



Submission to the Productivity
Commission on:

Five-year Implementation Review into
the Murray Darling Basin Plan

By:

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making every drop count

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1 Summary and Purpose

The Gwydir Valley Irrigators Association has provided this submission to the Productivity Commission (the Commission) for consideration as part of their five-year review into the implementation of Murray Darling Basin Plan.

The GVIA and our members, are members of the NSW Irrigators Council and National Irrigators Council and endorse the submissions made by both those organisations.

2 Introduction

The Gwydir Valley Irrigators Association (GVIA) as the representative body for irrigation entitlement holders in the Gwydir Valley and welcome the opportunity to provide our feedback to the Productivity Commission (the Commission) on the implementation of the Basin Plan in our region.

Environmental water management is not new in the Gwydir Valley, we have had environmental water in one form or another since the construction of Copeton Dam in the late 1970's¹. However, the sudden growth in the environmental portfolio from 2008 onwards with the purchase of licences by the NSW and Commonwealth Governments, significantly altered behavioural assumptions and influenced how the system operates, what environmental and economic outcomes could be achieved and how the community benefits from the sharing of water resources. The reform was difficult as the community was forced to adjust to a region with less water, as Government's entered the water market with a no regrets policy without any plan in place.

The Murray Darling Basin Plan² was finally agreed and since, then, the Gwydir has had more environmental water recovered than required by the Murray Darling Basin Authority modelling and legislation. This is confirmed in regular progress reporting water recovery for the Murray Darling Basin Plan³ that there is an additional 5,000 megalitres of water owned by Government's above the legislated amount for our region⁴.

Despite the opportunity that this water could create, neither the Australian Government or NSW Government have made any commitment to address this over-recovery and it has never been formally recognised. Stating the need for an accredited Water Resource Plan, to confirm the over-recovery before addressing it. Interestingly, these factors have not restricted the Australian Government in pursuing more water for the environment where an unreconciled gap is targeted for purchase via the bridging tenders just closed⁵. The inconsistency in policy approaches by Governments creates gross inequities between communities all trying to achieve the outcomes of the Plan. As indicated in your last review, over recovery and the increased risk of many other valleys being pushed well below Sustainable Diversion Limits must be addressed and new legislation considered to provide certainty to communities.

However, we remain frustrated that we cannot be considered a compliant region because the NSW Government has failed to have our Water Resource Plans executed. We participated and worked with the NSW Government over years to provide feedback and input into their planning programs and they have failed our region.

Due to the delays in Water Resource Plans, our over recovery could not be addressed. Now, its likely with severe under recovery in other elements of the Plan, our region will lose this water from production permanently. This is despite the Gwydir Valley not being able to contribute to any of the environmental outcomes which were determined by the Murray Darling Basin Authority to be achieved with the shortfall volumes.

¹ Refer to the section About the GVIA or visit our website for more information www.gvia.org.au/theqwydirvalley/theqwydirvalley .

² The Murray Darling Basin Plan.

³ <https://www.dcceew.gov.au/sites/default/files/documents/surface-water-recovery-including-sdlam.pdf>

⁴ The Gwydir Valley has met the legislative requirements of the Murray Darling Basin Plan of 42,000 megalitres of LTDLE entitlement for local/instream environmental outcomes and a further 7,600 megalitres for shared contribution to the northern basin. The NSW and Australian Government's hold 54,600 megalitres LTDLE entitlements³.

⁵ <https://www.dcceew.gov.au/water/policy/mdb/commonwealth-water-mdb/strategic-water-purchasing>

The continued focus on volumes not outcomes, by Governments will cost communities. Not only those in the Gwydir Valley, where the over recovery volumes are likely to be used to address shortfall elsewhere, without any consideration to our community. But also, communities right around the Basin who will be pressured to contribute more water to achieve volumetric targets without any consideration to the outcomes being needed. This will likely result in a misalignment of expectations and outcomes, putting communities at further risk of more water for the environment.

There is much to learn from regions like the Gwydir who have a long history of environmental water management and use, and at times, with good success⁶ delivering outcomes in line with desired environmental outcomes for our region and those downstream. For example, during the recent drought environmental water was available to keep key sections of our main river and refuge pools with water⁷. This was due to the planning program which allowed for a reserve of water during the drought for this purpose using water available due to the recovery of water for the Plan.

