urban water security and agricultural water security should be supported.
- Failure of urban water supplies is socially unacceptable.

Further meetings of these stakeholders are in planning to agree a position on regional water planning that takes into consideration the balance between social, economic and environmental water needs across the Lachlan catchment.

On the basis of this and its extensive work on water security, Centroc has met with and, on his request, written to Minister Niall Blair, Minister for Primary Industries and Lands and Water seeking funding for a potential project in the Central NSW region that could pilot both the water security modelling and strategic approach to regional water planning in NSW. A response to this is pending. Central NSW Councils have demonstrated their capability to unite, collaborate and work towards a common goal. Our collective efforts have successfully developed a long-term sustainable water supply strategy which significantly improves the water supply security of our region whilst balancing social, environmental and economic outcomes.

Without a holistic, catchment wide review of water resources in the Lachlan Valley it is not possible at this time to determine the requirement for a water balance equation for the Central NSW region.

We look forward to working with the State Government and key stakeholders to undertake a comprehensive analysis of water supply security and demand for the longer term growth and sustainability of the region and its communities.



Centroc representatives meet with State Water on scoping for a new storage- Forbes November 2014

b) 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 recharge.

#### **Centroc Response**

Water security has historically been a significant issue in the Lachlan Valley with drought having major impacts on both urban and rural communities of the region over the past century.

The Millennium Drought exposed the lack of water security in the whole Lachlan Valley supplied from Wyangala Dam. Many of the region's cities and towns were forced to impose severe restrictions on domestic, commercial and industrial uses. Water dependent agricultural and mining businesses were also significantly impacted.

Trends in the temporary trade in the water market suggest that it is unlikely that this part of the regional economy will recover without a significant improvement in water security for high value agricultural investments.<sup>2</sup>

In response increased storage in the region has been considered many times in the past. Most notably the Centroc Water Security Study (CWSS) identified a range of potential measures to

<sup>&</sup>lt;sup>2</sup> Water NSW Water Security for Regions: Belubula and Lachlan River Dam Investigation Report December 2014

improve urban water security including the need for additional storage. The study had two components:

- 1: An audit of existing infrastructure for bulk water supply; and
- 2: An options paper for improving water supply security.

The CWSS resulted in alarming findings that 29 communities in the Central NSW region were at risk and required substantial improvements to their water security. It recommended the development of key infrastructure in the region including pipelines to Lake Cargelligo and Orange, which have since been completed, with more detailed investigation, survey and design focussed on smaller areas of the region where specific problems have been identified underway.

In particular the CWSS found that security of water supply could not be achieved in the Lachlan catchment through demand management initiatives alone but requires an integrated program of water conservation and demand management measures, coupled with new and upgraded water supply and storage infrastructure particularly high in the Lachlan catchment.

For further advice on the Centroc Water Security Study:

http://www.centroc.com.au/publications/water-infrastructure/



Lake Cargelligo in the grip of the Millennium Drought – January 2010

Since its inception in 2009, the Centroc Water Utilities Alliance (CWUA) has continued to build on the work of the CWSS completing regional Demand, Drought and Integrated Water Cycle Management Plans.

While Centroc member Councils continue to implement demand management strategies both locally and regionally, the modelling undertaken through the CWSS and the Regional Demand Management Plan both highlight the lack of security of supply in the Central NSW region.

A number of water security infrastructure projects included in the CWSS such as the Orange -Macquarie River Pipeline (as a short term emergency solution) and the Merri-abba Pipeline at Lake Cargelligo have now been completed and work on others such as the Central Tablelands Water (CTW) to Orange and Orange to Molong pipelines are partially funded and underway. There are, however, many towns in the region including Oberon and Lithgow in the Macquarie catchment and the Lachlan catchment towns of Boorowa, Parkes, Forbes, Condobolin and Lake Cargelligo that still require water security improvements to cater for the new range of statistically generated extreme climatic events.

In the CWSS Oberon and Lithgow were highlighted as towns requiring water security improvements. While supported by recommendations in the Infrastructure NSW *First Things First* Strategy, advice from Water NSW has been that additional storage on the Fish River has been re-prioritised since the decommissioning of the Delta power station at Wallerawang.

Other priority water security infrastructure needs have been identified at Boorowa. Water restrictions ordinarily reach level 4 and last between 4 to 6 months every summer depending on summer rainfall levels. Boorowa are seeking funding to resolve their ongoing security issues with a pipeline to Goldenfields Water County Council network.

Lachlan, Parkes and Forbes Shire Councils have all been proactive in future proofing water security for their towns through a range of projects drawing on a number of different water sources including dams, river, bores and recycled water. Despite this work there continues to be concerns about the adequacy of supply. In addition Lachlan Shire Council is concerned that the environmental water needs of Lake Cargelligo are considered in the water sharing process.

For detailed advice regarding water security projects:

http://www.parkes.nsw.gov.au/works-services/major-projects/water-security http://www.forbes.nsw.gov.au/council/news/securing-our-water-supply.aspx http://www.lachlan.nsw.gov.au/environment/water-sewer.aspx



Refurbishment of Bore 8 on the Lachlan River-Forbes

Despite the extensive work undertaken in the Centroc region, currently the need for another storage, particularly one high in the Lachlan catchment remains of the highest priority for the Centroc Board with water security currently limiting economic development in the towns, industry, mining and agricultural sectors of the Lachlan Valley.

A number of potential sites for additional storage in the Lachlan Valley to provide improved water security for the region have been proposed over the years. The CWSS recommended an increase of at least 22GL at Lake Rowlands, a dam operated by Central Tablelands Water on a tributary of the Belubula River. Planning and advocacy for this has been underway for some time though has been overtaken by more recent proposals for a new storage on the Belubula River.



A study by Central Tablelands Water in 2013 concluded that construction of a larger dam on the Belubula that might meet more water needs would be a better option when compared to enlargement of Lake Rowlands. This study concluded that the proposed Needles Dam site on the Belubula River provides a better location for constructing a dam for the expenditure involved.<sup>3</sup>

Subsequently the 2014-2015 NSW Budget announced \$1M in funding for scoping and feasibility studies including environmental, geotechnical and preliminary design work for the construction of a new dam on the Belubula River. In late 2014 the NSW Government commissioned Water NSW to undertake an investigation into potential storages in the Lachlan Valley, including the Belubula River. The high level *Belubula and Lachlan River Dam Investigation* took into account economic, social and environmental factors in its assessment of sites.

The Water *NSW Water Security for Regions: Belubula and Lachlan River Dam Investigation Report* December 2014 identified Cranky Rock as the potential site for further investigation of up a large dam of up to 700 gigalitres.

<sup>&</sup>lt;sup>3</sup> Water NSW Water Security for Regions: Belubula and Lachlan River Dam Investigation Report December 2014

Chosen from 15 sites investigated in the Belubula and Lachlan catchments, including the Needles, a dam at Cranky Rock has the potential to enhance regional water security catering for future population growth in the region while also helping local communities improve agricultural productivity and combat drought conditions.

It has been suggested that if the new dam went ahead it would free up water currently required for irrigation from the existing Carcoar Dam and if linked to Lake Rowlands and the Central Tablelands network would extend the network providing back-up drought supplies and secure water to a number of towns beyond the current network. Concerns have been raised previously, however, regarding licence entitlements attached to Carcoar Dam and whether these would remain with Carcoar Dam or be transferred to the new dam.

The State Government has committed a further \$2M in the 2015-2016 Budget for further detailed feasibility studies of the Cranky Rock site including in-field investigations and a cost-benefit analysis. For further detailed advice go to: http://www.waternsw.com.au/projects/belubula



Map of Belubula River System

Centroc has welcomed the State Government's commitment to investigation of a new storage in the Lachlan catchment and of its historic funding of \$39.7M for the construction of two pipelines (the CTW to Orange and Orange to Molong pipelines) that will provide a means to flow water in both directions between the Macquarie and Lachlan catchments to offset dry localised conditions.

