Draft Regional Water Strategy
Gwydir

Regional Water Strategies Public Exhibition 2
Submission Questionnaire
(CEWO responses for template – selected free text fields only)

Priority 1: Water for critical human and environmental needs

1.1 Investigate innovative water projects for Uralla
Yes No

1.2 Support urban water efficiency measures in Moree
Yes No

1.3 Develop and publish clear policy on how the region's groundwater resources will be managed sustainably into the future
Yes No

1.4 Investigate how much water should be set aside in Copeton Dam for dry periods
Yes No

1.5 Investigate ways to improve connectivity with the Barwon–Darling River on a multi-valley scale
Yes No

1.2 Support urban water efficiency measures in Moree

The urban water supplies for Moree are drawn from the Gwydir Alluvial Aquifer, which is connected to recharge from the Gwydir River as well as floodplain recharge. The CEWO supports efforts to enhance urban water efficiency, particularly during extended dry periods when groundwater is more highly utilised, including the introduction of watering restrictions during dry times.

1.3 Develop and publish clear policy on how the region's groundwater resources will be managed sustainably into the future

While the focus for the CEWO is largely on the use of surface water, we are supportive of further development of policy and the communication of that policy (including clear steps on implementation) to improve the sustainable use of groundwater. Improved understanding of groundwater processes and sustainable access to groundwater is essential to implement existing water sharing plans and options in the strategy that increase reliance on groundwater resources. This will become of much greater importance under a drying future climate.

1.4 Investigate how much water should be set aside in Copeton Dam for dry periods

During extreme dry conditions, river operators undertake a range of options to more conservatively manage the available resource, which includes ceasing deliveries beyond a set location, applying block releases and debiting accounts at the dam wall. Such strategies reduce and cease the connectivity across the system which has detrimental impacts on the system, not just environmental but also social and cultural. Any effort to further investigate drought reserves in Copeton Dam must be on the proviso that such arrangements are only implemented under extreme dry conditions and not to become standard practice under moderate conditions to attain increased system efficiency. More regular application would have a significant impact on connection flows. The ability and responsibility to restart the river or break cease-to-flow conditions must not be born solely by

environmental water holders. As the drying conditions become more frequent and extreme, as current climate projections predict, storage management and allocations processes will need to be reviewed and modified to reduce the risk of drought operation practices becoming more frequent.

1.5 Investigate ways to improve connectivity with the Barwon–Darling River on a multi-valley scale

Restoring longitudinal connectivity from multiple catchments to the Barwon-Darling is critical to maintain ecological resilience and in supporting many of the ecological functions in both the delivering catchment and the receiving Barwon-Darling. Recent history has shown how the removal of connection flows severely impacts the wellbeing of downstream communities. The CEWO supports any effort made to improve the frequency of delivery of connection flows, which must include progress to improve or provide protection for planned environmental water within tributaries and along the Barwon-Darling through existing active management rules. Protecting and restoring connectivity is an objective of the Basin Plan and an expected outcome of the Basin-wide Environmental Watering Strategy and will continue to be an increasing priority for the CEWO under a drying climate.

Priority 2: Sustainable water resources for new and existing users

2.1 Improve public access to climate information and water availability forecasts
Yes No
2.2 Support adoption of on-farm water-efficiency measures
Yes No
2.3 Assess the potential costs and benefits of event-based trade of supplementary flows
Yes No
2.4 Increase the availability of high security water access licences
Yes No
2.5 Investigate managed aquifer recharge in the Gwydir region
Yes No
2.6 Develop ongoing arrangements for participation of local Aboriginal people in water management
Yes No
2.7 Support place-based initiatives to deliver cultural outcomes for Aboriginal people
Yes No
2.8 Support Aboriginal business opportunities in the Gwydir region
Yes No
2.9 Ensure the water management framework can support sustainable economic diversification
Yes No

2.1 Improve public access to climate information and water availability forecasts

The CEWO supports any attempt to improve the transparency and currency of water related information that is provided to the public, and also supports attempts to improve on-farm efficiencies that reduce unattributed losses. The CEWO also supports any investigation into improved recharge of groundwater aquifers.

2.3 Assess the potential costs and benefits of event-based trade of supplementary flows

The CEWO considers the possibility of event-based trade of supplementary flows may have a negative outcome for downstream environmental outcomes resulting from the supplementary event and at this stage does not support this action. Supplementary events that occur after a dry period have significant ecological benefit; the remaining volume after access licences have been utilised provides very significant benefit to reconnection flows in the wetland complexes and also from the Gwydir to the Barwon-Darling. The CEWO regards the likely impact of the trade of supplementary water to be contrary to the outcomes sought from actions 1.5 and 3.7. Further information is required on what types of supplementary event are being considered for trade, for

example additional protections afforded to events occurring after a dry period can have significant ecological benefit if protected.