Further focus on the environmental targets and outcomes expected must occur to ensure this Plan can meet its objectives. For this, more than time will be needed. There must be flexibility in how the final elements are achieved to ensure enhanced environmental outcomes can be achieved. This mitigates the risk of more water being needed for the environment for communities right around the Basin.

However, there remains a lot of work to do to finalise the Plan and much of this is out of the control of industry and communities, as it sits with Governments. More must be done to ensure Governments complete their tasks, particularly given there is now an extension to the timeframes to be provided. Failure of Governments to implement their components, puts communities at risk of further water recovery when there are genuine alternatives available.

As we draw near to the completion of the Plan, we must continue to work collaboratively and engage genuinely to achieve real outcomes and for this we need more pragmatism from Government's to think beyond numbers and consider the outcomes needed.

The process moving forward will need leadership from all levels of government and must recognise that compromise will be needed and that there are limitations to what we can achieve and these need to be acknowledged or addressed.

We welcome the opportunity to provide further input if required.

2.1 Recommendations

1. Flexibility in how environmental outcomes can be achieved and contribute to the targets of the Basin Plan including:
 - a. Lease back and options contracts for water.
 - b. Enhanced fish screens and fish passage program.
 - c. Complementary measures targeted to specific environmental outcomes.

⁶<http://www.environment.nsw.gov.au/topics/water/water-for-the-environment/gwydir/annual-environmental-water-priorities>

⁷ Gwydir Refuge Pool Flow 2019-2020 <https://www.dcceew.gov.au/water/cewo/catchment/gwydir-valley-river-refuge-pool-flow>

2. Enhanced environmental measures program should remain within areas where the targeted to outcomes are located. Water from northern NSW Basin or Queensland cannot contribute to these outcomes and should not be considered.
3. A Northern flow reference committee, including irrigators, river operators, indigenous representatives and environmental water managers across NSW and Queensland to provide advice to environmental water managers on cross valley potential watering opportunities.
4. CEWO to further engage with landholders on third-party impacts of environmental water events.
5. Extreme event planning should occur for critical human needs and critical environmental needs to better prepare and mitigate extreme events.
6. Continuation of the Inspector General's role in monitoring compliance to the national water metering standards.
7. Options are canvassed from Aboriginal groups interested in cultural water entitlements and delivering and achieving cultural outcomes to progress the Aboriginal Water program. A trial of genuine proposals should be initiated to test the concepts.
8. Opportunities to enhance services such as medical, education and technology in regions impacted by water policy decisions should be made available to provide community support to transition to a region with less water.
9. Financial subsidies for new or existing businesses in regions impacted by water recovery should be provided to allow them to invest locally and diversify for example, deposit schemes to offset income variability, payroll tax incentives to attract and retain staff.
10. The Productivity Commission assess the implementation of their past reports recommendations and provide this to Ministerial Council as a report card of their effort to finalise the Basin Plan
11. Further independent oversight of the completion of the Basin Plan – particularly, constraints, the SDLAM and the 450 enhanced environmental efficiency measures to ensure states remain on track with their commitments.

3 About the GVIA

3.1 Our region

The Gwydir Valley Irrigators Association (GVIA) represents more than 450 water entitlement holders in the Gwydir Valley, centred around the town of Moree in North-West New South Wales. Our mission is to build a secure future for members, the environment and the Gwydir Valley community through irrigated agriculture.

The Moree Plains Shire region alone is highly dependent on agriculture and irrigated agriculture for economic activity contributing over 72% of the value of gross domestic product (cotton is around 60%), employing 20-30% of the population and accounting for almost 90% of exports from the Shire⁸.

The 2011 agricultural census estimates that the total value of agricultural commodities for the Moree Plains Shire region was \$911,951,079 up from \$527,744,851 in the 2005-06 census. This

⁸ Cotton Catchment Communities CRC Communities and People Series 2009

is an estimated 7.83% of NSW’s total agricultural production from a 1,040,021Ha principally used for agricultural crops⁹.

The Gwydir is characterised as having low water reliability with most water held as general security water with a reliability of 36% (that means irrigators could expect in the long-term just over a third of their entitlement can be accessed). Supplementary water entitlement is somewhat more reliable with 55% but accounts for less than a quarter of the total volume. Groundwater reliability is considered 100% but there is less than 30,000ML available. Floodplain harvesting licences were issued in 2022 and contribute almost a quarter of the water use in the region over the long term. However, access is episodic, in line with moderate to major floods.

