GVIA

Gwydir Valley Irrigators Association Inc.

Submission to: NSW Department of Planning, Industry and Environment - Water

"Draft Gwydir Regional Water Strategy"

By:

Gwydir Valley Irrigators Association Inc

[redacted]

making every drop count

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1 Summary and Purpose

This document has been developed by the Gwydir Valley Irrigators Association (GVIA) on behalf of its members as a formal submission for consideration by the NSW Government during their consultation on the Draft Gwydir Regional Water Strategy

This document aims to represent the concerns, views and experiences of our members, not as individuals but as a local industry. Each member reserves the right to express their own opinion and is entitled to make their own submission.

Every member of the GVIA is also a member of the NSW Irrigators Council and as such we endorse their submission unless clearly outlined otherwise.

2 Introduction

The Gwydir Valley Irrigators Association (GVIA) as the representative body for irrigation entitlement holders in the Gwydir Valley and supports the preparation of the Regional Water Strategy to provide a clear vision for our region and is needs now and into the future around water.

When considering new information and ways to balance competing interests, we agree with the overarching principles set by the Regional Water Strategy Framework being: Community and town water supply, economic prosperity, environmental benefit and cultural values.

We recognise that the proposed list of projects is a first draft of proposals that to be implemented will require extensive investigation, consultation and negotiation and mitigation of impacts. Every project identified presents risk and benefits but that we must undertake firstly a rapid then thorough assessment of these prior to determine their feasibility. We have not provided direct comment or support on projects, other than to suggest new projects and focuses. We reserve the right to be provided further information about projects prior to determining our position.

We encourage the thorough assessment of all projects, included those suggested by ourselves and others, plus further consultation on how to integrate projects to achieve multiple benefits.

We recommend that projects that are already committed under other programs or agreements such as the northern toolkit measures, are clearly highlighted and can be included in cumulative assessments of projects.

We do request the NSW Government in their assessment identified within the draft strategy, also considers the principles contained within this submission. In summary these are:

- Prioritising long-term solutions for town water supplies to ensure they are robust.
- Prioritizing efficiency measures to improve or maintain reliability and deliverability.
- Sharing of risk between water users.
- Integration of solutions.
- More transparent risk-based approach that balances long and short-term planning with tools to manage extreme events and better aligns risk and consequence with uncertainty.
- Adoption of a beneficiary pays pricing system.

If regional water strategies are to become the future planning program then the NSW Government should seek to align finalised water strategies with other strategies within government to achieve the best value for investment, this being infrastructure investments, technology programs. Ideally the water strategy should form a component of a broader regional strategy covering social, economic and cultural development of our regions.

We look forward to continuing to work with NSW on preparing a strategy for our region.

2.1 Our region's economy

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 its 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 Shire[1].

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 is an estimated 7.83% of NSW's total agricultural production from a 1,040,021Ha principally used for agricultural crops[2].

2.2 Our region's water availability and use

Copeton Dam is a 1,300GL headwater storage capturing 45% of the Gwydir Valley's inflows. The dam accounts for dam losses, essential supplies including town water supplies, high security and stock and domestic water, an environmental contingency allowance and general security entitlements and the delivery of those entitlements and are allocated in that order of priority.

Water Sharing Plan rules reserve approximately 7% capacity for essential supplies including high security water which is secured for 2-years in advance. Essential supplies usage is between 1-2% total water use annually and has never not been delivered, although its delivery has been limited to specific bulk releases to manage losses as was undertaken in 2019-20. Any changes to either the reserve or the usage patterns of this water, directly impacts the lower priority water users including the Environmental Contingency Allowance, which make up the vast majority of shares to water in Copeton Dam.

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.

The triggering of supplementary sharing rules which are any flows downstream of Copeton Dam up to 500 megalitres per day, are designed to protect base-flows for the river and the wetlands, with any and flows above the minimum threshold are shared 50:50 with the environment. These rules provide natural connectivity of water sources within our region and downstream, when inflows occur. Changes to the Water Sharing Plan proposed as part of Water Resource Plan development allow for environmental water managers more authority over where the 50% share of any flow maybe delivered, providing more scope for additional environmental benefit.

