

Priority 1: Build resilience to climate extremes

Action	Comments
<p>Action 1.1: Establish a coordination approach involving all levels of Government, to implement local council and town water-related actions</p>	<p>The coordination approach must include community - it is the community that will be directly impacted by the decisions made by “all levels of government”.</p> <p>Bring in the people who live in the landscapes and manage them, particularly those with decades or intergenerational experience - they can tell you more about water in the landscape than the engineer appointed to the position at which ever government level/agency/department two years ago who will move to another level/agency/department in the next two to three years.</p> <p>Create roles that are specifically around meaningful conversations with the community, a “boots on the ground approach”, real people in real rooms, paper or electronic at the choice of community, mail outs.</p> <p>Social media, websites, two lines buried in a newsletter with a link, will not generate a diversity of inputs & information.</p> <p>Social media, media, & websites rely on people to go looking for something - if they don't know that something exists, or why it's important, or how it impacts them, why would they go looking? And if the platform changes the algorithm (eg Twitter to X) it can be outside anyone's control who gets to see what.</p> <p>I have had the opportunity to talk to people attending Lachlan Environmental Watering Advisor Group meetings, members and non-members (I am not a member) when trying to inform myself on water management & policy in the catchment.</p> <p>What I hear is that invitees from other people and agencies who play a role in landscape and water, particularly those from other catchments, are surprised and impressed by the collaborative approach to managing Environmental water in the catchment. That doesn't mean that everyone always agrees, but respectful dissent will drive better probing of options and decisions.</p> <p>This is driven by meetings that are in person, at various sites in the catchment, including taking people to see what they are making decisions on, and include informal elements outside hours of Powerpoint presentations.</p> <p>A “boots on the ground” approach.</p> <p>In relation to local government please consider that small & remote Councils have difficulty in attracting skilled and experienced staff, resource limitations, no or limited knowledge management systems, and general transience of management</p>

Action	Comments
	<p>level employees.</p> <p>A reliance on local government to provide insight into local landscapes & hydrology may result in perverse outcomes - community members need to be engaged directly.</p> <p>To attract skills and maintain attention community members need to be remunerated and resourced, beyond a token meeting fee. To contribute meaningfully community members need to read meeting materials, reports, and complete their own research - there are many hours of preparation outside a meeting to allow for informed and constructive input.</p> <p>Consider the experience of community members trying to contribute to local outcomes.</p> <p>Government frequently “consults” with communities - where several government well paid (by comparison) staff members, who work everyday in the policy area, have a two hour meeting with community members, which usually involves a presentation, of an hour or more, with a few questions at the end, and asks community to provide insight into complex and policy area.</p> <p>Assuming that “all levels of government” understand the impact of a “water-related” action on a community, landscape, and catchment will result in the status quo - the people who made the decisions have moved on to their next position or retirement and while the community lives with the consequences of the decision, good or bad, from their perspective, with little understanding of the drivers, feeling disenfranchised and potentially threatened by the changes. Not the outcome anyone wanted but all too often the experience.</p>
<p>Action 1.2: Support councils to improve flood risk management in the Lachlan region</p>	<p>A natural evolution of action 1.1.</p> <p>In planning for flood risk management the location and condition of key council infrastructure, in particular sewage treatment plants must be considered.</p> <p>These facilities are generally located close to watercourses and floodplains as they are the lowest point in the landscape, to reduce pumping costs and provide a discharge point.</p> <p>These facilities are typically ageing. In regional areas the engineering design and/or construction may not be to a standard acceptable today, and resource limitations (funds & experience staff) may have left these facilities poorly operated and/or maintained. The facilities may not have been designed to consider future population growth. Facilities designs may not have considered impacts on groundwater.</p> <p>This is demonstrated in the contamination events resulting from</p>