The total volume of water available to be accessed by irrigators has been reduced significantly over time due to reforms as outlined below in Table 1: Summary of Water Reform. Entitlements owned for environmental purposes totals more than 186,000ML, which includes an Environmental Contingency Allowance of 45,000ML. The NSW and Commonwealth environmental water managers are now responsible for 28.5% of high security entitlement, 29% of general security entitlement and 13% of supplementary entitlement for environmental use. Despite environmental water being held in the Gwydir prior to the first water Sharing Plan. Environmental water is primarily used to contribute waterbird and fish breeding events and to maintain the condition and extent of the internationally recognised Gwydir Wetlands but as the portfolio has grown, so has the application and use of environmental water.

As a result, only approximately 19% of the total river flows are available for diversion for productive use¹⁰. This equates irrigators holding 575,000ML from regulated entitlement (high security, general security and supplementary water) and 28,000ML available from groundwater aquifers.

Table 1: Summary of Water Reform

Year	Program	Volume of entitlement
1970	Creation of replenishment flow	5,000ML
1995	Murray-Darling Basin 1993/94 Interim Cap established to limit future growth in access	
1996	Voluntarily reduced their general security reliability by 5%, by establishing the original Gwydir Valley Environmental Contingency Allowance (ECA) of general security equivalent water.	25,000ML General Security
2004	Gwydir Regulated River Water Sharing Plan further reduced reliability by 4%, primarily through increasing the ECA and enhancing its use and storage provision. Rules created for the WSP also reduced access, particularly to supplementary flow previously known as high flow.	20,000ML General Security

⁹ 2010 2011 Agricultural Census Report – agdata cubes, 71210D0005-201011 Agricultural Commodities, Australia

¹⁰ Based on IQQM long-term modelling and the volume of water purchased for the environment

Year	Program	Volume of entitlement
2006	Lower Gwydir Groundwater Source Water Sharing Plan reduced groundwater entitlements from 68,000 megalitres to 28,700 megalitres.	39,300ML Groundwater
2008 +	NSW State Government has purchased general security entitlement as well as supplementary for wetlands recovery programme.	17,092ML General Security 3,141ML Supplementary
	NSW Government infrastructure works	1,249ML High Security
	Commonwealth buy-back program.	88,133ML General Security 20,451ML Supplementary
2016	Commonwealth infrastructure programs.	4,508ML High Security 1,392ML General Security
2022	Licensing of Floodplain Harvesting in the regulated and unregulated water sources	24.8% reduction equating 10.4 GL long-term take
TOTALS		5,757 High Security 156,617ML General Security (including ECA) 23,592 ML Supplementary

The main broad acre irrigated crop is cotton with irrigated wheat, barley and Lucerne also occurring depending on commodity prices. The total broad acre irrigated area is approximately 90,000 ha (although recent analysis indicate that maximum planting area is now 70,000ha) but is rarely cropped in one year. In 2010-11 census data indicated the total production value of irrigated cotton was \$623M and is estimated to be worth three times that to the local community using the Cotton Catchment Communities Research Corporation economic multiplier for cotton regions¹¹.

Currently there are also pecans, walnuts, oranges and olives being grown within the region covering approximately 1,500 hectares and generating an estimated \$31M with considerable benefits to the local community as a high intensity, permanent crop. There is significant potential for expansion into horticulture and improvement in water utilisation but the area of expansion is limited by the availability of high security water.

Changes in water availability either through climate or government policy has a direct impact on the productivity of the region as well as on the local economy. Analysis by the Murray Darling Basin Authority highlighted this relationship during the northern review and revealed that for both Moree and Collarenebri social and economic indicators declined through 2001 to 2011 including education, economic resources and disadvantage, resulting in an estimated 200 jobs lost due to the implementation of the Basin Plan in the region¹².