Our region's irrigators recognise as historically having access to overland flows a function of the natural hydrology of the valley. This is an irregular but important source of water for the industry accounting for up to a third of the long-term water used by the industry.

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

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[1] Cotton Catchment Communities CRC Communities and People Series 2009

[2] 2010 2011 Agricultural Census Report – agdata cubes, 71210D0005-201011 Agricultural Commodities, Australia

Reform. Entitlements owned for environmental purposes totals more than 186,000ML, which includes an Environmental Contingency Allowance (ECA) 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.

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
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
TOTALS		5,757 High Security 156,617ML General Security (including ECA) 23,592 ML Supplementary

As a result, only approximately 19% of the total river flows are available for diversion for productive use[3]. This equates irrigators holding 575,000ML from regulated entitlement (high security, general security and supplementary water) and 28,000ML available from groundwater aquifers.

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 regions[4]. For more information on the long-term production trends of cotton in the region visit the Gwydir Cotton Growers website www.gwydircotton.com.au.

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 it 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 region. These years correspond with overland flow opportunity in the region as well, indicating that floodplain harvesting and downstream connectivity are not mutually exclusive of each other as often suggested.

2.3 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

[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

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 megalitres[6] 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 water[7]. Generally, the contribution occurs largely due to significant flood events such as in 2011-2012, 2016-2017 and to a lesser extend February 2020.

The limited connectivity of the Gwydir River to surrounding catchments must be taken into consideration when prioritising projects and policies.

2.4 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 community[8].

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 2016-17 the levy was paid and supported by more than 84% 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

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[5] State of The Darling Interim Hydrology report, MDBC 2007

[6] End of system calculations from Water Balance Reporting by NSW Government

[7] Independent Assessment of the Lower Darling Fish Deaths

[8] For more information, see our corporate video on https://vimeo.com/177148006

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.

2.5 Contacts

Gwydir Valley Irrigations Association

[redacted]

[redacted]: [redacted]

[redacted]: [redacted]

3 General Comments

3.1 Principles

The GVIA supports the foundation elements of the National Water Initiative and as we learn through implementation, accept there is opportunity to improve upon these original commitments.

When considering new information and ways to balance competing interests, we agree with the overarching principles set by the Regional Water Strategy Framework being: Community and town water supply, economic prosperity, environmental benefit and cultural values.

We consider these following principles also important when considering changes to policy settings or projects within the region that have the potential to impact availability to water now or into the future.

We support the hierarchy of the NSW Water Management Framework and a focus on priorities and investigation of projects that improve security of water for town water supplies. However, we strongly encourage the need to establish long-term solutions or permanent alternatives to current unreliable water sources. Undertaking emergency measures on a

consistent basis is undermining the confidence of communities. Such programs should be a priority when regions are not in drought, avoiding the crises of many towns everywhere in NSW, experiencing extreme water shortages and water quality issues during the most recent drought.

We support a focus on priorities and investigation of projects that maintain or enhance the delivery of water in an efficient way for critical needs, known as essential supplies in our region. Recognising however that there are operational constraints within our region due to our geomorphology and the ephemeral nature of our effluent rivers and creeks.

We support priorities and investigation of projects that maintain or improve the integrity and reliability of the entitlements that exist and that any perverse impacts to long-term supply through specific rules or projects must be mitigated or compensated. We urge caution in burdening general security or supplementary entitlement holders with further risk without an opportunity to regain opportunities foregone, given the low reliability of these water sources already.

We recognise that the Gwydir Valley is water limited, now and in a changing climate. Any priorities or projects will therefore impact our communities, industry and the environment and we should not unduly burden one group.

We support priorities and investigation of projects that integrate solutions to provide the best opportunity for multiple benefits but acknowledge that increases the risk for unintended consequences. Projects should not be considered in isolation but also in combination with existing or planned regional investments, like infrastructure or technology to enhance any value.