Action	Comments
	<p>effluent overflows to watercourses and seepage at close proximity to the Lake Cargelligo wetlands & groundwater systems (EPA clean up notice 3506624 11/09/2023).</p>
<p>Action 1.3: Upgrade the existing hydrological models for the Lachlan catchment to better represent river operations and drought contingency measures</p>	<p>Talk to the locals, the people who have been there for decades, generations.</p> <p>They can tell you more about what happens under different conditions than through lived experience of water in the landscape than an engineer/researcher who based their work on a visit, once, in either a drought or after a storm, and a desktop review of a desktop review of a desktop review of a one off study in the 60s.</p>
<p>Action 1.4: Develop ongoing arrangements for participation of local Aboriginal people in water management</p>	<p>Community members, regardless of origins or ethnicity, can provide insight in water usage, attitudes, inefficiencies.</p> <p>Utilities and water managers need to consult more broadly with communities and seek their experience with their landscapes, community perception & attitude, and limitations around water.</p> <p>All communities & cultures have a connection to water in one way or another - whether it's traditional skills and use (fish traps or basket weaving), whether it's around community, family, and recreation, or whether it's the green front lawn.</p> <p>The need to be met by local participation is for water managers to understand, respect, and influence perceptions around water use, and create social changes in water use that will improve water use efficiency & catchment health.</p> <p>These are sociological factors and take time and conversation - engaging communities broadly will contribute to outcomes in all segments of the community, which will include a shared understanding and support Aboriginal cultural water uses.</p>
<p>Action 1.5: Support groundwater use for towns and communities</p>	<p>This can only proceed when the work on understanding the hydrology of the region is completed.</p> <p>While groundwater may support some improvements in water use efficiency, if the need to treat and filter is reduced, groundwater is not an infinite resource.</p> <p>The potential impact of removing more groundwater could be catastrophic for the aquifer and communities, not just in reducing water available in the aquifer, but also potential for ingress of saline water and reductions in groundwater flows.</p> <p>A research letter authored by Inge de Graaf, Tom Gleeson, L. (Rens) van Beek, Edwin Sutanudjaja & Marc Bierkens, in the Nature journal in October 2019 notes that “<i>Only a very small</i></p>

Action	Comments
	<p><i>decline in groundwater level is needed to alter streamflow”.</i></p> <p>We have all heard the stories of rivers that stopped flowing, lakes that disappeared, and wells that dried up in areas where there is a significant reliance on groundwater.</p> <p>If even a small percentage are true it points to the need to understand groundwater first, before investing time, funds, and expectations in a ground water solution.</p> <p>Investment here may consider desalinating groundwater - which may reduce salinity issues due to high water tables and deliver more groundwater options. The cost:benefit equation will be difficult, and will need to factor in the cost of lost agricultural production due to salinity.</p>
<p>Action 1.6: Investigate water security for small and remote communities</p>	<p>Water security will not just be driven by supply. The design and maintenance of the system will be important. Existing water supplies may be at the end of life or even lose water due to poor design.</p> <p>Expectations and attitudes around water use may need to change, which involves education and influencing.</p> <p>A simple project to introduce Xeriscaping may contribute to significant water savings (and contribute to action 3.4).</p> <p>A joint project between a landscape architecture school, Landcare, local schools and community groups, and Councils, with appropriately funded and resource co-ordinators and even potentially plants and materials may, in the short term, deliver water savings while longer term engineered solutions are considered.</p> <p>There needs to be an overall planning perspective in these investigations - including supporting people who might choose to relocate but it is not within their economic means, and considering the impact of those relocations on the communities that people choose to move from and to.</p> <p>Wellbeing must be a key driver. While some aspects of wellbeing can be measured, for example, material living conditions, other aspects require longitudinal monitoring and projections, the sustainability of the socio-economic and natural systems.</p> <p>Other aspects are around values & perceptions, quality of life, which will be influenced by education and the degree to which people feel they are making an informed choice, rather than an action imposed - improving perceptions of wellbeing.</p>
<p>Action 1.7: Investigate the need to further expand the</p>	<p>Improving the efficiency of the grid, reducing leaks and wastage, under-resourced and underskilled utilities managers, failing</p>

