Email address	[redacted]
Name of respondent	[redacted]
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Individual
Proposed changes to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016	
Do you have any comments on the proposed change to increase the maximum volume of water that may be held in a water allocation account in the Upper Namoi at any time be increased to 1.5 ML per unit of share component specified on the respective access licence?	The fish are dying, we need more regular flow and less periods of no flow
Do you have any comments on the proposed change to restrict water trading from Lower Namoi to Upper Namoi due to different reliability of these sources?	I don’t support water trading for profit by those who have no intention to use it. Theoretically water trading makes economic sense but in practice it is causing more issues than it solves.
Do you have any comments on the proposed amendments to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016?	More flow for rivers please, they are dying, encourage the use of water to grow more water efficient crops

Proposed changes the Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010	
Do you have any comments on the proposal to establish standardised EWAG's (Environmental Water Advisory Groups) in the Peel Regulated River?	No
Do you have any comments on the proposed amendments to repeal temporary water trading provisions that allow water trading from Peel Regulated Water Source to Lower Namoi Water Source?	I support restrictions
Do you have any comments on the proposed change in the conversion factor to be consistent with transmission losses, and maintain compliance with Murray Darling Basin Plan?	No
Do you have any comments on the proposed amendments to the Water Sharing Plan for the Peel Regulated River Water Source 2020?	More consistent flow for rivers, less periods of no flow please
Proposed changes to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012	
Do you have any	Disagree with water trading for profit if it was never

comments on the proposed change to allow limited water trading between the unregulated water sources within the Namoi and Peel WSP area where third party and environmental impacts can be quantified and deemed acceptable?	intended to be used
Do you have any comments on the proposal to change the Cockburn cease to pump reference from gauge height to volume and the location of the reference site be moved to 50 m downstream side of the existing location?	No
Do you have any comments on the changes proposed to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012?	No
Response to chapter 4: Environmental water, cultural flows and sustainable management	
Do you have any comments on the protection of environmental water?	It is important
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about	Social media

the opportunity to make a submission?	
Additional Information	
Please tick the relevant boxes	I consent to my “submission” being published on the department’s website and wish to maintain my privacy by having my name withheld from the submitter's list. Please note that any emailed attachments you may have provided and any personal information that has been included in the attachment will be published.

SUBMISSION: NAMOI SURFACE WATER RESOURCE PLAN

Context

The Commonwealth Environmental Water Holder (CEWH) appreciates the opportunity to provide a submission on the draft Namoi Surface Water Resource Plan (draft Namoi WRP) and accompanying documents.

This submission is made in the context of potential risks to the CEWH's statutory responsibilities, and proposes strategies to mitigate residual risks, consistent with the risk-based approach embedded within the Basin Plan (Chapter 10, Part 9). The CEWH's statutory responsibilities regarded in formulating this submission include:

- the *Water Act 2007* and Basin Plan 2012, to protect and restore priority environmental assets and ecosystem functions of the Murray-Darling Basin;
- the *Public Governance, Performance and Accountability Act 2013* (PGPA Act), to ensure the efficient and effective use of Commonwealth resources (held environmental water); and
- advice regarding Matters of National Environmental Significance protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), including wetlands of international importance (Ramsar wetlands), listed threatened species and endangered ecological communities and species of migratory waterbirds protected under international agreements.

Issues raised within this submission have also been raised within the CEWH's submission to the Natural Resource Commission in review of the Water Sharing Plan for the Peel Regulated Water Source.

Structure of the submission

Part A: Catchment specific issues

1. Active management of held environmental water
2. Planned environmental water
3. Review by the Natural Resources Commission
4. Operational strategies and transparency
5. Other matters

Part B: State-wide issues

6. Extreme events
7. SDL non-compliance
8. Conversion of licences
9. Monitoring, reporting and accounting
10. Water Quality Management Plan

Part C: Clarifications and corrections

Appendix A: *Active Management in Unregulated Rivers* - CEWH submission on the draft policy paper

PART A: CATCHMENT SPECIFIC ISSUES

1. Active Management of held environmental water

The CEWH acknowledges the positive work of the Department in progressing the Water Reform Action Plan. The Plan proposes practical measures for creating an operating environment intended to support the protection of held environmental water (HEW) through active management across unregulated water sources areas; our response on the draft policy paper for *Active Management in Unregulated Rivers* (draft NSW Active Management policy) is attached to this submission.

