

Gwydir Valley Irrigators Association Inc.

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Submission to NSW Office of Water

Draft Water Sharing Plan for the Gwydir Unregulated and Alluvial Water Sources

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Introduction

The Gwydir Valley Irrigators Association (GVIA) represents in excess of 250 irrigators in the Gwydir Valley of NSW, centred on the town of Moree, NSW.

The organisation is voluntary, funded by a cents/megalitre levy on regulated unregulated and groundwater irrigation entitlement. In 2010/11 the levy was paid on in excess of 90% of the eligible entitlement (excludes entitlement held by the State and Federal Government).

The Association is managed by a committee of 11 irrigators and employs a full-time executive officer and a part-time administrative assistant, as well as hosting a Regional Landcare Co-ordinator.

GVIA welcomes the opportunity to make this submission to the NSW Office of Water regarding the Draft Water Sharing Plan for the Gwydir Unregulated and Alluvial Water Sources. We would like to acknowledge the NSW Office of Water's flexibility in allowing an unofficial extension of the submission date for comments regarding this water sharing plan.

GVIA in preparing this submission has made a number of general comments and recommendations regarding the process utilised in developing and communicating this water sharing plan but have also made comments and recommendations on specific parts of the plan identified in the table of content but not all.

Information presented within this submission ultimately aims to ensure that the entitlement held by all water users within the valley is not adversely impacted by the implementation of this water resource plan including:

- Reliability of water;
- Access to water;
- Equity between users; and
- Free market development.

GVIA recognises that there are minimal concerns regarding the overall plan but a number of key issues that must be addressed in a new version with an opportunity for public comment, prior to any Water Sharing Plan for the Gwydir Unregulated and Alluvial Water Sources being gazetted. We look forward to continue working with NSW Office of Water on the next version of this plan.

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General comments and recommendations

Gwydir Valley Irrigators Association (GVIA) welcomes the preparation of the final water sharing for the Gwydir valley, as a means to providing certainty to water users regarding their entitlement. However, the first impression of the release of this Draft plan and the initial communication regarding suggested that the plan's release and public exhibition may have been rushed.

This inappropriate timing of the release also added to the sense that the roll-out was rushed. This was further reinforced by a perceived lack of preparation in developing key areas of the plan and community consultation. It is these factors that GVIA believes are the root causes of many of the public concerns raised regarding this draft.

Timeline

The minimum timeframes for formal exhibition periods within Water Management Act (2000) NSW, do not account for the practicality of our industry. The timing and timeframes were unsuitable to many water users within the valley who were either planting summer crops or harvesting winter crops, or both during the public exhibition time. This resulted in many water users finding that there was inadequate time between the announcement of community consultation meetings and formal submission periods. This problem was exacerbated following the need to hold a second follow-up meeting in Moree to discuss specific issues, as this shortened this timeframe further.

To NSW Office of Water's credit they agreed to informally extend the submission period but have not sort a formal extension from the Minister. GVIA has also not yet sort a formal extension, however as there remain a number of outstanding concerns that are not addressed at the time of writing this submission we request that there is further public consultation on the subsequent draft version of this water sharing plan prior to its formal acceptance.

Community awareness

To GVIA's knowledge, there was very few unregulated water users aware of the plans release or of the community consultation meetings proposed. A survey of GVIA members revealed that in some cases regulated users were informed via written correspondence but not unregulated users. As NSW Office of Water maintains the public registers on all licence holders, GVIA would expect that these records are firstly accurate and secondly, are utilised to ensure that the appropriate water users are identified and contacted.

Furthermore, it is also essential that all water users within the plan area are informed regardless of any assumptions that the plan will not impact them.

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Each water user has the right to be made aware of any changes to the regulatory framework around their water entitlement.

A broad spectrum of awareness techniques should also be considered in the event that one methodology is not sufficient as evident by the poor attendance at community consultation meeting. To GVIA's knowledge, there were no advertisements or media noted in the local papers to raise awareness of the plan's release and public exhibition period.

GVIA would also like to remind the NSW Office of Water that as an Association, we represent more than 250 water users within the Gwydir Valley and as such, is also a useful avenue to distribute information on your behalf to these water users.

Community consultation

GVIA was unable to attend the initial rounds of community consultation as the Executive Officer was on leave at the time. However, members of the Association did attend and the feedback received was not entirely positive.