The current focus on the proposed dam project and the historic investment by the State Government in transformative water security projects in regional NSW has served to highlight the urgent need for Centroc to update the CWSS to ensure an up to date understanding of the water resources needs of its urban communities and the security of these supplies. This is particularly the case as changes in model outputs in recent years attempt to accurately reflect the impacts of climate change on catchment yields which could result in significantly less secure water supplies than the original report. Centroc advocates that as part of any scoping or feasibility studies for a new storage in the Lachlan catchment, a review of the CWSS with urban water security as the key focus must be undertaken. In particular, an assessment of the impact of a new dam on the operation of Lake Rowlands and Carcoar Dam in relation to urban water security in the region must be undertaken.

As detailed in the *Water Security for Regions: Belubula and Lachlan River Dam Investigation Report* - December 2014, the security for water supply is a function of the available water resources and the timing and volume of demand for water. Demand for water is also subject to an access regime, which sets priorities for various types of demand (i.e. environmental water, town water, high security and general purpose licences).

Of particular concern to Centroc is that while urban water represents only 2% of overall usage and could easily be overlooked, this 2% is essential to meet community needs and underpin confidence for continued investment and growth in the region. Given this, Centroc has long advocated for a need to quarantine town water supplies to ensure that, as was the case in the grip of the millennium drought, communities do not find themselves faced with the prospect of hospital closure or the need to cart water to supply the needs of an entire township at an exorbitant cost. Prior to the June rains, Boorowa was weeks away from the prospect of water carting.

http://www.abc.net.au/news/2016-03-01/water-may-have-to-be-carted-as-boorowa-faces-severe-shortage/7209476

As there is no market for town water supplies, it is not a simple exercise to determine the economic value of improving water security to towns. However, investments in ensuring water security for towns that have been made in the Central NSW region over the past 5 years have varied from \$850/ML security improvement to \$11,000/ML of security improvement. Costs are for capital and operation, discounted over time.<sup>4</sup>

Irrespective of this, Central NSW Councils, the Belubula Landholders Association and Lachlan Valley Water agree that failure of urban water supplies is socially unacceptable.

Lack of water security for both current and planned future consumptive users sourcing water from the Lachlan Valley is limiting economic growth. Market information and stakeholder feedback provided in *Belubula and Lachlan River Dam Investigation Report* provides the following evidence of the issue:

- Severe restrictions have been in place on town water use during the drought;
- History of long periods of low or no general security agricultural water availability and high security water has been restricted;
- Depression of agricultural economy of the region as evidenced in the trading of licences and lack of investment;
- Limitations on the potential of mining industry in the region. See advice in 1 regarding the potential Kings Plain Mine;

<sup>&</sup>lt;sup>4</sup> Water NSW Water Security for Regions: Belubula and Lachlan River Dam Investigation Report December 2014

 Consumptive extraction licences have been purchased to protect water for the environment, reducing the water available for consumptive water users.<sup>5</sup>

The Centroc Board commends Water NSW for consulting with Local Government and other key stakeholders on the potential site for a new dam and encourages further engagement in this way through the inclusion of these stakeholders in the decision making processes relating to storage investments in the region going forward.

Above all, with the extensive work that has been done in the region on water security, Centroc wants to be part of evaluations and the decision making processes relating to priority water infrastructure funding in the Central NSW region where they impact on the water security of the region, particularly of its urban centres.

Centroc member Councils have worked collaboratively for many years on water security solutions at a regional level and have extensive knowledge of water resources and security of supplies.

As one of five regional pilot Joint Organisations (JO) to assist the NSW Government strengthen and reform Local Government (the only JO with a Water Utilities Alliance), a strong track record in implementing complex regional projects and maturity in water security planning, Centroc is offering to work with the State government jointly to deliver an updated water security study gifted to the State as a pilot for other regions.

Centroc has written to the Minister seeking funding for this potential project that could pilot both the water security modelling and strategic approach to regional water planning in NSW.

See response to 1a for advice on hydrology modelling of the Lachlan Valley.



Belubula River Valley- Cranky Rock Site

<sup>&</sup>lt;sup>5</sup> Water NSW Water Security for Regions: Belubula and Lachlan River Dam Investigation Report December 2014

#### Centroc/Regional Development Australia Central West Priority Regional Water Infrastructure Plan

The State Government's investment in regional water security infrastructure has prompted the Centroc Board in partnership with Regional Development Australia- Central West (RDACW) to develop a decision-making matrix based on State and Federal infrastructure assessment criteria to provide a systematic analysis of each Council's infrastructure needs to clearly demonstrate regional priorities across infrastructure tranches including water.

Prioritisation of infrastructure needs is increasingly important as government's at all three levels face tighter budgets and increasing service demands. A considered view of regional priorities in advance of funding programs will lead to improved outcomes for each of the levels of government investing in infrastructure and the delivery of the higher priority, economically enabling, projects for the region. It will also enable the region to proactively participate in the broader State and Federal infrastructure planning and funding processes in a strategic and targeted manner.

The Regional Priority Water Infrastructure Plan reflects the priority for the region of large transformative water security projects including a new storage in Central NSW as well as other distribution solutions clearly aligned to the economic imperatives of the region. The Plan further consolidates the region's maturity in regional water planning. A Copy of the Regional Priority Water Infrastructure Plan is provided as attachment 2.

The region is investment ready with considerable understanding of its priority infrastructure needs and of where Governments can achieve the greatest return on investment.

Further to its work as a regional pilot Joint Organisations (JO), Centroc is seeking improved intergovernmental collaboration to strategically align Local, Regional, State and Federal Government planning in key areas such as water to deliver optimal outcomes for communities and good value investment in infrastructure.

c) review the NSW Government's response to the recommendations of the June 2013 report by the Standing Committee on State Development on the adequacy of water storages in New South Wales.

#### **Centroc Response**

In 2012 Centroc made a submission to the Standing Committee inquiry into the adequacy of water storages in New South Wales providing further advice to the third hearing of the Committee in Sydney on 16 November 2012.

At this time issues detailed in response to 1b of this submission were raised, specifically the findings of the CWSS including the need for additional storage and transfer options and the impact of water shortages on regional development.

The following table details Centroc's position with regard to the NSW Government response to the recommendations of the June 2013 report by the Standing Committee on State Development on the adequacy of water storages in NSW.

Green =agrees with the NSW Government response Orange = prefers the recommendation over the NSW Government response Red = disagrees with the NSW Government response.