Recommendations are provided below to support the implementation of active management arrangements relevant to the Namoi-Peel water sources, to provide for the effective and efficient use of HEW and enable environmental watering between connected water resource areas.

Supporting connectivity within and between water sources

Environmental water released in the Peel River from Chaffey Dam is not protected beyond the junction with the Namoi River where it is re-regulated as water available to meet downstream water orders. The impact of this is that less water is available for contributing to river health improvements in hydrologically connected downstream environments. HEW that is added on top of natural flow events to maximise its effectiveness for environmental outcomes, is currently able to be legally pumped by water licence holders under supplementary (Namoi) and uncontrolled (Peel) flow rules.

Water access licenses recovered for the environment provides additional flow in the river that would not have been previously available for downstream extractive use. Protecting HEW between river systems ensures that the benefits from the use of environmental water can be maximised throughout both the Peel and Namoi rivers without reducing the water available for other license holders.

There are currently no provisions within the draft Water Sharing Plan for the Upper and Lower Namoi Regulated Water Sources 2020 (draft Namoi regulated WSP) to protect the delivery of HEW and actively managed planned environmental water (PEW) (refer to section below on the Environmental Water Allowance) originating from the Peel River water source.

The NSW draft Active Management policy does not have within its scope mechanisms for protecting environmental water between and within the Peel and Namoi water sources. The provisions contained within the draft Namoi regulated WSP and draft Peel regulated WSP do not enable environmental watering to provide the enhanced hydrological connectivity intended under the Basin Plan. Connectivity is critical for enhancing ecological productivity, improving the health and movement of fish species (including threatened fish populations), and improving water quality. One option is to protect HEW is through discretionary embargoes under section 324 of the NSW Water Management Act 2000, however this is not optimal for providing certainty for all water users, rather HEW should be provided legal protection under a rule set established within the water sharing plans.

The sustainable diversion limit (SDL) for the Namoi water resource area is based on the protection of water recovered for the environment in upstream river systems from being

used by downstream water users (i.e. environmental water is intended to provide river health benefits through to Walgett at the end of the Namoi River and in the Barwon-Darling system). While SDL compliance is based on water use over a long-term period, water recovered for the environment does not contribute to the Annual Permitted Take. The absence of measures that explicitly exclude HEW from downstream extraction risks SDL non-compliance. The effectiveness of the SDL as a strategy for mitigating future environmental risks due to climate change[1] is also limited if the draft Namoi regulated WSP rules do not provide for the protection of water recovered for the environment.

The draft NSW Active Management policy provides the pathway for introducing transparent rules-based measures for protecting environmental water. For applicability within the Peel-Namoi River system the scope of this policy would need to be expanded to include regulated water sharing plan areas and enabled within the draft Namoi regulated WSP. Comments on expanding the scope of the draft NSW Active Management policy have also been provided separately in response to the policy consultation process (refer to Appendix A). To give effect to the draft NSW Active Management policy within the Namoi River, operational procedures must be established to provide transparency and certainty for all water users. The CEWH supports the establishment of operational procedures for improving water access announcements to provide for the effective and efficient use of HEW.

[1] Namoi WRP Risk assessment – pg. xliii

We request that:

- text is included within the notes at clause 8(2)(a)(ii) of the Namoi regulated WSP recognising the hydrological connectivity between the Namoi and Peel regulated water sources in meeting plan objectives and the environmental watering requirements of the Namoi LTWP;
- provisions are included within the Namoi regulated WSP as part of the system operation rules that would give effect to active management and the protection of held and actively managed planned environmental water originating from the Peel water source, in a similar manner proposed for unregulated water sources (e.g. draft Macquarie River Unregulated WSP);
- text is included within sections 4.3 and/or 4.4 of the Namoi WRP that recognises the importance of hydrological connectivity between the Peel and Namoi regulated water sources, and that accredited text is also included within these sections that identifies the statutory provisions within the draft Namoi regulated WSP that serves to protect environmental water consistent with Basin Plan requirements under s10.26 and s10.27; and
- The Namoi WRP and Namoi regulated WSP provides commitment to the development of operational procedures aimed to codify arrangements for the active management (protection) of environmental water, including procedures for the water access announcements.

2. Planned environmental water

Planned environmental water (PEW) represents the volume and flow characteristics that existed at the establishment of the Basin Plan settings for the SDLs and water recovery for the environment. The efficient and effective use of the Commonwealth water holdings are predicated on PEW being protected as per the intention of the Basin Plan (s10.28) and the Commonwealth Water Act. Any changes which reduce the protection or effectiveness of PEW could increase the risk to priority environmental assets and the capacity of the CEWH to support targeted outcomes in the Namoi and Peel catchments. To provide certainty to the management and protection of environmental water, further refinement of operational arrangements, improved transparency and clarification may be necessary. Suggestions to this effect are provided below.