Those in attendance were frustrated by the lack of information that was prepared and the accuracy of that information presented. This fuelled concerns and miss-conceptions regarding the purpose of the plan and further suggesting that the roll-out was somewhat rushed.

NSW Office of Water staff were amenable when approached with this feedback and committed to an additional meeting to address the concerns raised, particularly those raised at the Moree meeting on September 20. We also acknowledge the unofficial commitment to extend the submission timeframe so that this additional meeting could be held.

However, a key information request of the NSW Office of Water by attendees was not completed prior to the second follow-up meeting. A review of licence information will be required to accurately capture the baseline licence conditions contained within the plan. But because this was not undertaken this submission is based on unqualified licence information that maybe out-dated and as a result, GVIA reserves the right to amend this submission following a review of licences within the plan area by NSW Office of Water.

Water sharing plan interface

An overall oversight of the draft plan and the cause of much confusion was that it does not clearly articulate the interrelatedness of the Water Sharing Plan for the Gwydir Regulated Water Source and the Gwydir Unregulated Water Source. The draft unregulated plan attempts to account for the shepherding of regulated planned environmental water and Environmental Contingency Allowance (ECA) water, although it is not explicit nor does the unregulated plan highlight how the two plans interact.

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It is recommended that a section within the introduction be included to outline the regional water sharing plan context and interface, highlighting how other water sharing plans impact this unregulated plan and vice a versa.

Plan development

It could be argued that the interagency panel and the interagency regional panel models utilised to prepare and review water sharing plans are inadequate in capturing the full suite of issues and are not representative of all stakeholders involved and affected by the process. As such, it should be considered by NSW Office of Water that irrigation industry representation is included on this panel in addition to river operations organisations, like State Water in this instance. Such representatives would provide additional insight into the practicalities that water sharing plans will have on water users and will help to balance social, economic and environmental objectives of water sharing plans.

By including these representatives in earlier phases of the plan development process, would also help to alleviate many of the abovementioned concerns and comments regarding the planning approach utilised.

In particular, an irrigation industry representative should also be useful in helping to identify ways to improve community engagement in water sharing planning.

Comments and recommendations on specific plan sections

Part 1 Introduction

A section within the introduction should be included to outline the regional water sharing plan context and interface, highlighting how other water sharing plans impact this unregulated plan or vice a versa. For example, how:

- planned environmental water from the Regulated system feeds into the Gwydir and Gingham Unregulated Water Source; or
- access is can be restricted under the Interim Unregulated Flow Management Plan for the North West; or
- unregulated water feeds the Barwon-Darling Water Source.

GVIA also recommends that the registered map needs to be clearer in its presentation of the water sharing areas and to also include the water management zones for the upper Gwydir, Moredun Creek, Copeton Dam, Halls Creek, Mehi River and Gwydir River are presented on the map.

Part 2 Vision, objectives, strategies and performance indicators

This part of the draft plan is overly generic with high level statements that are not specific to the aim of this plan or to the water uses that this plan describes. GVIA accepts that this section needs to be consistent with all state water sharing plans, however the vision, objectives and hence strategies and performance indicators should be further reviewed and contextualised so that they are regionally specific and relevant.

As indicated the performance indicators of this plan are un-specific but more importantly, lack measurable components which will undermine the effectiveness of any future understanding of the plan's success. In reviewing performance indicators it should be considered that they should be specific in time and space and measurable. For example only:

- This plan provided an average of 518.6 ML/year of water for basic landholder rights during the review timeframe (date to date); or
- This plan provided for the delivery of planned environmental water as delivered through the Water Sharing Plan for the Gwydir Regulated Water Source to each of the Gwydir and Gingham systems during the review timeframe (date to date).

Part 4 Planned environmental water provisions

There are a number of planned environmental water provisions clearly outlined within the plan, including:

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- Planned environmental water delivered by the Water Sharing Plan of the Gwydir Regulated Water Source; and
- Water that remains in either the unregulated water source or the alluvial groundwater source following available water determinations.

However, what the plan lacks is a framework for the monitoring and/or measurement of this water and any detail on the outcomes to be achieved through the allocation of such water to the environment.

This section needs to be improved upon and it must also be specifically referenced within Part 2 Vision, objectives, strategies and performance indicators.

Part 5 Requirements for water

GVIA does not have any specific resources available to them to assess the accuracy of the water requirements outlined within the draft water sharing plan and therefore, can neither agree nor disagree with the numbers provided. However, GVIA does question the process utilised to determine these numbers for both the unregulated and alluvial groundwater water sources.