RECOMMENDATIONS	NSW GOVERNMENT RESPONSE	CENTROC COMMENT ON NSW GOVERNMENT RESPONSE
Recommendation 1 Page 32 That the NSW Government clearly communicate to stakeholders the purpose of all major water storages in New South Wales.	Support Clarifying and stating the purpose of major water storages in NSW will help to address some of the misconceptions held by the community as to the purposes of water storages. This will also help to resolve the differing views held between stakeholders on the purpose of water storages. The Sydney Catchment Authority, State Water Corporation and Hunter Water Corporation each include information on the water storages they manage on their websites. Further information will be provided to specify the purpose of each of the major water storages. The NSW Government will look at identifying opportunities to communicate the purpose of each major water storage dam to relevant stakeholders. However, as community needs change over time in response to population growth, economic trends and climate variation this may affect or change the purpose of water storages. Stakeholders will have the opportunity to work through and agree upon these changes as they happen.	Centroc welcomes support by the NSW Government for improved communication with key stakeholders, particularly Local Government, on all aspects of water management as it impacts on the communities of the Central NSW region. It is noted that implementation of the Water NSW Amendment Bill stage 2 should see improved stakeholder and customer engagement with operational and customer facing functions currently undertaken by DPI Water transferred to WaterNSW.
<b>Recommendation 2</b> Page 33 That the NSW Government publish the outcomes of its review of the potential role for Warragamba Dam in flood mitigation.	Support. The Hawkesbury Nepean Valley Flood Management Review is looking at all facets of managing flood risk in the region including governance, land use planning, emergency response, flood modelling and data and any potential infrastructure options for flood mitigation. The Government will publish the outcomes of the Stage 1 of the Review shortly and will seek community input on options to improve flood management.	No comment
<b>Recommendation 3</b> <i>Page 51</i> That the NSW Government and local councils continue to support and promote demand management practices and urban water conservation measures such as stormwater harvesting and recycling waste water.	Support. Local council water utilities throughout NSW are currently required to develop Integrated Water Cycle Management Strategies, under the NSW Best Practice Management of Water Supply and Sewerage Framework. This includes adopting comprehensive demand management strategies and exploring water conservation options, such as stormwater harvesting. The Best Practice Management framework operates in tandem with councils' Integrated Planning and Reporting framework, ensuring that long-term community planning includes consideration of water management. Although individual water utilities are achieving compliance with the Best Practice framework, their capacity to plan on a catchment-wide basis and deliver water management programs can be inhibited by their geographical size. However, many councils have sought to address these concerns by forming voluntary water alliances, county councils, or working through Regional Organisations of Councils. The Independent Local Government Review Panel has suggested more formalised regional arrangements. This may provide an opportunity to improve opportunities for water management in rural, coastal and regional areas. The Government will respond to any recommendations at the appropriate time. The Metropolitan Water Directorate undertakes research on water conservation, water recycling and stormwater harvesting to determine the extent to which these contribute to the portfolio measures that secure greater Sydney and the lower Hunter's water security into the future.	Centroc supports Recommendation 3 and welcomes NSW Government support for demand management practices and urban water conservation measures. The CWSS found that security of supply in the Lachlan catchment requires an integrated program of water conservation and demand measures coupled with new and upgraded water supply and storage infrastructure particularly high in the catchment

		See response to 1e. for
		advice on state-of-the-art
		stormwater harvesting
		schemes developed by
		Orange City Council.
Recommendation 4 Page 61	Support-in-principle.	The prosperity of the Central
That the NSW Government:	The NSW Government currently supports the agricultural sector to use more efficient water practices via a number of mechanisms:	NSW region is closely tied to
financially support the	<ul> <li>The 2013-14 Budget reserved \$40 million from the Restart NSW capital fund for</li> </ul>	both healthy towns and a
efficient water practices and	infrastructure projects to secure water supplies and drought-proof regional communities.	succession agriculture sector.
encourage contributions from	The NSW Priority Project "Sustaining the Basin: Irrigated Farm Modernisation"	Centroc welcomes the NSW
industry and the	provides incentives to farmers to upgrade and modernise their irrigation systems to	Government's in-principle
Commonwealth Government to	Australian Government, with the bulk of financial contribution provided by the	support but prefers the
support research and development in this area, and	Commonwealth. The project includes subsidised Irrigated Farm Water Use Efficiency Assessments which provide individual farmers with an indication of where water	recommendation as it stands.
	savings can be achieved and the best irrigation method to achieve savings. Advice there is a save of the "Download" connection building program. This is a 12 of the save of	
	module learning course that educates farmers on best practice irrigation methods with a strong focus on water use and infrastructure efficiency.	
	<ul> <li>Agriculture NSW has developed and delivered the WaterSmart Farms project in the</li> </ul>	
	Hawkesbury Nepean catchment in conjunction with the Hawkesbury Nepean CMA. This development project assisted farmers to improve production efficiency and reduce	
	costs.	
	<ul> <li>Agriculture NSW has partnered with the Australian government and industry on many occasions to research and develop water use efficiency methodology in both rain-fed and develop water use efficiency methodology in both rain-fed</li> </ul>	
	and imgated tarming systems. Some current research includes: - channel flow and seenane measurement (in partnership with CSIPO)	
	- evaporation control technology evaluation (in partnership with Con(C))	
	- improved productivity of rice in Australia and Cambodia (in partnership with the	
	Australian Centre for International Agriculture Research)	
	- CATPlus - linking groundwater, surface water and land use (in partnership with	
	Future Farm Industries CRC)	
	<ul> <li>SaltCap and SaltDecide - salinity management decision support tools (in partnership with Future Farm Industries CRC).</li> </ul>	
	Some current development courses include:	
	<ul> <li>promoting Water Smart infrastructure investment in NSW (in partnership with Cotton R.</li> </ul>	
	and D Corporation)	
	<ul> <li>short term agricultural training assistance livestock - water harvesting (in partnership with the Primary Industries Innovation Centre UNE)</li> </ul>	
Recommendation 4 continued	Note	Centroc has no policy with
That the NSW Government	The NSW Government's position is that the Commonwealth is required to fund the	respect to this
ensure that after the 2,750	The surrent Form Middemication resided adviced by the NGM Development of Poly-	recommendation
gigalitres in sustainable	Industries, in the northern NSW basin is funded in the main by the Commonwealth and the	
diversion limits for the Murray	savings are split 50:50 between the irrigator and the Commonwealth with the Commonwealth savings to contribute to bridging the case to the 2 750 Cl.	
Darling Basin Plan objective has	The Commonwealth has not as yet provided the details for how it will recover additional	
for on form officionsy savings	water beyond the 2,750 GL reduction but has noted that if it is to be from on-farm works it	
should be provided based on	must be at the equivalent of market rates. The NSW Government position will continue to push for water recovery mechanisms and stratenies that provide the greatest becefits for	
1. State funded projects	and least adverse impacts on, local and regional communities.	
returning 100 per cent of water	n enderen werd werden en der eine zu der der der kennen der einer beiter der Bergereichen Berg	
savings back to the		
irrigator, and		
2. any State participation in		
federally funded programs for		
on-farm water savings be based		
on irrigators retaining at least		
50 per cent of the savings.		