¹¹ Social and Economic Analysis of the Moree Community, 2009. Cotton Catchment Communities CRC

¹² Refer to the Murray Darling Basin Authorities Socio Economic condition reports: https://www.mdba.gov.au/sites/default/files/pubs/630%20-%20NBR%20Community%20profile%20-%20Collarenebri_0.pdf

3.2 Our region's hydrology and geomorphology

The Gwydir River is an inland terminal river network that is also classified as “distributary” network by the Murray Darling Basin Commission back during water sharing plan development. This indicates that the rivers become a series of branching channels that distribute their flows across large areas especially during flood times (MDBC, 2007a). This distribution of water represents the watercourse areas of which the Gwydir has internationally recognised Gwydir Wetlands. There are four parcels of land within the Gwydir Wetlands that are listed under the Ramsar Convention on Wetlands (MDBA, 2010c).

This natural geomorphology means the Gwydir River under natural conditions would have a very low ability to contribute to surrounding catchment inflows. The State of The Darling Interim Hydrology report puts the average percentage flow of the Darling River from the Gwydir River to be 12%, although updated estimates have this percentage between 8- 7% as reported in the Independent Assessment of the 2018-19 Fish Deaths in the Lower Darling. The low contribution, which is consistent with other terminal wetland systems, is a result of most of the water within the system flowing towards the terminal wetlands and watercourse.

While the natural hydrology has been altered via modification of the river and operations with an increase in end-of-system connectivity since irrigation development. Flows are now “regulated down the Mehi, Moomin and Carole, which [can] join up with the Barwon River”⁵. This channelization and re-regulation occurred throughout the last century to initially deliver regular stock and domestic water supplies to users and then to deliver irrigation water more efficiently. However, even with these modifications there remains limited capacity to securely move water through these systems with channel constraints limiting the daily flows. That’s largely due to in-river flows being highly constrained by river channel limitations which are below 1000 megalitres per day on the Mehi constrained upstream at Bronte and 300 megalitres per day on the Gil Gil creek, these are the two main regulated systems that contribute to the Barwon River.

The relative contribution of the Gwydir is rather low, and the contribution is highly variable from year to year. For example, in 2016-2017 156,000 megalitres⁶ flowed into the Barwon following a spring cyclonic event causing moderate flooding in the mid-catchment but the following year 2017-2018 the contribution was 29,000 megalitres predominately because of environmental water⁷. Generally, the contribution occurs largely due to significant flood events such as in 2011-2012, 2016-2017 and to a lesser extend February 2020.

³ Based on IQQM long-term modelling and the volume of water purchased for the environment

⁴ Social and Economic Analysis of the Moree Community, 2009. Cotton Catchment Communities CRC

3.3 What we do

The GVIA's mission is to build a secure future for our members, the environment and the broader Gwydir Valley community through irrigated agriculture, we can do this together by making every drop count in the river or the aquifer, on-farm, for the environment, or for our community¹³.

GVIA members hold entitlements within the Gwydir regulated and un-regulated surface water areas, in addition to groundwater resources. All of which are managed through water sharing plans, which have been progressively developed since early 2000.

The GVIA organisation is voluntary, funded by a nominal levy, cents/megalitre on regulated, unregulated and groundwater irrigation entitlement. In 2022-23 the levy was paid and supported by more than 92% of the eligible entitlement (excludes entitlement held by the NSW and Commonwealth governments).

Much of the activity of the association revolves around negotiating with government at a Federal, State and Local level to ensure the rights of irrigators are maintained and respected. While the core activities of the Association are funded entirely through the voluntary levy, the Association does also undertake programs to maintain and improve the sustainability of members on-farm activities and from time to time, undertakes special projects, which can be funded by government or research corporations.

The Association is managed by a committee of a minimum 11 irrigators and employs a full-time executive officer and a part-time administrative assistant, as well as hosting a Project Officer funded through the Cotton Research and Development Corporation, the Gwydir Valley Cotton Growers Association and the GVIA.

The GVIA and its members, are members of both the National Irrigators Council and the NSW Irrigators Council.

3.4 Contacts

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¹³ For more information, see our corporate video on <https://vimeo.com/177148006>

4 Key Questions

4.1 Bridging the Gap

What needs to change to ensure water recovery targets are met and that supply and efficiency measures are delivered? What lessons can be learnt from past experiences?

We note that Federal Water Minister Plibersek, announced her intention to extend the timeframes for remaining elements of the Plan. Whilst we welcome this extension to remove the imminent risk on other communities to rapidly recover more water, what this extension may cost to achieve as part of the political negotiations is a major concern for our valley.