Supplementary Access – Lower Namoi Water Source

The draft regulated Namoi WSP[2] and *Lower Namoi water source supplementary flow access rule-options paper'* (Options Paper) seek public comments on two alternative options for

[2] Draft Namoi Regulated WSP – Clause 48, Minister's note

managing supplementary access in the lower Namoi River that differ from the existing supplementary access rules. The option paper notes that if there is no acceptable alternative it is proposed to revert to the 90:10 supplementary sharing rule as per the 2012 Namoi regulated WSP, which we support.

To comply with the Basin Plan, any changes to water access rules must not result in a net reduction in PEW[3,4], with respect to legal protection, quantity and effectiveness, and must not compromise the environmental watering requirements of priority ecological assets and functions[5]. Meeting these two tests require a level of evidence that extends beyond an assessment of long-term average volumes and should consider changes to all flow components characterised within the draft Namoi Long Term Environmental Watering Plan (LTWP).

The Options paper requests community feedback on '*the effectiveness and timing of the flows and their environmental outcomes, as well as long term outcomes*'. The CEWH has been engaged in considerable scientific analysis and modelling undertaken by state Commonwealth agencies, in collaboration with irrigation groups, which has determined that the effectiveness of PEW would be reduced under an option of 50:50 supplementary access. Based on this analysis, the adoption of 'Option 2' that retains 50:50 sharing of supplementary access is likely to have adverse impacts on river health and PEW and as such we do not support this option.

'Option 1' has been developed based on the environmental watering requirements of the LTWP and therefore could be considered consistent with the environmental objectives of the draft Namoi regulated WSP and consistent with the Basin Plan[6]. Based on the LTWP, the proposed supplementary access flow thresholds should protect small freshes along sections of the lower Namoi River. Small freshes support in-stream productivity, increase habitat availability, providing movement, breeding and dispersal opportunities for native fish and other aquatic biota[7]. The frequency and duration of small freshes have been most impacted by river regulation in the lower Namoi River[8]. The rule set to implement 'Option 1' appears to result in negligible change to long term diversions.

[3] Basin Plan – s10.26

[4] Basin Plan Water Resource Plan Requirements – Position Statement 6A 'Change in PEW protection'

[5] Basin Plan – s10.17

[6] Basin Plan – s10.26

[7] Namoi Long Term Water Plan

[8] NSW Department of Primary Industries (2019). *Fish and Flows in the Northern Basin Stage II: Namoi Valley*. Prepared for the Murray-Darling Basin Authority. NSW Department of Primary Industries, Tamworth.

Based on the information provided in the Options Paper, 'Option 1' is considered by the CEWH as the preferred alternative rule set if the 90:10 rule is not going to be maintained.

> We request that rules for allowing access to supplementary water remains consistent with the Namoi regulated WSP 2012 (i.e. 90:10 supplementary water sharing) until such time as further information is made available and is subject to an independent review by the NRC.
>
> With respect to the alternative rule set options proposed for supplementary access, 'Option 1' is preferred by the CEWH on the basis that this rule set has been developed consistent with the environmental watering requirements of the Namoi LTWP.

Environmental Water Allowance – Peel Water Source

The draft Water Sharing Plan for the Peel Regulated Water Source (draft Peel regulated WSP) treats the Environmental Water Allowance (EWA) as an uncontrolled flow, that under current rules[9] allow for the EWA to be extracted, subject to minimum flow conditions. The rules to allow the EWA to be legally extracted during uncontrolled flows were established before the Basin Plan, however they clearly limit the effectiveness of the PEW as a strategy for mitigating environmental and water quality risks in the Peel River, and for meeting environmental water requirements under the Namoi LTWP. Extractive access to the EWA is inconsistent with provisions in other NSW water sources and undermines the intent of PEW to support basic river health and water quality.

The Namoi WRP Risk Assessment identifies high and medium risks for the Peel River associated with insufficient water to meet the environmental water requirements[10] and poor water quality exceeding health thresholds for water dependent ecosystems[11]. Mitigating these risks relies on existing water access rules and the strategic use of the EWA[12]. We think that the risk ratings reported do not support rules that allow extractive access to the EWA, which act to reduce the EWA's effectiveness in mitigating the identified high and medium risks.