Recommendation 5 Page 62 That the NSW Government develop a statewide policy of waiving fixed water charges during exceptional drought conditions. Recommendation 6 Page 75 That the NSW Government review the management and impact of water releases from Blowering Dam on the Tumut River.	Note. The NSW Government entered into the Intergovernmental Agreement on National Drought Reform Program with the Commonwealth, state and territory governments in 2013 (IGA). Under the IGA, the Commonwealth and the states and territories recognise they have a common interest in reforming drought-related programs and need to work together to help farmers manage drought risk and prepare for future challenges. The NSW Government will assess the effects of exceptional drought conditions as and when those conditions occur. At times of exceptional drought, the NSW Government will consider the appropriate measures in response to the drought conditions. The Government is monitoring deteriorating conditions across much of rural and regional NSW and will continue to respond accordingly. Support-in-principle. The management of Turrut River has been reviewed many times since the construction of the Snowy Scheme and the advent of increased flows into the Turrut River, including a review of water managees an annual program of works and measures worth \$300,000 that is designed to maintain the carrying capacity of the river and prevent erosion and unvanted inundation consistent with the Management Plan developed with	Centroc has no policy with respect to this recommendation No comment
Recommendation 7 Page 81 That the NSW Government review the environmental flow allocations for all valleys in New South Wales and make representations to the Commonwealth Government for it to review the environmental flow allocations for New South Wales valleys in relation to the Murray Darling Basin Plan.	Note. Note. The water sharing planning process has already defined an appropriate method of determining environmental water allocations for valleys, and in addition to that the current environmental flow provision for the review of SDLs in the surface water sources in the northern Basin, upstream of the Menindee Lakes. This will include a review of the anvironmental flow needs of those rivers. The Basin environmental markes provision for the review of SDLs in the surface water sources in the northern Basin, upstream of the Menindee Lakes. This will include a review of the anvironmental flow needs of those rivers. The State's 31 water sharing plans are due to expire in June 2014 and the Minister for Primary Industries, after considering advice provided from both the Natural Resources Commission and the NSW Office of Water, has indicated it is appropriate to make some degree of change to these plans. These changes would be designed to improve the ransparency, comprehensiveness and consistency of the existing plans, while ensuring a more integrated approach with other landscape management and associated monitoring. Work will be undertaken to ensure the replacement plans are consistent with the current egislative framework. The environmental flow rules in the NSW water sharing plans will be reviewed as part of he process of re-development as water resource plans by 2019 under the Basin Plan. towever, the NSW environmental flow provisions have already been incorporated by the WDBA into the current benchmark extraction limits in the Basin Plan. Any changes that educe existing NSW environmental allocations could result in the Basin Plan requiring turther SU reductors.	<ul> <li>Refer to comments in recommendation 4 and response to ToR item 1a.</li> <li>Centroc seeks engagement in any review and decision regarding MDBA Plans particularly as they impact on the social and economic imperatives of the Lachlan and Macquarie catchments.</li> <li>Centroc continues to have concerns regarding the following:</li> <li>The impact on the environment of buy-backs where there is evidence to suggest that it is not leading to the environmental outcomes anticipated.</li> <li>Knock on effect of Swiss cheesing- when holes are left in irrigation districts when some irrigators decide to terminate their irrigation delivery rights.</li> </ul>
<b>Recommendation 8</b> <i>Page 82</i> That the NSW Government amend the principles of the <i>Water Management Act 2000</i> to ensure that the commercial water supply for towns and utilities and high security needs in regulated rivers are prioritised above environmental needs.	Not support. At this time, the NSW Government considers there is flexibility in the Water Management Act 2000 for the Minister responsible to suspend the operation of any management plan in a particular water management area or water source in times of severe water shortage. Therefore the NSW Government does not propose to amend the water management principles set out in the Water Management Act 2000. The NSW Government considers the existing water management principles achieve the right balance between protecting and restoring water sources throughout the State, protecting and enhancing the quality of such water sources and maximising the social and economic benefits of the community.	The Centroc Board supports Recommendation 8 advocating that water security for the region's urban centres is of the highest priority for the social and economic wellbeing of the Central NSW region. Long-term urban water security is vital to meet community needs and underpin confidence for continued investment and

		growth in the region. Current
		lack of this security is limiting economic development in the towns, industry, mining and
		agricultural sectors of the Lachlan Valley.
		Centroc advocates that there
		urban water supplies in the
		major storages of the region with failure of urban water
		supplies socially unacceptable.
		Refer to 1a for advice on a
		water planning.
Recommendation 9 Page 82	Support	Centroc has no policy with
That the NSW Government	The NSW Minster for Primary Industries has made it clear that NSW will not support changes to environmental releases without adopted consideration of the third party	respect to this
clarify with the Commonwealth	impacts. Further, releases from storages in NSW are subject to rules within respective	recommendation
Government the NSW	Water Sharing Plans and the Operating Licence issued for State Water Corporation. An operations outside of those rules will need to consider potential impacts and who would	nj #
environmental water releases	liable for any damages arising.	
made under the Murray Darling	n - Church Berline an 19 Ann an 19 Ann an 19 Ann	
Basin Plan that inundate		
private land, in time to feed		
into the process of developing		
the water sharing plans that		
must comply with the Plan and		
be enacted by 2019.	Support-in-principle	Contrac profess the
That the NSW Government	The NSW Government is supportive of efforts to save water through accurate water	recommendation over the
fund and implement the	metering systems.	NSW Government response
Computer Aided River	Two metering projects are already underway in New South Wales. The Murray Pilot	where a State wide computer
Management system across all	Project, funded by the Commonwealth, is currently being undertaken by State Water	aided river management
New South Wales river	enabled meters installed in the upper Murray catchment. The Murray Pilot will be used to	system is supported.
systems.	evaluate installation options and techniques prior to the roll out of the project across the	
Recommendation 11 Page 100	Southern Murray-Daning Basin in NSW,	
implement the water metering	Murrumbidgee CARM project, which involves the installation of approximately 600 meters	
project across New South	on the Murrumbidgee River. Metering is just one of five components of the CARM project, which also includes capital works and technology upgrades	
Wales, to support the	State Water is currently developing a business case for potential Commonwealth funding	
statewide implementation of	of CARM in the northern NSW basin.	
the Computer Aided River		
Management system		
Recommendation 12 Page 109	Support.	No comment
That the NSW Government:	In 2007 the Commonwealth Government announced it would fund changes at Menindee Lakes to reduce evanoration and improve water efficiency to recover water for the	
make representations to the	environment.	
commonwealth Government to	NSW's preconditions for any changes to Menindee Lakes were that the proposal had to	
funding for the augmentation	values of the lakes and the security of supply to downstream users.	
works at the Menindee Lakes	Recently, the NSW and Commonwealth Governments announced a funding agreement of	
and	up to \$800,000 for the NSW Government to undertake project planning, stakeholder	
<ul> <li>reaffirm and complete plans</li> </ul>	consultation and detailed design work for a water savings project to reduce average avaporation at the Menindee Lakes by 80 gigalitres. The project planning work to be	
to enable construction to	indertaken by the NSW Government will include consultation with the local community.	
commence as soon as		
practicable.		

Becommendation 12 Fogs 100         Support         Enclose the second set of th	<b>Becommendation 13</b> Page 111	Support.	Controc cooks on gagomont in
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Index Perpendicularity and South Asstralian Governments in the New South Wates.         The Memagenet of the South o	That the NSW Government	Plan, when there was considerable debate around the management of the Lower Lakes	any review and decision
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strategically placed en-route storages to extend water use and provide flexibility in water delivery in some river systems.	investigate the potential of	efficient use of water storages. As the costs of constructing or augmenting water storages	NSW Government response.
storages to extend water use and provide flexibility in water delivery in some river systems. The NSW Government will also be working with the Commonwealth and the Murray Darling Basin Authority to consider, develop and implement water efficiency projects in the Murray Darling Basin.	strategically placed en-route	should only be considered where the public benefit exceeds the economic cost.	
and provide flexibility in water delivery in some river systems.	storages to extend water use	The NSW Government will also be working with the Commonwealth and the Marray	Centroc strongly advocates
delivery in some river systems.	and provide flexibility in water	Darling Basin Authority to consider, develop and implement water efficiency projects in the	for the need for an additional
	delivery in some river systems,	Murray Darling Basin.	storage high in the Lachlan

