Anne Reeves OAM
PO Box 591
BROADWAY
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NSW DPI
Regional Water Strategy Team
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By Email: regionalwater.strategies@dpie.nsw.gov.au

Second Draft Macquarie-Castlereagh Regional Water Strategy

I submit the following brief comments as an individual with a long standing background in water planning, including as a former member of the Macquarie Regulated River, Castlereagh UnRegulated River Water Sharing Plan Committees and the Macquarie River EWAG.

Firstly, I welcome the move to articulate regional and state-wide strategies for NSW river systems. A comprehensive approach to management of water is much needed. Water is so much more than a commodity to be extracted for financial benefit.

It is therefore important to build a wider approach to managing water in the landscape; this includes consideration of catchment management, infrastructure, planning and natural resource utilisation as well as biodiversity conservation and community well-being. Recent years of protracted drought, major bushfires, and flooding – all exacerbated by human induced climate change – make it clear that all these aspects should be recognised in developing a water strategy that is relevant for long term. At the same time it is necessary to acknowledge that overarching water strategies for a flourishing, healthy and sustainable Australian and NSW future go beyond the role of any one government agency.

Within the constraints of this second draft for the Macquarie-Cudgegong water strategy I comment:

Priority One: Security of water supplies for growing regional cities and towns:

It is important to acknowledge that there are limits to growth. Noting the indications of increased variability of weather patterns as climate change bites deeper, delivering security of water supply makes it clear that business as usual is not an option.
Accordingly

- Records of historic rainfall must be updated to take in extremes of rainfall periods and modelling that takes account of climate change predictions up to most recent period, and factored in to guide predictions on the volumes of surface and ground water that can be sustainably extracted for cities and towns while also maintaining the health of the river system and sustaining industry.
- A profound re-think of how water is shared, including re-evaluation of the 'averaging' in anticipation periods of greater unpredictability is needed.
- Demand management and increased recycling will become increasingly important, noting that this is likely to require effective educational work to assist communities to appreciate the benefits

Priority Two: Reduce water security risks in the region's west

As above, it is important to acknowledge the predictions of increased variability of weather patterns as climate change bites deeper makes it clear that business as usual is not an option. Risks may be reduced by better processes but not eliminated.

Records of historic rainfall must be updated to incorporate extremes of rainfall periods and modelling that takes account of climate change predictions up to most recent period, factored in to guide predictions on the volumes of surface and ground water that can be extracted while also maintaining a healthy river system for the long term.

Simply increasing water storage capacity in the major upstream Burrendong Dam is not a long term solution.
Another aspect may be the need to re-assess upper catchment water harvesting take from private dams as well as land clearance that diminishes the 'sponge effect' of natural vegetation through clearance.

Priority Three – support industry and community climate adaptation

An easily accessible pro-active outreach program to assist western communities to understand and adapt to water and climate change including likely expectations on water availability should instigated and well resourced.
Such a program should include understanding that groundwater is not an open ended unlimited resource to be further drawn on as a supplement surface water until and unless there is sufficient peer-reviewed research to demonstrate that it sustainable in any particular location.

Priority Four – best use of existing water for the environment

A pro-active approach to communicating the maintenance/restoration of river, wetland and floodplain health is needed (see also above) in accordance with the objects of Water Management Act 2000* as set out on the Water NSW website.
It is becoming increasingly clear that current levels of extraction of water are damaging to the long term ecological sustainability of critical river and wetland habitat, including the Ramsar listed Macquarie Marshes: evaluating how best to revise allocation of water extraction equitably in an increasingly variable weather regime is needed. No floodplain harvesting should be regulated until and unless the full implications understood, evaluated and can be demonstrated not to further compromise an already overloaded system.

*As per the Water NSW website
The objects of the *Water Management Act* 2000 are to provide for the sustainable and integrated management of the water sources of the state for the benefit of both present and future generations and, in particular:

- Ecologically sustainable development
- Protect, enhance and restore water recourses
- Recognise and foster social and economic benefits
- Recognise the role of the community
- Provide efficient and equitable sharing of water
- Management of water sources with other aspects of the environment including native vegetation and native fauna
- Encourage the sharing of responsibility and efficient use of water
- Encourage best practice management and use of water.