We support a transparent risk-based approach that balances long and short-term planning with tools to manage extreme events. Rules provide clarity and certainty for users and communities, but this does not preclude there being a range of targets or levels of risk to be consulted and considered. There is also no reason why a range of responses to achieve these targets/risk can also be adjusted against the degree of criticality of these targets, aligning risk and consequence more appropriately rather than the blunt and blanket approach used during the First Flush earlier in 2020. For example, if core needs require target 1 to be achieved but its agreed there is also desirable but not as critical benefit with a higher target, being target 2, then you may enforce more conservative assumptions until target 1 is met and relax this approach and monitor up to target 2.

To achieve an approach like this that attempts to better algin risk and consequence with uncertainty, a difficult discussion on what is critical versus desirable, in times of drought would need occur. This would help to build a stronger more robust management framework and move away from relying on on-going extreme measures such as S.324 Temporary Water Restrictions within the Water Management Act to manage for drought for instance.

We support the movement towards a beneficiary pays system to reflect societies change values toward water. Impactor pays pricing framework was established following the pro-development era of water management and as society moves away from this, subsequently requiring more water for a growing population as well as demanding water for other needs the pricing framework must also adjust. This will be increasingly important if future climate change scenarios materialise.

3.2 Existing projects and measures

Reforming the policy settings for productive water users is on ongoing agenda in NSW, since the first Council of Australian Governments agreement in 1994. However, forward planning and implementation for changes in population, demand for water from different users and planning for critical water supplies when there is limited water has been limited. Generally any response is ad hoc following a crisis.

However, if the Regional Water Strategy are to become the future planning program to fill this identified gap then they must clearly account for other foreshadowed reforms and projects, to ensure ideas and projects are not double accounted but also there is consistency in approach. The current list of projects should be adjusted to highlight those already considered to be funded by government (either state or Federal) and/or underway.

The NSW Government should seek to align finalised water strategies with other strategies within government to achieve the best value for investment, this being infrastructure investments, technology programs. Ideally the water strategy should form a component of a broader regional strategy covering social, economic and cultural development of our regions.

3.2.1 Existing reforms

We assume for the purposes of this strategy that implantation of new metering rules, the licencing of floodplain harvesting including implementation of legal limits, monitoring, reporting and compliance, targeted active management of environmental water and implementation of the Basin Plan Sustainable Diversion Limits is achieved.

3.2.2 Northern Basin Toolkit and Gwydir Constraints

There is little public information regarding the projects, objectives and timelines of the northern basin toolkit measures. These measures are not a statutory requirement of the Basin Plan but are desired measures to maximise the environmental benefit from the use of held and planned environmental water.

The toolkit also includes a proposal to address some of the constraints in the Gwydir Valley to improve environmental delivery. It is not clear if this proposal also looks at delivery constraints more generally in the region.

Greater clarity on these measures is needed prior to finalising the strategy to ensure that assumptions about their likelihood of implementation can be made when considering cumulative benefits of strategies.

3.2.3 Existing and proposed rules for connectivity and resumption of flow (as outlined in our submission to the draft report on the Independent Assessment of the 2020 Northern Basin First Flush)

Following recent events such as the 2020 Northern Basin First Flush, there is evidence to suggest there is a lack of understanding by decision makers and the broader community on the existing rules within water sharing plans to provide sharing of flows. This coupled with a lack of understanding of risk, in terms of daily access arrangements across the various forms of water access including floodplain harvesting meant that the conservative, broad ranging assumption was made that northern basin water sharing plans would fail to provide connectivity or water downstream.

This flawed assumption is frustrating considering the GVIA is aware that the NSW Government and multiple Federal and State Agencies had access to their commissioned research into the Northern Basin Stocktake Report, which was finalised in around June 2019. Whilst our request to access this document was refused, it was promoted to agencies as part of that Better Management of Environmental Water (which includes the Commonwealth Environmental Water Office and the former NSW Office of Environmental Heritage) to be adopted as part of their planning consideration and document database for water management[9].