particularly in the Murray		catchment to ensure water
Darning Basin.		of the Lachlan Valley
		Catchment.
		1b.
Recommendation 16 Page 153	Support	In its submission to the
That the NSW Government	The NSW Government acknowledges that the long-term sustainability of our communities relies on adopting an integrated approach to water management and conservation. Urban,	recommendations from the
integrated water management	industrial and agricultural water use is managed under a number of frameworks and processes all of which are dedicated to fostering the responsible use of water.	Compliance Burden on Local
and conservation policy, and	For example, the Metropolitan Water Plan (MWP) and the Lower Hunter Water Plan	Government – January 2016,
that it foster responsible use of	(LHWP) are developed to ensure that the most populous regions of NSW have access to a sustainable supply of potable water while also addressing the health of rivers affected by	Centroc makes the following
agricultural settings.	water supply dams. The MWP and LHWP are developed in close consultation with the	points:
	community and based on the latest data, techniques and research in line with the COAG	It is a staunch supporter of a
	reviewed to ensure they are based on the most accurate and up-to-date data and reflect	Best Practice Management
	best-practice approaches to water management. Water Sharing Plans also take an integrative approach to halance water use between the	Sewer Management and
	environment, water for Aboriginal communities, town water supply and productive uses of water.	recognises IWCMs as a
	Finally, the NSW Government supports councils undertaking long-term integrated planning	significant component of
	on their communities' behalt. A key component of the NSW Office of Water's NSW Best Practice Management of Water Supply and Sewerage Framework is Integrated Water Cycle Management (IWCM).	processes.
	IWCM is a way for local water utilities to sustainably manage their water systems to maximise benefits to the community and environment. It also achieves improved	Centroc advocates for
	communication between local water utilities, water users and water managers. A water utility's 30-year IWCM Strategy identifies the water severage and elementer economic	streamlining and alignment
	which provides best value for money on the basis of social, environmental and economic considerations. IWCM will deliver an integrated and sustainable water business with a	Framework with the
	strategic outlook ensuring equitable access to water for the environment and all current and future population of the community	Integrated Planning and
	and response hashes and the language of the	Councils as legislated under
		the Local Government Act.
		See advice in 1a and 1f
		planning with the IWCM a
		key component to water
		local level.
Recommendation 17 Page 154	Support. As noted in the NSW Groupment's submission to the Insuin/ (name 0) under NSW	As detailed in this submission
ensure that new storage	planning conditions, all proposals for a new dam or weir require assessment and approval under both State Community including a dam or weir require assessment and approval under both State Community including and the additional to the session of the state of the session of the state of the session of the state of the session of the set of the session of the sess	that any new storage
proposals are comprehensively	viable proposal, any new storage needs to demonstrate that it provides a net public breadly in cost official public to the location and endoes and public breadly in cost official public to the location and endoes and public breadly in cost official public to the location and endoes and public breadly in the location of the location and endoes and public breadly and the location of the location and endoes and and endoes and the location of the location o	proposals are
assessed in terms of costs,	existing policy settings governing water storage and supply in a given area.	comprehensively assessed
geological suitability of the site,	The NSW Government's submission to this inquiry also provides details on the specific approaches applicable to the assessment of augmentation proposals in metropolitan and	key focus.
environmental considerations,	non-metropolitan areas on pages 9 and 10 respectively. IPART also plays an important role in assessing, through its price determination	Centroc seeks strategic
other factors as appropriate.	processes, the capital proposals of the major water utilities (Sydney Water, Hunter Water, Sydney Catchment Authority, State Water and the locally owned Gosford and Wyong	State and Federal
	water utilities). IPART also monitors the infrastructure performance of the major State owned utilities against their operating licence requirements.	Government planning for
	Infrastructure NSW, an independent statutory agency, assists the NSW Government in	water infrastructure to
	bring additional rigour to any assessment process.	communities and good value
		investment in infrastructure.
		See 1 for details on the
		Regional Water Security
		Priority Plan.
Recommendation 18 Page 154	Note, While there is benefit in ensuring an integrated approach to water management, it should	Centroc strongly agrees with recommendation 18
establish an Integrated Water	be noted that there are currently multiple staksholder and industry groups operating in this regard.	
Management Taskforce	Further analysis of this option will be undertaken to ensure that the taskforce could provide	It is central to Centroc's
comprised of representatives of	cangiore penetits beyond those currently achieved through existing stakeholder networks.	position on regional water
	1	<u> </u>

groups and government, with		
the following roles:		Refer to details provided at
<ul> <li>to drive innovation in</li> </ul>		1a and 1f.
responsible water		
conservation, use and		
management, and		
<ul> <li>to build collaborative</li> </ul>		
relationships and promote the		
sharing of knowledge and		
expertise between and within		
water user groups across New		
South Wales.		
Recommendation 19 Page 154	Support.	As detailed elsewhere in this
That the NSW Government	The NSW Government's approach to water planning and management policies is guided by the good to NSW 2001 when peel to see us patches water a section (Cost 21) and but	submission, Centroc supports
commit to investing in water	protect our rivers (Goal 22) at minimum cost to water consumers (Goal 5). They are also	a holistic regional water
efficiency research and	informed by key national principles and intergovernmental agreements such as the	planning process that
development, to inform an	National Water Initiative, COAG endorsed National Urban Water Planning Principles and the Murray Darling Basin reforms	provides for greater
integrated, best practice	the manay beaming beam relation.	integration and best practice
approach to water	- In addition to the research and development activities listed in response to	in water management
management, and to further	recommendation 4, Agriculture NSW is currently preparing a variety of preliminary	practice across catchments.
advances in this area.	research proposals for consideration by Industry Research and Development	
	vear action plan linking State and Australian Government, industry and investor research	Any investment by the NSW
	and development priorities to better target funding sources, collaborative partnerships and	Government in water
	the needs of farmers and industry,	efficiency research is
	Agriouiture NSW also employs 10 permanent research officers and technical specialists to undertake dedicated water related research. This research informs water use efficiency in both rain-fed and irrigated farming systems. There are 6 development officers that work with industry and individual farmers promoting water use efficiency in NSW.	welcomed.
	Additionally, the NSW Priority Project "Sustaining the Basin: Irrigated Farm Modernisation" employs an additional two development officers to assist farmers with entry into and implementation of the project.	

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

#### **Centroc Response**

With parts of Central NSW saturated from their wettest June on record and further storm events forecast in coming months, the issue of the financial cost of flood and high rainfall on roads, local water utilities and community infrastructure is of great concern to Centroc member Councils with most still assessing the level of damage and cost of repairs.

Damage to infrastructure has not necessarily been the result of flood but more of ongoing heavy storm events compounded in some areas by very cold conditions resulting in ice and snow which has caused significant damage to road surfaces and made some gravel roads impassable.

In some towns these conditions have put pressure on already ageing water treatment plants as they have struggled with high levels of turbidity in raw water, emphasising the need for more capital works to improve treatment processes.

In regional areas such as those covered by our member councils, water utilities while run on a commercial basis are not profit making ventures. They operate to deliver secure and quality water supplies and sewerage services to communities that are affordable and responsive to community

needs. Particularly in the case of water supply, Councils have a continuing need to upgrade infrastructure to meet the ever changing national water quality and environmental standards.

As such Councils do not have sufficient funds to cover the significant costs associated with unexpected damage to essential infrastructure through natural disasters such as floods in addition to the ongoing everyday maintenance costs.

Centroc has previously advocated for Natural Disaster Relief and Recovery Arrangements (NDRRA) to be changed to make flood damaged local water utility infrastructure eligible for assistance.

In December 2011, the Local Government and Shires Association of NSW in conjunction with the Floodplains Management Association surveyed all NSW councils that had in place natural disaster declarations due to flooding in 2010/2011. One of the key findings from the survey was councils' frustration over the ineligibility of local water utilities to receive assistance under NDRRA.

At the time Centroc supported the Shires Association of NSW position that councils' local water utilities be considered under NDRRA determination 3.6.3 which provides that: "A body does not meet the requirements of subclause 3.6.2 is nevertheless taken to be an eligible undertaking if the Minister has agreed in writing. In the light of special circumstances presented by a state, that the body should be treated as an eligible undertaking for the purposes of this Determination."

It is to be noted that while changes have been made to the NDRRA in July 2016, water supply and sewerage services are still considered trading undertakings recovering their costs from rates and charges and, therefore, not eligible for financial assistance.

Also it must be acknowledged that while some parts of the region have experienced record breaking rainfall, others particularly in the west still have dams that are below capacity.

e) 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.

#### Centroc Response

As detailed in response to 1b, the Centroc Water Security Study found that security of water supply could not be achieved in the Lachlan catchment through Demand Management initiatives alone but requires an integrated program of water conservation and demand management measures, coupled with new and upgraded water supply and storage infrastructure particularly high in the Lachlan catchment.

With on-going water supply security concerns in the region, how water from storm events is captured and managed while ensuring that environmental flows are maintained is a key issue.