GVIA initially assumed that NSW Office of Water ground-truthed their assumptions of water requirements presented within this plan. However, due to the use of out-dated licence data presented in Water Source Report Cards it is apparent that ground-truthing was not undertaken as part of the development of water requirements within this plan. This was later confirmed by NSW Office of Water staff in the follow-up community meeting in Moree on October 27.

As a result, GVIA believes it is essential that this task be undertaken to test assumptions and gather accurate background information prior to the release of the next version of this water sharing plan. An outline of the process utilised to undertake ground-truthing should also be provided as an appendix to this water sharing plan.

It is important to note that it was this exact ground-truthing task prioritised on the Gingham and Gwydir systems that was specifically requested to be completed during community consultation initial on September 20 and further again on October 27. At the time of writing this submission, GVIA is not aware that this action has been completed and requests that this is completed prior to the release of the next version of this water sharing plan.

Part 6 Limits to the availability of water

In general this section is clear and detailed in identifying the processes by which water availability is limited and GVIA does not have any immediate concerns regarding the process of identifying available water determinations.

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However, the section lacks evidence supporting the claims within the water sharing plan regarding the long-term extraction limits and the interconnectivity of the alluvial groundwater sources in particular. There is no reference to any modelling undertaken to determine either of these limits, assuming that such investigation has been made. GVIA recommends that such evidence is provided for review as to substantiate the values provided and to allow for a more thorough assessment of the values and the process of making available water determinations can be assessed.

GVIA also recommends that a long-term annual extraction limit for the unregulated water source is more clearly identified and open for discussion.

In the first continental-scale ecohydrological classification of natural flow regimes for Australian Rivers, Kennard et al (2009)¹ classed the Gwydir region as unpredictable intermittent (Class 7) flow regime and indicated that this flow pattern was generalised that the eastern upper headwaters of the Murray-Darling drainage system. The classification was based on multiple hydrologic metrics describing the key ecologically relevant flow regime using discharge data from a large set of minimally disturbed stream gauges located throughout the country.

Streams classed as unpredictable and intermittent (class 7) are characterised by intermittent flows with low constancy of flows, intermediate base flow contributions and intermediate runoff magnitudes. Such streams are considered to be highly variable with a very low predictability, characteristics which accurately describe many of the unregulated streams within the Gwydir valley.

It is these exact characteristics why the six-year timeframe for the assessment of average annual extractions against the long-term average extraction limit is not representative of typical conditions (if such conditions can be determined in these systems). Therefore, these averages should be extended to at least 10-year periods to account for this variability and unpredictability.

Part 8 Rules for managing access licences

Division 1 Water allocation account management rules

As described above, due to the highly variable nature in terms of flow rate and flow duration of unregulated river systems which is highly dependant on where the off-take or measurement points are located within the Gwydir valley, the water allocation account management rules, in particular the

¹ M.J. Kennard¹, B.J. Pusey¹, J.D. Olden², S. Mackay¹, J. Stein³ and N. Marsh⁴. Appendix 5: Ecohydrological classification of Australia's flow regimes, in Ecohydrological regionalisation of Australia a tool for management and science by Brad Pusey, Fran Sheldon, Mark Kennard, Mike Hutchinson for Land and Water Australia.

timeframe for assessment of averages are not representative of the real system.

The review period for assessing water extractions should be increased to 10-years with the total volume that can be extracted limited to a maximum of 1000% of the share component for that period with no more than 500% used in any one year, including:

- The sum of all water allocations (re-credited or otherwise determined); and
- The sum of any water assignments or transfers.

Therefore, the adoption of a 1000% extraction allowance in ten-years essentially removes the need to allocate carryover rules which impede market flexibility and simplifies the accounting rules. It also encourages market flexibility whilst delegating responsibility to individual water users to manage their risk in regards to complying with this rule.

GVIA does not have any concerns regarding the access rules for the alluvial groundwater sources.

Division 2 Flow classes and daily access rules

It is accepted that the flow classes and daily access rules being proposed within the plan aim to allow for planned environmental water from the Gwydir Regulated Water Sharing plan to achieve environmental objectives within the Gwydir and Gingham water sources. GVIA supports the efficient and effective implementation of the Gwydir Regulated Water Sharing plan rules but not support the undermining of water users rights to access licence entitlement.