The process to 'bridge the gap' between current baseline diversion limits (BDL) and sustainable diversion limits (SDL) have to date largely focused on the acquisition of quantifiable volumes of water of a reliable and permanent nature. While this provides a highly secure portfolio for the Commonwealth Environmental Holder (CEWH), it is not the only approach to meet specific environmental outcomes.

The Gwydir Valley had most of water recovered through buy-backs and the socio-economic impacts were substantial¹⁴ as whole-farms sold their licences and irrigated hectares for the valley declined by between 25-30%. In communities like Moree, Collarenebri and Mungindi that are agriculturally dependent and rely on irrigation to provide a baseline of economic growth through poor seasons, as well as peak production when water availability is high there are direct and indirect impacts to removing water from production. For this reason, there is no water recovery process that removes water from the productive pool that can have a neutral socioeconomic impact. Only projects outside this defined area (improving efficiencies for town water supply, industrial or stock and domestic uses) could be considered as neutral but they would still require assessment.

However, the water market can provide several products which would allow environmental water managers to meet environmental outcomes without needing the expenses of purchasing entitlements or funding the associated long-term costs. This could involve:

- Temporary allocation purchases;
- Temporary purchase of individual extraction rights;
- Conditional lease arrangements; or
- Storage leases.

These options could provide the CEWH the added flexibility they need to specifically target an environmental outcome on an event or seasonal basis.

¹⁴ Refer to the Murray Darling Basin Authorities Socio Economic condition reports: https://www.mdba.gov.au/sites/default/files/pubs/630%20-%20NBR%20Community%20profile%20-%20Collarenebri_0.pdf, https://www.mdba.gov.au/sites/default/files/pubs/630%20-%20NBR%20Community%20profile%20-%20Moree%20HR_0_0.pdf, https://www.mdba.gov.au/sites/default/files/pubs/630%20-%20NBR%20Community%20profile%20-%20Mungindi_0_0.pdf

Secondly, there are other alternatives to achieve environmental outcomes through proactive complementary measures. For complementary measures similar to those planned and being implemented in the Northern Basin (under the Toolkit Programs), a movement away from held licenced entitlements, towards non-flow measures is necessary if the Australian Government is to achieve either the SDLAM or 450GL to enhance the environmental outcomes for the southern connected systems.

For example; the fish screening program in the northern toolkit.

- The Gwydir project was over-subscribed. With the funding available, there will be 16 sites, 49 pumps, ~2,944 ML/d implemented, and given the scientific literature should protect ~925,000 native fish per year. These sites will compliment other activities to improve fish passage in the northern basin such as the Macquarie program.
- The Macquarie River Screening Program, funded by the NSW Government, is well underway and predicted to protect 885,000 native fish every year.

Together, these two examples of complementary measures indicate that the north is well on the way to protecting 2 million native fish every year, with 3 million on the horizon.¹⁵ A significant step towards restoring the environmental health of the basin.

There is still enormous potential to be achieved from complementary measures, imagine the possibilities for fish, if improved passage at Menindee Lakes could be created and screens along the Southern Basin could be installed how many fish could be protected?

Recommendation: Flexibility in how environmental outcomes can be achieved and contribute to the targets of the Basin Plan including:

- **Lease back and options contracts for water.**
- **Enhanced fish screens and fish passage program.**
- **Complementary measures targeted to specific environmental outcomes.**

However, governments must remain focussed on the outcomes targeted rather than just bridging the gap. The intention to expand the Enhanced Environmental measures program (450GL) was confirmed upon review of the 31 March 2023 recovery table³ that included the 450 GL of environmental/efficiency measures across all Murray Darling Basin catchments, not just the southern connected catchments where the modelling was undertaken to establish this part of the Basin Plan.

Given the purpose of the 450GL program which is clearly outlined in Schedule 5 of the Plan and backed up by modelling by the Murray Darling Basin Authority which focuses on the southern Basin and South Australian floodplains, expanding this across all states and catchment seems at odds with the intended outcomes and rather a political fix to an environmental problem. This is highlighted by the suggestion to allocate over recovery volumes, which cannot effectively contribute to Schedule 5, to this program will diminish the environmental outcomes being proposed for SA under the Basin Plan.