#### Stormwater Harvesting

In response to the millennium drought and huge pressures on its urban water supply, Orange City Council is leading the way with its innovative stormwater harvesting schemes becoming an integral

part of Council's water supply. The *Blackmans Swamp Creek Stormwater Harvesting Scheme* represents the first large scale, indirect-to-potable stormwater harvesting project in NSW, if not Australia. This project is capable of providing between 1300-2100ML of additional water into the Orange's raw water supply each year from the city's stormwater system, meeting up to 40 per cent of the city's total water needs.

The basic concept of the *Blackmans Swamp Creek Stormwater Harvesting Scheme* involves capturing a portion of the high flows in Blackmans Swamp Creek during storm events, and transferring these into the nearby Suma Park Dam to augment the city's bulk water supply. For more detail: http://www.orange.nsw.gov.au/site/index.cfm?display=147115

The *Ploughmans Creek Stormwater Harvesting Scheme* follows on the heels of the multi award winning *Blackmans Swamp Creek Stormwater Harvesting Scheme*. This scheme will transfer a portion of the storm flows from the Ploughmans Creek catchment into Suma Park Dam where it will supplement the City's raw water supplies.

A drier future, albeit with more extreme storm events, makes stormwater harvesting from an urbanised catchment a sensible option to consider. The challenge is to adaptively manage the scheme's use so that the downstream impact is not significant and that the needs of downstream users and the aquatic environment are not compromised. The urbanisation of the Ploughmans Creek catchment, compared to its natural condition, has generated additional stormwater runoff. The harvesting scheme, as proposed, has been designed and will be operated to capture and use this extra runoff.

The *Ploughmans Creek Stormwater Harvesting Scheme* was constructed and will operate without risk of serious or irreversible damage; without degrading the health, diversity and productivity of the environment for future generations; and without jeopardising biological diversity or ecological integrity.

The Review of Environmental Factors (REF) placed on public exhibition in November/December 2009 concludes that the construction and operation of the scheme is unlikely to result in a significant adverse environmental impact.

The *Ploughmans Creek Stormwater Harvesting Scheme* comprises four (4) wetlands to provide stormwater quality and quantity controls and two (2) small V-notch weirs and associated pumps to pool and harvest stormwater flows. The average volume harvesting by the scheme under current catchment conditions is estimated at 700ML/year however, when the catchment is fully developed this is estimated to increase to an average of 800ML/year. For more detail: http://www.orange.nsw.gov.au/site/index.cfm?display=158554



Ploughmans Creek Stormwater Harvesting Scheme

f)	examine social, economic and environmental aspects of water management practice in New South Wales and international jurisdictions, including the following case studies:	
	i.	Broken Hill town water supply/Menindee Lakes system
	ii.	South Western NSW water management practices
	iii.	North Western NSW water management practices.

#### **Centroc Response**

Please note that Centroc's response is based on water management practices as they pertain to Local Government Local Water Utilities and the management of town water supplies. It touches on three key areas:

- Management of Local Government LWUs in line with the NSW Government Best Practice Framework for Water and Sewer;
- Regional Water Planning; and
- Structural arrangements for the management of LWUs

Centroc through its Water Utilities Alliance has deliberatively advocated for many years for the streamlining of the NSW Government Best Practice Framework for Water and Sewer Management and greater alignment of the compliance Framework with the legislative requirements for Local Government Water Utilities under the Local Government Act.

Centroc's position in relation to water management practices as they impact on Local Government LWUs is best summarised in its submissions to the IPART Review of Reporting and Compliance Burdens on Local Government dated August 2015 and February 2016. These are detailed below.

In its August 2015 submission to the IPART review of reporting and compliance burdens on Local Government Centroc made the following recommendation with regard to the compliance framework for Local Government Local Water Utilities:

- That a review by the State Government in collaboration with Local Government of the efficiency, benefits and costs associated with the current compliance framework for both the State Government and Local Water Utilities be implemented.
- That any review includes:

- a review of data collected by State agencies and the purpose for its collection with an emphasis on greater coordination by State government departments of their data collection and reporting requirements.

- a review of the potential linkages between the DPI Water Best Practice Framework and the Integrated Planning and Reporting processes of Councils to reduce duplication in data collection and reporting.

## In its February 2016 response to IPART's Local Government Regulatory Burdens Review Draft Report – January 2016 Centroc made the following comments and recommendations;

The Centroc Board are not opposed to regulation of the water and sewer sector to ensure a high level of service delivery to its communities. We are concerned, however, to ensure that the current issues with the management of the Best Practice Compliance Framework are addressed in collaboration with Local Government and in a way that sees alignment of Local and State Government priorities with our communities interests at the heart.

The Centroc Board made the following recommendations with regard to the IPART draft recommendations 10, 11 and 12:

#### **IPART Recommendation 10**

That the Department of Primary Industries Water (DPI Water) undertake central water planning for Local Water Utilities (LWUs) to ensure that water supply and demand options are considered in the context of catchments, replacing the water planning LWUs currently undertake individually through Integrated Water Cycle Management Strategies.

#### Centroc's Recommendation for change to the IPART draft recommendation 10:

Centroc disagrees with recommendation 10 as the problem is not going to be fixed by giving work to DPI Water instead there is a need for the State Government to:

- Review and co-design the strategic framework for regional water planning with LG involved at the decision making level to reflect the need for better alignment and integration on a catchment basis then give consideration to the fit of IWCM; and
- *Review and restructure DPI Water taking in to account the need for cultural change.*

The process for Plan development and the Plan itself needs to be co-designed with the State through a true partnership approach to ensure alignment of Local, State and Regional priorities and to ensure plan ownership.

#### **IPART Recommendation 11**

That the NSW Government enable LWUs with sufficient capacity to be regulated under the Water Industry Competition Act 2006 as an alternative to their current regulation under the Best-Practice Management of Water Supply and Sewerage Framework and section 60 of the Local Government Act 1993

#### Centroc's Recommendation for change to the IPART draft recommendation 11:

Centroc disagrees with recommendation 11 as it does not see this as the solution to the problem that is attempting to be fixed. It is recommended that the State Government:

• Review and restructure DPI Water taking in to account the need for cultural change to enable efficient and timely approvals for section 60 and other compliance based issues;

- Implement a review in collaboration with Local Government of the efficiency, benefits and costs associated with the current compliance framework for both the State Government and Local Water Utilities; and
- Finalise review of the Local Government Act as it impacts on LWUs in partnership with key stakeholders.

#### **IPART Recommendation 12**

That DPI Water amend the Best-Practice Management of Water Supply and Sewerage Guidelines to: - streamline the NSW Performance Monitoring System to ensure each performance measure reported is:

- linked to a clear regulatory objective;
- used by either most Local Water Utilities (LWUs) or DPI Water for compliance or meaningful comparative purposes;
- not in excess of the performance measures required under the National Water Initiative; and
- o not duplicating information reported to other State agencies
- reduce the number of performance measures and/or the frequency of reporting for small LWUs with fewer than 10,000 connections

#### Centroc's Response to the IPART draft recommendation 12:

Centroc welcomes recommendation 12 on the proviso that:

- The State Government implement a review in collaboration with Local Government of the efficiency, benefits and costs associated with the current compliance framework for both the State Government and Local Water Utilities; and
- Any streamlining of the Best Practice Framework must be undertaken with LG LWUs engaged in the process through a true partnership approach at decision-making level.

Centroc notes that DPI Water and Water NSW are currently undergoing a functional review through the implementation of the Water NSW Amendment Bill (2016).

With inter-governmental collaboration a corner stone of its JO Pilot, the Centroc Board has invited DPI Water, NSW Water and NSW Health to explore opportunities to work collaboratively on options that offer substantive improvements for the supply of quality secure water to the communities of Central NSW.

