

Alternative Emergency Drought Water Supply for Orange

Justification

Drought will come again and we (Orange) must be prepared!

The Orange water storage dams have been full, or near full, since August 2010. There are some 5 years of water available to Orange, based on its current consumption rates, without any inflow to its water storage dams. There doesn't appear to be any near future emergency to warrant the proposed Macquarie to Orange pipeline.

The award winning Stormwater Harvesting system is an appropriate means of supplementing Orange's water supply if and when rain events occur. It must be noted that OCC are still involved in matters relating to licencing issues regarding the stormwater harvesting scheme. Until such time that this matter is dealt with, a solution to Orange's perceived water problem cannot be achieved, in my opinion.

Any solution to water security for Orange must be included in a regional integrated water cycle management plan. The current proposed Macquarie River pipeline does not satisfy any future plan.

"The ongoing role of the pipeline in the regional supply system, if it were installed as a result of an emergency situation, was not assessed as part of the Water Study". MWH Concept Investigation Report 6th Jan 2011--- included into Orange's Referral to the Commonwealth.

It could be argued that Orange was not in any emergency water supply situation because at that time Orange still had approximately 2 years water supply in storage and the means to satisfy water demand by using the stormwater harvesting system more efficiently. This was not the case with Goulburn that had a few weeks left in storage on occasions dating back to the early 1980's and no harvesting system in place.

I feel that Orange City Council and its Councillors did Orange a genuine disservice with going to and promoting level 5 or 6 water restrictions at this time. Their endeavours may have been successful in obtaining funds from State and Commonwealth Governments, at election time, but for a very dubious project (in my opinion).

In December 2011, the Commonwealth- and Minister Tony Burke - determined that it had serious concerns regarding this project on environmental issues and that the project must be cost efficient. The Commonwealth declared the project to be a Controlled Action because it was likely to have a significant impact.

Summary of Proposed Alternative

Installing a water pipeline section from Burrendong Dam to a railhead at Mumbil - this could be the commencement of a plan to provide water security to the region. This would allow water to be transported via rail to any point along the rail network, including Orange. Admittedly, moving water would be expensive but would only operate if and when an emergency happened.

Delivery points for Orange

1. Northern Orange, adjacent to the Northern Distributor Road, where the water could be unloaded practically into the existing stormwater harvesting dam and pumped to Suma Park Dam via the existing pipeline.
2. Southern Orange to the Spring Creek Dam at the Bloomfield Station site, whereby the discharged water would only need to travel a few hundred metres in Gosling creek to the dam.

Benefits of the Alternative

Any required water would be sourced from a large storage Burrendong Dam and not from a water stressed river. There would be no need to construct a costly new dam for storage. This would allow water to be accessed when required, whether for residential or commercial purposes.

In the future, extensions to the pipeline could see water delivered to other small townships; Wellington, Cumnock, Yeoval, Molong, Mullion Creek and Stuart Town.

The NSW Office of Water and the State may consider allocating 5% of water (the 85% to 90% band of water) storage in Burrendong Dam to meet this requirement.

This proposed project would not have the same environmental impact that the proposed Macquarie River would have. Extensions to this pipeline could provide a means to satisfy future water requirements of planned mines to be developed in the region.

The pipeline could be extended to Wellington or Orange satisfying future regional requirements. The railway corridor may be considered as a possible route for the pipeline to Wellington and later to Orange. The Wellington pipeline would more closely follow the existing Centroc Councils' water planning strategies.

The expected development of mines in the region will require a substantial amount of water. Burrendong Dam appears to be the only source that would offer water security for any mining development in the near future. It would be reasonable to expect mining companies to invest in the extension of this pipeline.

It would appear that consultants for OCC haven't been brief to include a detailed analysis of a Burrendong Dam pipeline project. It seems apparent that the only thing they could say, "it would be more expensive than the Macquarie option", without looking at the regional viability for the Burrendong project.

The future cost of extending the pipeline could be shared by numerous local Councils and the developers of mining sites.

Current Requirements

The three levels of government to adopt a better solution to Regional water security.

Planning and designing a pipeline from Burrendong Dam to Mumbil.

Installing this section of the pipeline, from Burrendong to Mumbil, in the near future- 2 to 3 years.

Organising the plans and site for a water exchange facility at Mumbil : a loading point for water at a suitable location on the railway line.

Designing a delivery facility point for water in Orange; following the transfer of water from Burrendong Dam. A new rail siding may be required at the Northern delivery point.

Future

Mumbil may be the location for a future regional filtration plant for water. This may require dual pipelines, one for treated water and another for raw water for other usage - like mining.

This may allow future water pipelines to be constructed to smaller townships like Cumnock and Yeoval. The existing water pipeline route from the Bell River bore may be used in reverse and updated to meet further demands.

The desalination plant in Sydney may give Orange and region the ultimate emergency water back up supply if it were ever required in the future. The rail connection delivery points would be useful for this purpose. For this reason the current State Government may consider the desalination plant may be a worthy asset to retain for possible drought relief function for the State.

Rationale for this proposal

There would be no need to construct an expensive dam for water storage.

This proposal does require a re-allocation of water stored in Burrendong Dam by the appropriate authorities.

Adopting this proposal, the initial pipeline section, would be far less costly than the proposed Macquarie River to Orange pipeline. It would offer greater water security to Orange and the region. The savings could be used for investigating and possibly implementing other worthy projects in the region. A feasibility study and design for enlarging Lake Rowlands may be appropriate and/or improving water storage facilities at Yeoval and Cumnock.

Central Tablelands Water (CTW) may provide an emergency drought water supply to Orange.

Connection to CWT water supply may be possible via a pipeline from Millthorpe (CTW) to Spring Hill (OCC supply). This would depend on the supply from Lake Rowlands. It would possible to extend this pipeline to Spring Creek Dam and have water delivered directly into the storage dam. The pipeline could follow the rail line easement from Millthorpe to Spring CreekDam.

If this solution were possible, it would not involve the expense of transporting water to Orange via rail. It could give a means of connecting the Lake Rowlands water supply to Orange and Burrendong Dam with the possibility of that pipeline.

Lake Rowlands may be too expensive to proceed with in the near future but it shouldn't be discounted in the long term when the facts behind climate change are confirmed.

Orange's water storage has remained at near 100% since August 2010. The current storage levels indicate 5 years supply without any further rain. This would give a total of 6and ½ years without an emergency solution, enough time to investigate more viable and sustainable solutions to the perceived water problem for Orange.

It appears to be somewhat alarmist on the part of OCC to raise the issue of an emergency water supply option and investigate the possibility of level 6 water restrictions when at the same time selling water to a mining company.

It would be prudent to have contingency plans for an emergency water supply for Orange, in case after another 5 years there is a need for one. In the meantime, further investigations into satisfying regional water security should continue.

Include maps of

The region

Orange 3 dams and delivery points

Photos of rail connections points Mumbil, North Orange, Bloomfield, Burrendong Dam



Burrendong Dam at Mumbil



Vacant land adjacent to the railway line at Mumbil



Bloomfield's Spring Creek Dam railway line



Railway line at the Bloomfield Station site



Railway line over Gosling Creek



Railway line north of the Northern Distributor Road