The locations proposed for flow reference points and the flow classes within this plan, will directly impact water user's rights within the Gingham and Gwydir systems. Due to the flow duration within these systems, by the time water reaches the proposed flow reference points at the Gingham Bridge (for the Gingham system) and Millewa (for the Gwydir system) all available water would have been distributed down the system, undermining water users ability to access water and rendering these licences useless. This is precipitated in the Gingham system especially, with the a slow and highly variable travel time affected by changing channel constraints by weed infestations, which would result in no water being available to upper system users unless in prolonged wet or significant flood events.

It is important for GVIA to also note that it has made this assessment and the following recommendations based on the licence information and distribution provided in the Water Source Report cards, which was the best publically

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available information at the time. Due to comments outlined earlier, GVIA is aware that this information is not accurate in showing the current distribution or purpose of licences within the systems in question nor has it been quantified through ground-truthing. As a result, GVIA reserves the right to review the practicality of these recommendations following the public release of ground-truthed licence data, as requested within this submission.

The Gingham and Gwydir systems should be re-zoned into upper and lower zones, as delineated by the location of the wetlands in the Gingham system and the end of the regulated water sharing plan in the Gwydir system.

The Gingham system:

- Upper Zone: starts at the end of the Gwydir Regulated Water Sharing Plan (tyreel weir) and the Gingham Bridge as the end of that zone;
- Lower Zone: starts at the Gingham Bridge and finishes as described within the plan.

The Gwydir system:

- Upper Zone: begins at tyreel regulator long the length of the river until the end-point of Gwydir Regulated Water sharing plan, which is also the end of the upper zone. However, this zone does not include the land adjacent to the Gwydir River (which is regulated) for 200m from the mean water level of the Gwydir River.
- Lower Zone: begins at the end-point of Gwydir Regulated Water sharing plan and finishes as described within the draft plan.

Currently, there is no gauging station at the end point of the Gwydir Regulated Water Sharing plan in the Gwydir system; rather it is registered as the north-western boundary of portion 27, parish of Gin, County of Bernaba. The closest gauging station is the Millewa Bridge, which could be utilised in the short term. However it is paramount to consider that a gauge is installed at the legally defined end-point of the Regulated Plan as a means of monitoring and measuring the effectiveness of both this unregulated plan but more importantly the regulated plan.

With the systems re-zoned, GVIA recommends amendments to the flow rules and classes.

The Gingham proposal aims to address the flexibility in potential licence locations and the known channel constraints and delivery times within that system.

Catchment	Upper Zone	Lower Zone (post wetland)
Gingham Very Low Flow	<ul style="list-style-type: none"> • Less than 250ML/day² measured at the nearest downstream gauging site³ to licenced off-take 	<ul style="list-style-type: none"> • No visible flow measure at off-take.
Gingham A Class Flow	<ul style="list-style-type: none"> • Greater than 250ML/day measured at the nearest downstream gauging site to licenced off-take. 	<ul style="list-style-type: none"> • Visible flow measured at off-take.
Gingham ECA Class Flow	<ul style="list-style-type: none"> • Greater than the announced ECA flow (ML/day) measured at the nearest downstream gauging site to licenced off-take but less than the known channel capacity at that point⁴. 	<ul style="list-style-type: none"> • Visible flow measured at off-take.
Gwydir Very Low Flow	<ul style="list-style-type: none"> • No visible flow measured at off-take. 	<ul style="list-style-type: none"> • No visible flow measured at off-take.
Gwydir A Class Flow	<ul style="list-style-type: none"> • Visible flow measured at off-take. 	<ul style="list-style-type: none"> • Visible flow measured at off-take.
Gwydir ECA Class Flow	<ul style="list-style-type: none"> • Greater than the announced ECA flow (ML/day) measured at the nearest downstream gauging site to licenced off-take but less than the known channel capacity at that point. 	<ul style="list-style-type: none"> • Visible flow measured at off-take.

² Assuming an equal allocation of planned environmental water between the Gingham and Gwydir systems.

³ Gauging stations should be included within the plan.

⁴ Chanel capacities should be determined and included in the plan for the relevant gauging stations.

An additional flow class “the ECA Flow Class” should also be considered to allow for the when ECA flows are being distributed down the systems. This allows the ECA flexibility in where ECA water is distributed and does not assume that water is split evenly between the gingham and Gwydir systems. It is proposed that a supplementary like announcement system is utilised to inform water users of the proposed ECA flow event; its rate and duration and the temporary announcement of new access limits set at that identified rate for that timeframe.