The Gwydir Valley is a highly variable, terminal wetland catchment in northern NSW. The Menindee Lakes is the first regulating structure downstream, it is 800 kms from the Gwydir

¹⁵ Email from NSW DPI Fisheries May 2023 about Fish Screen Project outcomes.

valley and a further 500 kms from the SA lower lakes. NSW does not protect held environmental water from upstream catchments once it reaches Menindee Lakes. Therefore, even if environmental water from northern catchments reached the Menindee Lakes, it cannot directly contribute the targeted environmental outcomes in SA.

There is no practical or legal requirement, for the northern Basin catchments to contribute to the enhanced environmental measurement program. The GVIA therefore, do not support the transfer of over-recovered water to the 450GL enhanced measures.

Recommendation: Enhanced environmental measures program should remain within areas where the targeted to outcomes are located. Water from northern NSW Basin or Queensland cannot contribute to these outcomes and should not be considered.

4.2 Are the current arrangements working?

Are the current arrangements for implementing the Murray-Darling Basin Plan operating effectively? How could the arrangements be improved? The Commission is particularly interested in the effectiveness of the arrangements for:

- *developing, accrediting and reporting on water resource plans*
- *water quality*
- *critical human water needs*
- *environmental water planning and management.*

4.2.1 Water Resource Plans

Whilst the Gwydir effectively operates according to the rules of the Basin Plan, despite the fact we do not have an accredited Water Resource Plan and therefore are not fully compliant. The failure to finalise the WRPs is significant concern for our members.

Nonetheless, the water sharing plan has provided the foundation to ensure the sharing of water, maintenance of water quality and prioritisation of water for critical human needs.

4.2.2 Critical Human Water Needs

The actions by the NSW Government to restrict water access during the recent drought is their way for securing critical human and environmental needs during extreme drought. Whilst we do not support temporary restrictions as enduring solutions, we recognise the priority of access for critical needs during extreme droughts.

NSW Government has agreed to further work on establishing a rules-based system rather than ad hoc and non-transparent process that was extensively implemented with significant consequences to upstream water users, during the last drought. See our submission into the First Flush report.

4.2.3 Environmental management and planning

In our region, local implementation of the Basin Plan is an extension of those processes in place for the local water sharing plan and have continued to mature over-time as relationships, the science and local knowledge builds. We welcome the approach to recognise and respect local planning processes and input.

However, as the priorities and outcomes have shifted over time, from local wetland focused outcomes to broader environmental outcomes and a focus, downstream. With this in mind, there still remains a missing element of cross valley planning and communication. We raised the need for another platform to engage stakeholders and seek advice outside the valley specific processes in the last review. To date, we have been informed that there is an interagency group but that this remains the business of government.

We believe there still needs to be a northern flow reference committee, including irrigators, river operators, indigenous representatives and environmental water managers across NSW and Queensland to provide advice to environmental water managers on potential watering opportunities. The group would also be a formal communication pathway for updating stakeholders on actions and outcomes of environmental watering events across the northern basin.

Recommendation: A Northern flow reference committee, including irrigators, river operators, indigenous representatives and environmental water managers across NSW and Queensland to provide advice to environmental water managers on cross valley potential watering opportunities.

Given the significant environmental events experienced in the northern basin in the last five years with the Menindee Fish Deaths in 2019 and 2023, localised fish deaths due to blackwater more planning and prevention by environmental water managers in conjunction with river operators should occur. Whilst blackwater events cannot be avoided, they can be predicted, and management decision made to reduce their impact. Planning for these natural and devastating events, should be part of the environmental water managers consideration.

Understanding the potential negative impacts of environmental water management should also be undertaken as the use of environmental water has not always been beneficial. For example, the third-party impacts of environmental water use in the Gwydir Valley with the changing river conditions post the 2021 flooding resulted in more than 22 landholders being flooded out in an attempt to reach a RAMSAR listed site in the western portion of the Valley. The impact was significant to those landholders, including members of our organisation who could not operate their farms effectively due to the environmental water flowing through their property and isolating one of their irrigation developments from their infrastructure.

Recommendation: CEWO to further engage with landholders on third-party impacts of environmental water events.

Recommendation: Extreme event planning should occur for critical human needs and critical environmental needs to better prepare and mitigate extreme events.

4.3 Monitoring, Evaluation and Compliance

Have the governance and institutional arrangements for the Plan – including the arrangements for compliance and monitoring, evaluation and reporting – proved effective? What changes would you recommend?