2.4 Increase the availability of high security water access licences

Any increase to the availability of high security licences would need to be based on detailed supporting evidence that such a change would not result in any impact to the amount of planned environmental water available under the Water Sharing Plan. This action may further concentrate deliveries into upper sections of rivers decreasing the connectivity of flows into lower areas or have any implications for the Basin Plan implementation or Sustainable Diversion Limits in the valley. Adequate, equitable, open and appropriate consultation would need to occur with all river users (including environmental water managers) to communicate these impacts including on conversion factors and for users to understand the implication of the change. It is noted that any change to high security licences will likely result in increased reliability for some users, which will need to be offset to stay consistent with the Basin Plan. We also note that significant water may be required to bear transmission losses for high security licence delivery to some areas, which would change the balance of water available for other uses, increase volumes required in loss accounts and hence reductions to other forms of planned water. Water Resource Plans would also require accreditation for any change proposed as it is expected major changes to bulk water volumes would result.

The potential impacts of any increase in high security water access licences on the environment with realistic assumptions should be carefully assessed and made publicly available for review. Without further detail on the proposal, the CEWH is not in a position to support the option at this stage.

2.6 Develop ongoing arrangements for participation of local Aboriginal people in water management
2.7 Support place-based initiatives to deliver cultural outcomes for Aboriginal people
2.8 Support Aboriginal business opportunities in the Gwydir region

The CEWO strongly supports any effort to increase the participation of local Aboriginal people in water management, including the creation of licences specifically designed for cultural and economic water delivery which would enable Aboriginal communities to directly manage water to support their local values and sites on an enduring basis. Improving the understanding of cultural values and traditional ecological knowledge would improve the ability of environmental water managers and river operators to support cultural needs through a range of water deliveries, made in conjunction and supporting cultural flows resulting from dedicated licences. The CEWO supports efforts to improve business opportunities and broad sustainable economic diversification.

Priority 3: Best use of existing water for the environment

3.1 Fully implement the NSW Floodplain Harvesting Policy
Yes No
3.2 Invest in continuous improvement to water modelling in the Gwydir region
Yes No
3.3 Provide clarity and certainty for environmental needs during drought operations
Yes No
3.4 Mitigate the impact of water infrastructure on native fish
Yes No
3.5 Identify regionally significant riparian, wetland and floodplain reaches to protect or rehabilitate
Yes No
3.6 Remediate unapproved floodplain structures
Yes No
3.7 Modify or remove physical and operational barriers to delivering water for the environment in the western Gwydir catchment
Yes No
3.8 Protect ecosystems that depend on groundwater

Yes No

3.9 Assess gaps in the flow regime that are preventing achievement of environmental water requirements and identify cooperative actions to reinstate them

Yes No

3.1 Fully implement the NSW Floodplain Harvesting Policy

The Commonwealth Environmental Water Holder (CEWH) has previously made submissions on floodplain harvesting, the most recent to NSW's Select Committee Inquiry into floodplain harvesting, which sets out our position. It will be critical the NSW government demonstrates in practical terms, perhaps using case studies, how floodplain harvesting will be rigorously measured and monitored to allow effective compliance activities. The CEWO is aware of the compliance challenges of this form of take, which highlights the importance of integrating floodplain harvesting regulation with other rules to protect downstream outcomes particularly for cease to flow events and low flow events. It will be critical that in environmentally sensitive areas (Gingham, Lower Gwydir, Mallowa and Ballin Boora), triggers for commence and cease to take under floodplain harvesting licences for upstream river flood flows are implemented and this should be developed in consultation with NSW and Commonwealth environmental water managers before licences are issued in these areas.

3.2 Invest in continuous improvement to water modelling in the Gwydir region

The CEWO supports efforts to improve both hydraulic and hydrodynamic modelling across the Gwydir catchment, particularly an improvement to low flow transmission and inundation patterns in the wetland complexes. Model results would inform environmental water managers decision making to efficiently use a limited resource to maximise outcomes during dry times. These results would help improve understanding of third-party impacts that may result from water delivery during wet times. This could include not only modelling but also a great use of existing public remote sensing datasets and emerging remote sensing technologies. A better understanding of improving delivery of connection flows from the Mehi and Carole Creek systems into the Barwon-Darling would also be of importance and should also be a focus of any effort to increase model accuracy.