The benefits from this ECA flow rule are three-fold:

1. Increased reliability and accountability that ECA flows are delivered to meet their desired objective as set by the ECA Operational Advisory Committee;
2. Increased community awareness regarding the release of ECA flows; and
3. Increased transparency among water-users regarding the release of ECA flows.

In proposing the above ECA Flow Class, GVIA is not recommending that measuring or assessment of ECA flows within the nominated zones to meet the announced flow rates and duration but rather acknowledges that these flows must be allowed to dissipate down the system following their release from Copeton dam. The ECA delivery point to be managed by the river operators must remain as the last measurable delivery point on the Gwydir Regulated River Water Source.

GVIA also recognises that flow rates and access rules have been established for pools and lagoons within the unregulated system. Although GVIA does not disagree with these rules outright, we do however recommend that NSW Office of Water undertake a desktop assessment of these pools and lagoons and be more specific in identifying their location and existence for the purposes of possible trade of water licences. Such a desktop assessment may also help to inform future management documents and environmental management of the river systems.

Part 10 Access licence dealing rules

The limit to trade outside water sources is adversely restricting the development of a free and equitable water market and limiting opportunities for the market to manage the distribution of water licences into the future.

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Due to the unknown status of sleeper licences within the unregulated system, such a rule may also result in additional pressure on the system, if these licences are activated and cannot be transferred.

A two-stage approach to managing trade within the Gwydir unregulated system should be adopted. This would include:

1. Five-year trade limited period: where trade is allowed intra water source and for inter-source trade is subject to an application and assessment on connectivity between water sources by NSW Office of Water.
2. Unrestricted intra and inter-water source trade: following the completion of the five-year period and the development of share component caps (or maximum number of shares) for each water source, identifying what water sources and how much water can be traded in and out. This matrix should also be expanded to identify which water sources have hydrological connectivity and where the share component caps do not apply.

GVIA strongly believes that there is hydrological connectivity between water sources within the Gwydir unregulated system, especially around confluences off the main Gwydir River. This connectivity is not uncommon in inland terminal river networks like the Gwydir that become a series of branching channels that distribute their flows across large areas especially during flood times. As such, trade should not be restricted where hydrological connectivity can be assessed.

Part 11 Mandatory conditions

GVIA worked with the Government at the time to develop the National Water Initiative (NWI), which in addition with individual business practicalities, is another of the main driving forces for the GVIA in the support for implementation of standardised and accurate metering.

GVIA cannot more strongly advocate for the continued modernisation of metering within our valley and fully supports the adoption of accurate metering that meets consistent nationally adopted standards. GVIA would encourage the NSW Office of Water to further encourage compliance on this matter in the implementation of this water sharing plan.

Conclusion

Gwydir Valley Irrigators Association (GVIA) has welcomed this final chapter in completing water resource plans for the Gwydir Valley. However, this submission highlights a number of key concerns which should be addressed prior to the release of the next version of this draft plan.

GVIA also strongly encourages NSW Office of Water to undertake another round of public consultation following a review of all submissions received and the development of the revised version of the water sharing plan. This additional step in public consultation would also help to improve regional awareness regarding the future implementation of this plan but also to allow for NSW Office of Water to complete allocated tasks as requested by the concerned community members, specifically the ground-truthing of licences. Further consultation may also continue to help alleviate the genuine misconceptions behind the aims and objectives of this water sharing plan.

The unpredictability and unreliability of unregulated systems within the valley should be more thoroughly represented in this water sharing plan through increasing the accounting rules and review periods.

There are also substantial recommendations within this submission regarding the proposed flow classes and access rules, especially those nominated for the Gingham and Gwydir Systems. These are practical alternatives following the realisation that the rules currently proposed would ultimately render entitlements in sections of those systems unusable.

GVIA strongly rejects the concept of no-trade out of water sources and as a result has recommended that further work is undertaken on trading opportunities based on hydrological connectivity and need.

GVIA would welcome the opportunity to continue to work with NSW Office of Water to continue to improve upon this draft water sharing plan and we would be more than willing to continue to host further community consultation session on this plan. Ultimately, GVIA wants to ensure the development, implementation and monitoring of a logical and practical water sharing plan that achieves real and measurable outcomes for all water users and stakeholders.

Submission ends..

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