Action	Comments
regional water supply grid	<p>infrastructure, may contribute to savings and buffer low rainfall periods.</p> <p>The impact of any expansion of the grid must consider the potential that any take of water is a loss to the hydrology of the catchment.</p> <p>Without improving the understanding of the catchment and its hydrology this action has the potential for additional losses and damage.</p>
Action 1.8 Improve the understanding and management of groundwater resources in the Lachlan region	<p>Understanding groundwater is a critical component of any water plan.</p> <p>Without this understanding any other actions could undermine, not enhance, water security.</p> <p>Community can contribute significantly to the understanding.</p>
Action 1.9 Better integrate strategic land and water planning	<p>Planning, particularly in small Councils, is typically driven by short term budget forecasts and sunk costs.</p> <p>There must be investment in these processes with better resourcing and oversight of local government.</p> <p>Understanding community and culture aspects are key - short term convenience and cost savings, lack of long term planning, and insufficient investment in infrastructure will continue to lead to poor & negative outcomes for the environment, local economies, and community.</p> <p>Water is a part of strategic land & water planning - the smaller the Council, while integrated planning model may be referenced in plans, the less likely it is actually built into a long term strategic vision and implementation plan.</p>

Priority 2: Improve catchment health

Action	Comments
Action 2.1 Reduce salinity and soil erosion in the Upper Lachlan and Belubula catchment	<p>While erosion is a greater problem in the upper catchment area, salinity is evident anywhere the water table is close to the surface - after the extraordinary weather extremes of 2022 in the Lachlan catchment the water table is high.</p> <p>Understanding the connections between groundwater, surface water, and the inflows to the groundwater, including irrigation and council facilities is critical to addressing salinity over the entire catchment.</p>
Action 2.2 Protect and rehabilitate regionally significant riparian and instream habitats in the regulated Lachlan River	<p>Understanding our lake & wetland systems are an important part of this work. Not only do they provide key habitat, these systems act as natural filtration.</p> <p>Utilising these systems to drive natural capital enhancements, as a shared priority to their economic role in water management, tourism, and recreation, is important to overall water quality.</p>
Action 2.3 Upgrade and automate existing public re-regulating structures in the mid- and lower Lachlan to build the functional resilience of critical ecosystems	<p>A cynic might suggest this is about facilitating extractive water use.</p> <p>Ecosystems around water have eroded or developed as a consequence of these structures and, in some cases, their inefficiency.</p> <p>Sufficient work needs to be done to ensure that any upgrade or automation does not erode the value of key sites and at a minimum maintains the water available to manage catchment health</p> <p>Based on the cynics view, increases in extractive uses will impact groundwater systems - shifting where water enters groundwater, impacting groundwater levels & quality, and its interaction with surface water.</p>
Action 2.4 Mitigate the impact of water infrastructure and disruption of natural flows on native fish	<p>This strategy will involve engineered solutions. The opportunity that arises is to design, test, and implement Carp capture & exclusion systems.</p> <p>There is no expectation that Carp will be eradicated; any reduction in Carp numbers has a positive impact on water quality - as experienced at Lake Cargelligo during a period of commercial Carp fishing (a further potential contribution to action 3.4).</p>

Action	Comments
Action 2.5 Review and evaluate the Lake Brewster Water Efficiency Project	<p>Lake Brewster is a shallow ephemeral wetland system altered by engineering to become a water storage.</p> <p>While its contribution to Pelican breeding events and the reduction of black water events from Lake Brewster is undeniable, the contribution of this project to water efficiency is in facilitating extractive uses.</p> <p>Accordingly this action may be more appropriate in the Priority 1 or Priority 3 groups - inclusion in catchment health priorities might, in the eye of the cynic, be seen as green washing.</p>
Action 2.6 Support place-based initiatives to deliver cultural outcomes for Aboriginal people	<p>These will need to have sound oversight governance.</p> <p>It is not acceptable, in any segment of the community, to continue to resource organisations and programs that have not delivered outputs efficiently or effectively, and where there is little evidence of improved outcomes.</p> <p>Designing the outcomes, and determining the things that will evidence progress toward those outcomes, requires long term investment and monitoring.</p> <p>Practical, hands-on, support will be important.</p> <p>Governance models must include skills based roles, as well as being guided by roles based on community membership and acceptance.</p> <p>Accountability for delivery of outputs, conduct and ethics, and progress to outcomes, both at the local level, and the program level, is essential.</p>
Action 2.7 Support the development and implementation of the Lachlan Floodplain Management Plan and address floodplain structures	<p>Communities & landholders will be critical to understanding flooding and changes to flood behaviours - satellite images & engineering assumptions, and consultants and government agency staff on short term rotation are no substitute for decades and generations of experience of how water moves in a landscape and how that has changed.</p>