The GVIA supports Basin-wide consistency of compliance but is increasingly concerned that with the Inspector General, there maybe a duplication of roles resulting in further costs to water users. Institutional arrangements must be clear on the hierarchy of compliance and monitoring and evaluation with the States responsible for individual of local scale, a

requirement for valley scale and the Federal Government oversight of valley scale and basin-scale issues. The criticism that NSW remains un-policed because the Water Resource Plans is incorrect given the state-based requirements in place for individual and valley scale compliance through water licence conditions that are regulated BY THE Natural Resources Access Regulator and the water sharing plans, checked by the Murray Darling Basin Authority under cap reporting requirements.

Objective and factual discussion on the state of water measurement, metering and water take compliance is welcomed by the GVIA. While the non-urban metering reform has had its barriers and challenges, recent reporting by NRAR indicated 90% of the larger than 500mm pump sit cohort were compliant or on a pathway to compliance.

Whilst there is much to be learnt from NSW interpretation of the National Metering Standards, it is imperative that there is Basin-wide consistency and an agreed minimum level of monitoring and compliance to ensure there is public confidence right around the Basin.

The GVIA remain concerned about who and how the agencies will monitor, identify and manage growth in environmental use under the SDL and Plan Limit approach, when environmental behaviours are largely unknown. If irrigators and environmental water users, are to respect each other's right to use water then there must be strategies by which their behaviours cannot impact others in the system.

Recommendation: Continuation of the Inspector General's role in monitoring compliance to the national water metering standards.

4.4 Climate Change

How well is the Plan responding to a changing climate? How should this be improved?

The Gwydir is a low reliability water catchment and evolved to manage water resources, based on cycles of wet and dry. There are the two extremes observable at both ends of the water spectrum, with more intense droughts and floods over the last 16 years of the Basin Plan's development and implementation.

However, much greater recognition needs to be given to how the existing water allocation system already manages climate change and variation. The calculation of available water determinations using worst case inflow scenarios address climate variability. When there are no minimum inflows or no base flows, allocations are not provided. When minimum inflows are met, essential needs and baseflows provided then allocations are provided on a sharing arrangement between water licences and their priority.

This arrangement shares the risk between licences based on priority, with lower reliability products like supplementary, floodplain harvesting and unregulated users bearing the greatest risk. Other entitlement holders such as general security users, can manage their risk through carryover account rules allowing them to bank water during good seasons to be used later.

Because of the of the current hierarchy priority of allocations, these entitlements, whether held by the environment or productive users, bare the risk.

However, in extreme droughts in NSW at least, the environment is delivered the higher priority requirement, outside the current water framework, through the establishment of

temporary water restrictions. The GVIA do not see this as an enduring solution to extreme periods of drought and therefore, recommended as part of the Inquiry into the First Flush 2020 to transition towards a rules-based system that shared the risk or at least, didn't disproportionately impact productive users.

In NSW the adoption of the full climate record as opposed to the Plan's defined climate record ensures that a more recent record of climate variability is used to determine the long term average annual extraction limit and monitor take to be within that limit. For example, the Gwydir Valley's model was recently updated for the determination of floodplain harvesting licences with climate information to 2020 and the Lower Gwydir Groundwater model was also recently updated to 2022.

We therefore consider that NSW management systems consider the most current climate information and share the risk, of changes in climate through the framework and monitoring.

4.5 Cultural Water Interests

How well is the Plan addressing the interests of Aboriginal people?

The GVIA notes there has been little progress on the program to purchase water entitlements for cultural water uses. There is also a broad interpretation of what is considered cultural water; its purposes, governance arrangements and beneficiaries, whether it can be used for economic purposes and or traded. There may never be an agreed position to all groups and this should be recognised.

These differences should not continuously delay progress and could be tested with a willingness from Governments. Including exploring options to be more involved in environmental water management and planning, to determining specific use of environmental water, which can be aligned with targeted environmental outcomes could make progress towards addressing the interests of Aboriginal people without the purchase of entitlements.

If cultural water entitlements are needed, it should be achieved through the water market as demonstrated by the purchasing of productive water for environmental purposes. We note there a range of opportunities not just permanent purchase arrangement available.