An internal stocktake of northern Basin regulated water sharing plan reveals that there are a range of specific sharing rules that provide simple volumetric or percentage sharing arrangements to flows, that were designed to allow for base flow or connectivity for critical needs.

These rules are for unregulated events; for unregulated streams these are commenced to pump triggers but in the regulated system, unregulated flows below the headwater storages are managed as supplementary events. Northern basin supplementary rules are summarised below.

Macquarie – objective to deliver to marshes as priority downstream of Warren

Supplementary trigger is more than 5,000ML/day over weir at Warren (plus any orders) and can be predicted. The trigger provides for full capacity of 4000ML/day and losses to the Macquarie Marshes. Water must flow through the marsh to make it downstream.

Any flows above 5,000GL are shared between, as environment gets first 5,000ML. But any flow greater than 12,000ML/day will send water down effluents or to marshes as above capacity.

Border Rivers – volumetric trigger plus ratios for sharing with NSW:QLD:environment

Supplementary trigger must be 10,000ML over two days upstream of Goondiwindi (Macintyre, Brook and Dumaresq) and is passed over the Mungindi weir.

25% of total flow to environment.

Remaining 75% shared 50:50 between NSW:QLD. Flows greater than 27,000ML/day will provide more to the environment, either downstream or into smaller effluents.

Majority of valley inflows are supplementary events due to dam location (30% of catchment represented in catchment dams).

Gwydir – volumetric trigger with sharing, flows focussed on wetlands

Supplementary trigger occurs when flows greater than 500ML/day at Pallamallawa/Gravesend with a 50:50 share between the environment and water users.

[9] Meeting minutes of the Better Management of Environmental Water Group access by GIPA.

Limited stream capacities – 900ML/day at Bronte on the Mehi and 300ML/day on Gil Gil. Flows greater than 20,000ML/day upstream of Pallamallawa on the Gwydir cannot be managed and go to the wetlands.

New rules allow for the direction of the not extracted share of supplementary events to be directed by discretion and planning of the environmental water managers, which can be to wetlands or other streams.

Namoi – multiple scenarios for triggers which are volumetric and event based.

Simplified (summarised) version provides a supplementary trigger if less than 90,000ML in Dam and flow trigger is 500ML/day, if more than 90,000ML than at a minimum 1,000ML/day must flow down the end of the system (lowest gauge measure) but the starting trigger for individual sections, varies down the stream from 5,000ML/day flow to 1,500ML/day flow protecting an estimated 66% of the upstream triggered flow.

Flows are also then is shared 10% to irrigators between July-October (90% environment) and then 50% from November to June.

There are also the overarching extreme events restrictions in the water sharing plans for the Namoi, Gwydir (Mehi, Moomin and Carole and Gil Gil inflows) and Border Rivers which link to the targets in the Barwon Darling. These rules were the interim north-west flow plan rules (no referred to as Schedule 1 restrictions) which were established in the pre-water sharing plan days to provide for basic landholder rights, algal bloom management and fish passage. The requirement for these were largely superseded with water sharing plans and the establishment of supplementary flow rules rather than previously unregulated, high flow access conditions.

During the early periods of the water sharing plan, these rules were often not implemented largely because Broken Hill's water supply requirements of a reserve of 200,000ML resulted in upstream temporary restrictions anyway.

Schedule 1 targets are:
The requirements of the Interim Unregulated Flow Management Plan for the North West are:
(a) a flow of 14,000 megalitres per day (hereafter ML/day) in the Darling River at Brewarrina for 5 consecutive days, or 10,000 ML/day in the Darling River at Bourke for 5 consecutive days, during the period September to February inclusive, providing two such flow events have not already occurred during that period in that water year, Note.This subclause is intended to provide opportunity for the passage of fish across the major weirs in the Barwon-Darling River.

(b) a flow of 2,000 ML/day in the Darling River at Wilcannia for 5 consecutive days during October to April, inclusive, providing flows of this quantity have not already been reached during the preceding three months within the October to April period, and

Note.This subclause is intended to protect flows needed to suppress blue-green algae blooms.