Priority 3: Support a strong and sustainable economy in a capped system

Action	Comments
Action 3.1: Improve public access to climate information and water availability forecasts	<p>While this may support decision making by well resourced organisations - large utilities, corporate farms - the behaviours of users whose experience of forecasting to date is that the forecasts are rarely reliable for decisions that need to be made months and years ahead, and often conflict with other information, may change little.</p> <p>To influence behaviours the project is not to just improve the quality and depth of information.</p> <p>The project needs to focus on increasing the <i>usefulness</i> of information - that means reducing overwhelm by communicating what is significant to the user, in a context that is meaningful to them, and a language they can decipher.</p> <p>Which means talking to small businesses, irrigators, and communities - directly. Look at user profiles, are there more small licence holders - talk to them. The large users may influence volumes, but they also have resources.</p> <p>Find out what the common user knows, and more importantly what they don't know.</p> <p>Not a phone survey, with questions designed to deliver a response in the context of existing policy or proposals.</p> <p>Talk to users at their office or kitchen table, with scenarios (if this, then what would you do) - after all, that's where the small users are making decisions.</p>
Action 3.2: Investigate water use in the Lachlan region	<p>Improving the understanding of how water is used in the catchment will improve modelling.</p> <p>A key piece will be understanding the use of water by extractive users that are not irrigators. Irrigator water goes on crops in defined and mapped areas.</p> <p>Other extractive users may take water at a given point, but how that water is used after the extraction point, particularly by Councils and local utilities, is critical in determining not just where the water is going and how it is being used, but also in ensuring that there is accountability for its use back to the community, local economies, and environment.</p>

Action	Comments
Action 3.3: Undertake a climate impact study	<p>Climate impact study scenarios must consider how changes in the way water moves, and is extracted and used, in the landscape might impact on groundwater and groundwater quality.</p> <p>The proposed studies should be kept at a preliminary stage until there is a better understanding of groundwater.</p>
Action 3.4: Support employment and business opportunities for Aboriginal people in the Lachlan region	<p>Connecting Aboriginal people to country & providing economic opportunities is an enormously desirable outcome.</p> <p>Getting it done requires a rethink of how these programs are delivered and an acknowledgement not just of ancient cultures and knowledge but also of the current social expectations and challenges of Aboriginal communities.</p> <p>Just creating a course, buying a uniform, some tools, and funding a range of consultants and Aboriginal organisations will get the budget acquitted, but it's unlikely to deliver meaningful long term economic opportunities for communities. This model has been repeated again and again, with little meaningful change for the community at large.</p> <p>This requires deep engagement and accountability across a range of government and non-government organisations (not for profits and consultants alike, especially consultants).</p> <p>It requires investment in listening, investment in process, investment in knowledge capture and wisdom generation, and accountability.</p> <p>Project and organisation governance needs cultural awareness, community, skills, and accountability.</p>
Action 3.5: Support system water delivery efficiency measures	<p>Key investments here will include repairing and renewal council and water utility assets, not just delivery to irrigation schemes.</p>

Created on	Country	Region	City	P1 Q1 - Your details - Email address	P1 Q1 - Your details - Name	P1 Q1 - Your details - Address
2023-11-12 13:44:32 +1100	Australia					

P1 Q1 - Your details - Phone number	P1 Q2 - Do you identify as an Aboriginal person:	P1 Q3 - Are you making this submission as an individual or as a representative of an organisation?	P2 Q3 - Do you agree that these are the priority water challenges for the Lachlan region that we need to focus on?	P2 Q4 - Please outline what you see as the priority water challenges in this region over the next 20 – 40 years?
	Choose not to answer	Individual	Yes	