While engagement to date has been slow it is hoped that the feasibility study for the proposed dam on the Belubula will provide the platform for stakeholders representing town water, industry, agriculture and the environment working with State and Federal Government agencies with legislative requirements for water to co-design a Regional Water Plan that will ensure the social, economic and environmental health of the region.

#### Structural Arrangements

Centroc supports Local Government as the agency of choice delivering water utilities management in regional NSW.

At the 2016 National General Assembly of the Australian Local Government Association held in Canberra in February, the Association resolved to oppose recommendation 4.7 in the *Infrastructure Australia Plan- Priorities and reforms for our nation's future* released in February 2016 that recommends the transfer of council provided water and sewerage services to regional water corporation and their privatisation where commercially viable

Infrastructure Australia has provided advice nationally that State and Territory Governments should undertake independent audits of the performance, financial viability and capacity constraints of local councils in meeting the minimum standards in drinking water in all regional communities with these audits informing pathways to consideration of council amalgamations and privatisation where commercially viable.

Recommendations to aggregate non-metropolitan LWU are unjustified and based on misinformation in previous reports to Government including the Infrastructure Australia AECOM report since discredited by the Productivity Commission.

NSW Office of Water's Performance Monitoring shows assumptions regarding the performance of non-metropolitan LWU to be unsupported by empirical evidence with regional NSW utilities performing well in terms of national standards.

The Office of Water has required NSW LWUs to prepare highly detailed Strategic Business Plans since 1993. These require LWUs to recover all costs, including those required for current and future capital costs for at least 20 years.

Lower prices in LWUs reflect greater efficiency of operation due to economies of scope within the local government environment.

These efficiencies and community resilience rely on the retention of services locally. Care must be taken where communities served have a relationship with the entity managing programming as critical as water supply.

The problem is resourcing, not structure. To support the resilience of regional communities, retention of control over utilities such as water is critical. Economies of scope for Council operations are afforded by managing water supply and sewerage services. This, and the value communities place on having their say where it is heard best at the politically responsive local level, suggests that the way forward is to better resource local government, not restructure it into larger entities or worse State owned corporations taking a dividend from regional economies with a view to on-selling to the private sector.

Through Local Government management of water locally- services are well priced, responsive to community, delivered in an integrated manner with close consultation with planning and other Council functions including catchment management.

International research details over 180 cases of water remunicipalisation in 35 countries, including in Europe, the Americas, Asia and Africa over the last 15 years.

http://www.psiru.org/sites/default/files/2015-04-W-OurPublicWaterFutureFINAL.pdf

#### **Centroc Water Utilities Alliance**

CENTROC WATER UTILITIES ALLIANCE

Local Government management of water utilities in Central NSW is being undertaken on a solid basis through the Centroc Water Utilities Alliance with demonstrable cost savings and efficiencies being achieved.

Formed in 2009, the Centroc Water Utilities Alliance (CWUA) is a voluntary collaborative Alliance between 14 Centroc member Councils. The Alliance aims for Local Government to be recognised as national leaders in delivering secure and quality water supplies and sewerage services to grow Central NSW to 2059 and beyond.

The CWUA's strategic approach delivers effective and efficient services through:

- Regional strategic planning and prioritisation
- Inter-governmental collaboration
- Regional leadership and advocacy
- Operational support to member Councils.

Recognised by the Productivity Commission, CWUA achievements include:

- Collectively saved members in excess of \$600k
- Attracted over \$3m in grant funding for programming
- 100% Compliance in Best Practice management plans
- Completed regional Integrated Water Cycle, Drought, Demand Management and Strategic Business Plans
- A Regional Priority Water Infrastructure Plan to inform investment
- A Training and Mentoring Workforce Resource Sharing Plan
- Compliance based training in drinking water quality to over 70 water operators
- Formation of a Centroc Operators Group for training, mentoring and skills development of Water and Waste Water Treatment Operators meeting quarterly.
- \$40k in Skill Set funding for a pilot Workforce Development Program aimed at certification of water treatment operators under the National Certification Framework at 4 member Councils resulting in 14 Water Operators achieving qualifications required to meet Certification with further roll-out underway.

- Work on Water Loss Management including production of a Toolkit distributed to Councils throughout NSW through a partnership with the NSW Water Directorate.
- Work underway to develop a Best Practice in Drinking Water Management Program.



Centroc Operators at CWUA/Water Industry Operator's Association Interest Day - Bathurst - Nov 2015

*g)* the efficiency and sustainability of environmental water being managed by different State and Federal Government departments and agencies.

#### Centroc Response

#### Murray Darling Basin Authority

Further to Centroc's response to 1a and 1f, the Centroc Board wants to be engaged in any review and decision making regarding Murray Darling Basin Authority Plans particularly as they impact on the social and economic imperatives of the Lachlan and Macquarie Catchments.

Throughout our collaborative work with a broad range of stakeholders in the community on water security we have received feedback that the region's agricultural sector is keen for a review of the Murray Darling Basin Plan.

In the past there has been limited engagement with Local Government in the region on the development of MDBA Plans and the impact of sustainable diversion limits.

The Centroc Board seeks to work in collaboration with other levels of Government to optimise and share our deep knowledge of the region's water needs from a social, economic and environmental perspective.

The issue of licensing has been raised as a complicated and specialised area requiring further advice in the context of the review of the CWSS. It has been suggested that the implications of the Murray Darling Basin Water Sharing Plan for licensing and the transfer of water between catchments requires further review by the Centroc Board.

Centroc commends the MDBA for its work to improve communication and stakeholder engagement in relation to the Basin Plan Reviews and welcomes engagement with Local Government in future reviews as they impact on the Lachlan and Macquarie catchments.

#### NSW DPI Water

On 1 Jul 2016, DPI Water announced the commencement of 28 new, replacement and amalgamated Water Sharing Plans across NSW. The Water Sharing Plan for the Lachlan Regulated River Water Source and the Macquarie and Cudgegong Regulated Rivers Water Source were replaced.

According to advice provided on the DPI Water website there was no formal public consultation process undertaken, however:

All affected water users received a letter and were given the opportunity to prepare a submission regarding replacement of the plan.

DPI Water has also consulted with key stakeholder groups to seek feedback on changes required in the plan, and to provide updates on progress as the preparation of the replacement plan proceeded.

It is also understood from the DPI Water website that implementation of the Basin Plan will occur during the life of these Water Sharing Plans.

The Commonwealth's Water Act 2007 requires that all Basin water resources to be covered by water resource plans by July 2019. The water resource plans will ensure that the sustainable diversion limits are implemented. In the interim, any State plans (existing or replaced) must not reduce the existing volume of water made available for the environment.

Water resource plans will comprise a number of elements, including the water sharing plans covering the area of the water resource plan.

DPI Water will be undertaking extensive consultation with industry and key stakeholders in the development of water resource plans.

Stakeholder Advisory Panels have been already been established in the Lachlan, Gwydir and Macquarie surface water areas for water resource planning. Further panels are to follow.

Despite on-going advocacy to DPI Water and the State Government with regard to engagement with Centroc on regional water planning, to date there has been no contact with Centroc on this matter.

- *h) the management, appropriateness, efficiency and reporting of:* 
  - *i. inter-valley transfers*
  - *ii.* conveyance and loss water
  - iii. carryover
  - iv. the management and reporting of the water market.

#### **Centroc Response**

#### i) Inter-valley transfers

Since completion of the CWSS in 2009 the issue of inter-valley transfers between the Macquarie and Lachlan Catchments has been of interest in securing supplies across the region.

#### Central Tablelands Regional Water Security Project

Historic funding by the State Government of \$39.7M to Orange City Council, Central Tablelands Water (CTW) and Cabonne Council under the Restart NSW Water Security for Regions programme to build two new pipelines to improve water access and security in the areas serviced by Orange, Cabonne and Central Tablelands Water now offers this possibility.