(c) a flow of:
(i) 150 ML/day in the Darling River at Wilcannia,

(ii) 280 ML/day in the Darling River at Louth,

(iii) 390 ML/day at in the Darling River at Bourke,

(iv) 550 ML/day at in the Darling River at Brewarrina, and

(v) 700 ML/day in the Barwon River at Walgett.

Note.This subclause is intended to protect flows needed to meet basic landholder rights requirements in the Barwon-Darling.

Further to these existing rules, the draft Water Sharing Plan for the Barwon-Darling Unregulated Water Source had proposed resumption of flow rules, specifically developed to address first flush events. These rules are a combination of daily and cumulative flows at specific trigger points.

There continues to be a miss-conception that northern water sharing plans do not provide connectivity, despite the existence of these rules since 2004 and others like the interim North West Flow Plan since the 1990's. The draft Water Resource Plans for these regions clearly articulate these rules as well. Perhaps it's important that there is clearer identification of the existence and benefits of these rules as part of the Independent Panel's report and NSW ongoing discussions around water management.

Any future projects or policies must clearly recognise the existing range of rules that exist and their operation and benefit prior to redesign.

4 Projects

4.1 Proposed projects

The GVIA recognises that the proposed list of projects is a first draft of proposals that to be implemented will require extensive investigation, consultation and negotiation and mitigation of impacts. Every project identified presents risk and benefits but that we must undertake firstly a rapid then thorough assessment of these prior to determine their feasibility. We are essentially at the beginning of a journey not the end.

We therefore will not provide support for or against any project at this point in time. We reserve the right to be provided further information about projects prior to determining our position.

We encourage the thorough assessment of all projects, included those suggested below and the integration of projects to achieve multiple benefits.

We recommend that projects that are already committed under other programs or agreements such as the northern toolkit measures, are clearly highlighted and can be included in cumulative assessments of projects.

We do request the NSW Government in their assessment identified within the draft strategy, also considers the principles contained earlier within this submission.

4.2 New projects for consideration

As outlined earlier a focus on prioritisation and projects should reflect the need to provide long term solutions to supply and efficient delivery of water firstly for essential needs then for other water users including the environment. For this reason, we propose the following additional projects:

Town Water Supply

- Investigation of improved town water supply options for Bingara within the Gwydir Shire which is the closest town downstream of Copeton Dam but regularly on water restrictions.
- Investigation of improved town water supply options for Weemelah within the Moree Plains Shire which currently uses an off-river storage pumped from a regulated water licence but has been at risk of no water during the recent drought due to deliverability constraints as the river was not kept flowing below the Carole Creek regulator. This supply is also believed to be a critical water source for firefighting.
- Investigation of improved town water supply options for Collarenebri within the Walgett Shire Council at the western boundary of the Gwydir Valley. This water source is not supplied by a regulated water licence but rather unregulated flows within the Barwon River and long-term alternatives should be considered given the recent water quality and supply issues during the drought.

Stock and Domestic

- Expand stock and domestic pipelines for farms that initially did not participate or seek alternative options to provide emergency supplies.

Essential Supply

- Investigation of a small capacity, in-stream mid-Gwydir River storage to provide additional fish refuge as well as efficient supply for high security users within the system. Location near Trawalla.
- Include the option for a pipeline from the proposed Gravesend dam for high security and other critical essential needs, to ensure efficiency of delivery.

River Operations Projects

- Investigate an alternative option to enhance the proposed Tarelaroi Weir to capture and store up to 20,000 megalitres of water in-stream (or nearby) to improve river operations, minor flood mitigation and enable improved operation of the Mehi regulator and drought contingency supply options.

Water Sharing Plan Rules

- Further consultation on strategies to improve the management and operation of low flows or resumption of flows, as discussed in the Independent Assessment of the Northern Basin First Flush including accepting the need for a stronger framework embedded in local water sharing plans.
- Definition and discussion around how the public interest test is also applied. Repeated requests for establishing clear guidelines and assessments in the public interest have been undertaken of various levels of government. There remains a lack of clarity around decisions in this manner that must be addressed.