Recommendation: Options are canvassed from Aboriginal groups interested in cultural water entitlements and delivering and achieving cultural outcomes to progress the Aboriginal Water program. A trial of genuine proposals should be initiated to test the concepts.

4.6 Consultation and Engagement

How well has community consultation and engagement been conducted? How can this be improved?

The CEWO provide regular and informative information on their intentions, actions and outcomes of environmental water use and should be congratulated on their effort. They have listened to feedback and improved their communication and engagement. The provision of regional staff is also important component of their engagement.

The MDBA have been working to engage with the community regularly through their river reflection program which provides an opportunity for a region in the Basin to be highlighted.

This forum was recently held in Narrabri and was well received. Whilst the information may not have been new, the event created the opportunity for a diverse range of stakeholders to visit a part of the Basin and hear about what the Plan means to them is invaluable. The provision of regional staff also provide a local go to person on issues which has been beneficial for two way communication without travelling to Canberra.

The DEECW have not listened to feedback over the years. More recently at the MDBA River Reflections conference, they appeared aloof and without interest in answering the questions and concerns raised with them. The recent consultation on the buy-back tenders their engagement and consultation was deplorable and disrespectful to the communities in which they were trying to engage and communicate with.

4.7 Structural Adjustment

What lessons should be learned from programs aimed at helping communities adjust to the Plan?

As we previously wrote to the Productivity Commission, the GVIA consider that the funding provided through the Murray Darling Basin Economic Diversification Fund has been ineffective. While the GVIA does not discredit the value of projects being funded, not considered significantly impacted by the Basin Plan received funding under the program as they are located 'in the Basin'.

Not to mention that the value of traditional support packages appears to be diminishing as the regulatory requirements of accepting that support somewhat out-ways the financial benefit.

We therefore support investment into genuinely impacted communities but ask governments to consider the approach in which support is provided. For example, improving access to technology, addressing mobile blackspots, coupled with funding for business re-locations, expansions or new business enterprises could provide longer lasting benefits than investment opportunities to- date.

The economic opportunity that returning the volume of over-recovery of environmental water to the productive pool would provide to help stimulate long-term economic growth for future generations.

Recommendation: Opportunities to enhance services such as medical, education and technology in regions impacted by water policy decisions should be made available to provide community support to transition to a region with less water.

Recommendation: Financial subsidies for new or existing businesses in regions impacted by water recovery should be provided to allow them to invest locally and diversify for example, deposit schemes to offset income variability, payroll tax incentives to attract and retain staff.

4.8 Best Available Science

Does the implementation of the Plan reflect a commitment to the best available scientific knowledge? How well is this knowledge communicated? What improvements should be made?

We support the use of best available science to inform decision makers but acknowledge, there are often other factors that are considered when Government's make a decision. This is reflected by a triple or quadruple bottom line approach, whereby the cultural, economic, environmental, and social elements are considered as part of the decision framework. Understanding how government's weight these factors, whether there information is current and the best available, being used in their decisions is important and currently, lacks transparency.

5 General Comments

The GVIA has welcomed this opportunity to provide this submission to the Productivity Commission, as we have the previous other opportunity in 2018. We are disappointed that despite the effort the Productivity Commission to provide well considered, objective feedback on the implementation of the Plan in their final report in 2018, that Governments have largely failed to implement many of the recommendations.

We as with so many others, of a diverse set of interests provide significant amount of time and effort in progressing and finalising the Basin Plan but feel, our efforts are in vain when Government's fail to act on their responsibilities.

We recommend that the Productivity Commission assess the implementation of their past reports recommendations and provide this to Ministerial Council as a report card of their effort to finalise the Basin Plan. This could also be used to hold the states to account for their role in completing elements of the Plan.

Recommendation: the Productivity Commission assess the implementation of their past reports recommendations and provide this to Ministerial Council as a report card of their effort to finalise the Basin Plan

We recommend that more regular progress reporting on the key elements of the Basin Plan is objectively undertaken by the Productivity Commission. Allowing the commission, the opportunity to be an independent umpire for the Government agencies. Their failure to commit to the full amount of 605GL for the SDLAM projects and meet the minimum requirements of the 450GL, put communities at risk of further buy-backs through no fault of their own.

Recommendation: Further independent oversight of the completion of the Basin Plan – particularly, constraints, the SDLAM and the 450 enhanced environmental efficiency measures to ensure states remain on track with their commitments.