Project 1 - Proponent Cabonne Council. This project comprises the following components:-

- 16km raw water pipeline from Orange to Molong Dam
- 49km drinking (potable) water pipeline from Molong to Cumnock and Yeoval
- cost estimate \$23.42 million

**Project 2** - Proponents Orange City Council and Central Tablelands Water. This project comprises the following components:-

- 57km potable pipeline from Orange to Carcoar via Spring Hill, Millthorpe and Blayney
- Pump stations for bi directional water transfers
- cost estimate \$35.78 million



In 2009 Centroc investigated water security across 17 local government areas and identified that 29 communities were at risk and required substantial water security improvements. The Macquarie

River to Orange Pipeline has substantially increased the Orange system's secure yield and coupled with other water security projects, will provide water security for Orange until 2060.

However, Central Tablelands Water system remains at risk with a modelled shortfall in 2060 of approximately 1,120 ML/year. CTW have collaborated with OCC to share the additional secure yield provided by the Macquarie River to Orange Pipeline thereby improving water security across these local regions. The project will provide water security by sharing water resources between various sources allowing water to be moved from OCC to CTW and vice versa, depending on needs and water availability. The improved regional water security provides substantial economic benefits.

The water distribution network provided by through these two pipelines will be the first water supply linkage between the Macquarie and Lachlan catchments and has the potential to expand in the future to supplement supplies to other regional water supply utilities including Forbes, Parkes and Condobolin. This will expand the reach of the water distribution network to a regional population of over 107,000.

It will also provide a means to flow water in both directions between the Macquarie and Lachlan catchments to offset dry localised conditions.

For more detail: http://yoursay.orange.nsw.gov.au/pipelines

#### Potential Springvale to Kings Plain Pipeline

While there may be a number of options to provide water needed to support the development of a new mine in the region at Kings Plain near Blayney, one of the options that has been suggested is a pipeline from the Lithgow LGA.

An opportunity is currently under investigation to transfer water from Centennial Coal mines in the Lithgow LGA to Kings Plains in the Blayney LGA to, in the first instance, provide the water needed for development of a new mine. This project could also provide the opportunity to construct a pipeline between Wallerawang and Kings Plains with the potential for 27 mega litres of water for agricultural use.

In affect this pipeline would see the diversion of east flowing water west with the benefits detailed below.

It is estimated that the Kings Plain Mine will generate approximately \$875 million spend in the local region over the 10 year construction and operational phases with the potential for an estimated \$90 million in royalties to be paid to the NSW Government over 10 years (based on current gold price of \$1,770/oz). In addition it would generate 150 direct jobs and 400 indirect jobs during the ten years of operation.

If a transfer pipeline is constructed it could create unprecedented Agriculture opportunities for Blayney, Bathurst electorate, Central West of NSW and all of NSW.

An Intensive Agricultural Precinct at Kings Plains could include; livestock feedlots, irrigated cropping, hydroponics etc.) as having a guaranteed source of water that would be available for agricultural production means the business model is not reliant on rainfall and/or impacted by climate change.

Blayney is already a key strategic Agricultural precinct, however installation of this pipeline securing a guaranteed source of water could be an Agricultural revolution for; Blayney, Bathurst electorate, entire Central West region and NSW as a whole.

Unprecedented economic opportunities and job creation would result and complement existing infrastructure already in place including; the Central Tablelands Livestock Exchange, Sealink freezer facilities, two rail sidings and intermodal facilities, close proximity to Hume Highway, close proximity to Sydney Ports (particularly if the Blayney-Demondrille Railway Line is reopened) and Canberra Airport (now international)

Advice regarding this potential project has been provided to the member for Bathurst, Paul Toole.

For more detail go to: http://majorprojects.planning.nsw.gov.au/index.pl?action=view\_job&job\_id=7592

#### ii) Conveyance and loss of water

There are a number of opportunities and challenges when considering conveyance and water loss in this region. At its simplest, piped water helps the challenges of water loss when combined with competing interests for water.

In the first instance consider the management of flow within our rivers. As irrigators call on water flow increases, large transfers can make low level crossings unpassable and strip the riverine environment. The management of the Windamere/Burrendong system is a case in point.

Secondly, water losses provide significant challenges to ensuring urban water security. To get water to the end of the Lachlan system to provide urban water to Lake Cargelligo, substantial losses of up to 85% along the way must be borne. A logical solution is to ensure a network of pipes for urban communities thus freeing up water transfers for other purposes. Indeed it was State Water informing the Centroc Board in May 2005 that it would have to "pulse" the Lachlan to get water to Lake Cargelligo and Condobolin that gave rise to the Centroc Water Security Study. Arguably, this "pulsing" failed which is why a variety of emergency infrastructure solutions needed to be implanted across the region.

The Centroc Water Security Study grappled with the problem of needing to leave the water in the major irrigation dams for environmental and industry purposes. It identified a number of infrastructure solutions including a network of pipes connected to a water storage high in the catchment recognising the storage management requirements for urban water is vastly different to the storage management requirements for selling water to industry.

An interesting project for this region would be to identify ways in which pipelines can meet the needs of other water users than urban communities. This would require a degree of planning and structural alignment that it not yet in place in this State.

**iii)** Carry over- No comment is made, though, as detailed elsewhere in this submission, Centroc is keen to be a part of any decision making processes in this regard.

**iv)** The management and reporting of the water market- No comment is made, though, as detailed elsewhere in this submission, Centroc is keen to be a part of any decision making processes in this regard.

### Conclusion

Central NSW Councils thank the Committee for the opportunity to provide comment to this inquiry into the augmentation of water supply for rural and regional NSW and in summary make the following points:

- Centroc strongly supports the need for a new dam in the Lachlan catchment in concert with a proper assessment of the Lake Rowlands and Carcoar Dam elements for urban water security in the Centroc region.
- The prosperity of our region is closely tied to both healthy towns and a successful agricultural sector.
- Currently water security is limiting economic development in the towns, industry, mining and agricultural sectors of the Lachlan Valley.
- The region welcomes the State Government's focus on strategic work for water and encourages better engagement with state agencies.
- Options that offer substantive improvements for both urban water security and agricultural water security are supported by the Centroc Board as well as by the Belubula Landholders Association and Lachlan Valley Water.
- Failure of urban water supplies is socially unacceptable and as such Centroc Councils support investment in additional water storage providing it addresses urban and agricultural water needs.
- For regional communities water is our most valuable resource. Investment in essential and new regional infrastructure that secures this resource is a good investment in the future of our communities.
- The Centroc Board wants to be part of evaluations and the decision-making processes relating to priority water infrastructure funding in the region.

As a Pilot Joint Organisation, Centroc is looking at a step change in doing business with the State. We seek greater engagement and alignment between Local, Regional, State and Federal Government in water resource management and planning in the Central NSW region. At the same time our member Councils are collaborating on state of the art work in delivering secure quality water

supplies to our communities. The recent NSW Restart funding of the pipelines in the region recognises our ongoing collaborative approach.

Central NSW Councils have demonstrated their capability to unite, collaborate and work towards a common goal. Our collective efforts have successfully developed a long-term sustainable water supply strategy which significantly improves the water supply security of our region whilst balancing social, environmental and economic outcomes.

We would welcome the opportunity to host the Committee on tour through the region to showcase the innovative work that is being done and to provide insights from our extensive knowledge of the water security needs of communities across the Central NSW region.

Please contact our Executive Officer Ms Jennifer Bennett onor Meredith Macpherson,Program Manager, Centroc Water Utilities Alliance onif you require furtherinformation or if you are interested in Centroc assisting with the coordination of a public hearing inour region.

Yours sincerely,

Cr Bill West Chair Central NSW Councils (Centroc) **ATTACHMENT 1** 

## **NSW GOVERNMENT STRATEGIC FRAMEWORK FOR WATER PLANNING?**