3.3 Provide clarity and certainty for environmental needs during drought operations

The CEWO supports updating the Gwydir Incident Response Guide and preparing a Gwydir Valley Drought Management Plan to clarify when, how and why drought operations are triggered. During extended dry sequences, adequate, transparent and timely management and sharing of water is critical in the Gwydir and other valleys. Please refer to previous submission, which outlines our concerns and suggestions regarding drought operational rules and procedures. Please also refer to our response to the comment as part of Priority 1 and the CEWO supports any effort to protect ecosystems that depend on groundwater.

3.4 Mitigate the impact of water infrastructure on native fish

For mitigating the impact of water infrastructure on native fish the measures adopted and technologies (including installation of fish screens on irrigation pump intakes) need to be effective, reliable and reasonably easy to implement, adjust and maintain. Measurements and mitigation of cold-water pollution is critical and is required to be urgently addressed. The combination of water re-regulation, infrastructure, pumping and river management for production has drastically impacted native fish populations in the Gwydir catchment below Copeton Dam with around 10% of the native fish population remaining and in mostly poor health. Cold-water pollution should be included in the range of strategies included, as this is a major impact to native fish in the upper to mid Gwydir. Operational protocols need to be developed with input from relevant water management agencies.

3.5 Identify regionally significant riparian, wetland and floodplain reaches to protect or rehabilitate

We support this option for the identification of areas to protect and rehabilitate to enhance the resilience of the region, noting that the CEWH is responsible for managing the Commonwealth holdings of environmental water to protect and restore the environmental assets of Murray-Darling Basin in the national interest, including rivers, lakes, wetlands and floodplains.

3.6 Remediate unapproved floodplain structures

We support acceleration of this option and consider it a high priority. Floodplain structures, including unapproved structures, which prevent or redirect environmental flows into locations that would not otherwise be inundated. The risks of inundating private land are an important consideration when making decisions about where and when to use environmental water. This risk is very difficult to mitigate without the removal unapproved structures from the floodplain. We appreciate that this issue has been identified under the Gwydir Floodplain Management program with 'Hotspots' for further investigation identified. The program to address Gwydir 'Hotspots' should be funded and progressed as a high priority. Actions to modify or remove identified priority floodplain structures and barriers that impede delivery of water to priority wetland and floodplain areas will achieve a range of environmental benefits.

3.7 Modify or remove physical and operational barriers to delivering water for the environment in the western Gwydir catchment

It is noted that the in-progress Gwydir Reconnecting Watercourse Country project (formally the Gwydir constraints project) intends to improve the ability of environmental water managers to efficiently and effectively deliver water to western wetlands through a range of operational and works measures. The CEWO supports full implementation of this project. The CEWO also supports effort to remove or modify physical and operational barriers to effective environmental water delivery covered by this Strategy that may not be included as part of the Watercourse project.

5. Other comments

A) Should any proposed actions in this consultation not be shortlisted and why?

The CEWO considers that two of the proposed actions (2.3 and 2.4) would lead to outcomes likely contrary to those sought from other actions listed under the strategy and further information is required on the details of how these actions would occur in practise. Please refer to our responses above.

B) Should any other options in Attachment 1 of the Consultation Paper be shortlisted?

6. Implementation of the Gwydir Regional Water Strategy

The CEWO is supportive of the long list of options identified to enhance participation of Aboriginal people in water management and the actions proposed in the short list as a high priority. The suite of actions would build capacity, support inclusion and real participation of Aboriginal people in water planning and management. The CEWO also recognises that the Traditional Owners were the first managers of Country and that incorporating their culture and knowledge into management of water in the region is a significant step for closing the gap.

We are also supportive of further development of the following actions as a high priority for the reasons outlined above and in our previous submission:

1. Investigate how much water should be set aside in Copeton Dam for dry periods
2. Investigate ways to improve connectivity with the Barwon–Darling River on a multi-valley scale
3. Fully implement the NSW Floodplain Harvesting Policy

4. Provide clarity and certainty for environmental needs during drought operations
5. Bringing Flood plain harvesting within water sharing arrangements
6. Identify regionally significant riparian, wetland and floodplain reaches to protect or rehabilitate
7. Remediate unapproved floodplain structures
8. Modify or remove physical and operational barriers to delivering water for the environment in the western Gwydir catchment
9. Assess gaps in the flow regime that are preventing achievement of environmental water requirements and identify cooperative actions to reinstate them