P2 Q3 - Do you agree that these are the priority water challenges for the Lachlan region that we need to focus on?	P2 Q4 - Please outline what you see as the priority water challenges in this region over the next 20 – 40 years?	P2 Q6 - Priority 1: Build resilience to climate extremes	P2 Q7 - Do you have any comments on the proposed actions identified?
Yes		{ "Action 1.1 - Establish a coordination approach involving all levels of Government, to implement local council and town water-related actions under Priority 1": {"Do you support this action?": "Yes"}, "Action 1.2 - Support councils to improve flood risk management in the Lachlan region": {"Do you support this action?": "Yes"}, "Action 1.3 - Upgrade the existing hydrological models for the Lachlan catchment to better represent river operations and drought contingency measures": {"Do you support this action?": "Yes"}, "Action 1.4 - Develop ongoing arrangements for participation of local Aboriginal people in water management": {"Do you support this action?": "No"}, "Action 1.5 - Support groundwater use for towns and communities": {"Do you support this action?": "Yes"}, "Action 1.6 - Investigate water security for small and remote communities": {"Do you support this action?": "Yes"}, "Action 1.7 - Investigate the need to further expand the regional water supply grid": {"Do you support this action?": "No"}, "Action 1.8 - Improve the	please review attachment - all responses are qualified and not a simple "yes" or "no"

		understanding and management of groundwater resources in the Lachlan":{"Do you support this action?":"Yes"},"Action 1.9 - Better integrate strategic land and water planning":{"Do you support this action?":"Yes"}}}	
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P2 Q9 - Priority 2: Improve catchment health	P2 Q10 - Do you have any comments on the proposed actions identified?	P2 Q12 - Priority 3: Support a strong and sustainable economic prosperity in a capped system	P2 Q13 - Do you have any comments on the proposed actions identified?	P2 Q15 - Should any proposed actions in this second consultation document not be shortlisted and why?
<p>{ "Action 2.1 - Reduce salinity and soil erosion in the Upper Lachlan and Belubula catchment": {"Do you support this action?": "Yes"}, "Action 2.2 - Protect and rehabilitate regionally significant riparian and instream habitats in the regulated Lachlan River": {"Do you support this action?": "Yes"}, "Action 2.3 - Upgrade and automate existing public re-regulating structures in the mid- and lower Lachlan to build the functional resilience of critical ecosystems": {"Do you support this action?": "Yes"}, "Action 2.4 - Mitigate the impact of water infrastructure and disruption of natural flows on native fish": {"Do you support this action?": "Yes"}, "Action 2.5 - Review and evaluate the Lake Brewster Water Efficiency Project": {"Do you support this action?": "No"}, "Action 2.6 - Support place-based initiatives to deliver cultural outcomes for Aboriginal people": {"Do you support this action?": "Yes"}, "Action 2.7 - Support the development and implementation of the Lachlan Floodplain Management Plan and address floodplain structures": {"Do you support this action?": "Yes"} }</p>	<p>these are not simple "yes" or "no" questions</p>	<p>{ "Action 3.1 - Improve public access to climate information and water availability forecasts": {"Do you support this action?": "Yes"}, "Action 3.2 - Investigate water use in the Lachlan region": {"Do you support this action?": "Yes"}, "Action 3.3 - Undertake a climate impact study": {"Do you support this action?": "Yes"}, "Action 3.4 - Support employment and business opportunities for Aboriginal people in the Lachlan region": {"Do you support this action?": "Yes"}, "Action 3.5 - Support system water delivery efficiency measures": {"Do you support this action?": "Yes"} }</p>	<p>planning and process will be key in delivering actual outcomes</p>	<p>consultation of only one segment of the community</p>

P2 Q16 - Should any other options in this second consultation document be shortlisted and why?	P2 Q18 - Which actions should be implemented first and why?	P2 Q20 - I give my permission for my submission to be publicly available on the NSW Department of Planning and Environment website.	P2 Q21 - I would like my personal details to be kept confidential.
groundwater research	<p>Groundwater research - if we don't understand groundwater we can't begin to project the consequences of other proposals.</p> <p>A review of local government infrastructure, condition, & management - no matter how good the strategy at some point water needs to be managed at a community level. Policymakers and public asset and fund managers will need to factor in public utilities that are aging, poorly planned, and managed on a 'fix when fail' basis.</p>	Yes	No

P2 Q22 - Would you like to be kept updated on progress on the development and implementation of the Lachlan Regional Water Strategy?	P2 Q23 - Please provide your details below. - Email address	P2 Q23 - Please provide your details below. - Name	P2 Q23 - Please provide your details below. - Address	P2 Q23 - Please provide your details below. - Contact phone number	P2 Q24 - How did you hear about the Public Exhibition of this strategy?
Yes	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	Communication from peak body