Rules that provide protection of the EWA during periods of uncontrolled flows, or at least some characteristics or a greater proportion of the EWA, would improve the operation of the Namoi WRP to enable the planning and coordination of environmental watering to

[9] Draft Peel Regulated WSP – Clause 41

[10] Namoi WRP Risk Assessment – pp. ii, 40

[11] Namoi WRP Risk Assessment – pg. 70

[12] Namoi WRP Water Quality Management Plan section 4.3

occur for meeting flow targets specified in the Namoi LTWP[13]. The increased frequency and duration of baseflows and small freshes are important for providing connectivity between connected systems and supporting native fish requirements. Protecting these flow components should be the focus of any amendment to the minimum flow threshold for uncontrolled flow access

To avoid the operation of the Namoi WRP compromising the environmental watering requirements of priority assets and ecosystem functions[14], amendments to water access rules would be necessary to prevent extraction of the EWA or to raise the minimum flow thresholds for the commencement of pumping. This should improve the effectiveness of the EWA in mitigating the identified level of risks[15] and supporting Basin Plan outcomes.

We request that rules within clause 41 of the draft Peel regulated WSP are amended to:

- exclude the EWA from extraction during uncontrolled flows; or
- increase the minimum flow threshold for commencement of take from uncontrolled flows to recognise and protect the component of the EWA aligned with flow components characterised within the Namoi LTWP.

These amendments are requested to ensure the requirements of the Basin Plan under sections 10.17 and 10.43 are met.

3. Review by the Natural Resources Commission

The NSW Natural Resources Commission (NRC) has a key role in providing public assurance that arrangements for managing natural resources within NSW are ecologically sustainable and equitable for all water users. The recent review of the Barwon-Darling Water Sharing Plan, as a case in point, has provided constructive guidance and confidence in the future resolution of a contentious natural resource management issue.

The draft Namoi regulated WSP continues to be the subject of on-going contention on the protection of planned environmental water and supplementary water access. Other unresolved issues that may not fully support sustainable water resource management in the Namoi River valley include: the future implementation of the NSW floodplain harvesting policy; and, the potential adverse impact of river operation procedures for water efficiency on meeting end-of-system flow targets measured at Walgett.

[13] Basin Plan – s10.26

[14] Basin Plan – s10.43(1)

[15] Basin Plan – 10.17

Confidence that the revised draft Namoi regulated WSP provides for sustainable outcomes within valley, and with hydrologically connected water resource areas, will be important for building public confidence in the water planning process and outcomes.

A review by the NRC of the draft Namoi regulated WSP would assist in providing transparency and community confidence in the operation of the water sharing plan. This review would complement the current NRC review of the Peel regulated WSP to ensure that water sharing arrangements between these water sources are integrated and better reflect contemporary water management policy.

We request consideration is given to an early review of the draft Namoi regulated WSP by the NRC.

4. Operational strategies and transparency

Community advice on the management of environmental water

The Department has successfully convened Environmental Water Advisory Groups (EWAG) in many NSW valleys over several years. The Northern Basin Review 'toolkit' measures recognises the importance of establishing mechanisms for coordinating river flow management in the Northern Basin[16]. It is recommended that this coordinating mechanism is established in a way that enables regional input to environmental water management, allowing for the sharing of local knowledge and fostering stakeholder ownership of environmental watering within the Namoi and Peel rivers.

The CEWH supports the establishment of an EWAG that includes representation from irrigator groups, communities, First Nations People and local councils in the Namoi and Peel rivers, to improve the coordination of environmental watering between these catchments and to provide an avenue for the inclusion of local knowledge in environmental water planning.

We request that an EWAG is establish through the Namoi WRP/WSP with representation including stakeholders from both Namoi and Peel rivers to support coordination, local involvement and transparency in environmental watering planning and management.

Dam operation during floods and spills

The draft Peel regulated WSP introduces a new sub-clause that changes that intent of dam operations during floods and spills[17]. This sub-clause requires that the storage operator "leave the storage as full as possible" and "ensure that the general rate of increase of outflow does not exceed the rate of increase of inflow". The CEWH is concerned that the

[16] The Northern Basin Review, MDBA 2016

[17] Draft Peel Regulated WSP – Clause 57(b)

effect of this rule change may cause the operation of the Namoi WRP to compromise the environmental watering requirements of priority assets and functions by reducing the frequency and volume of high-flow freshes, bankfull and overbank flows events. These flow components are important for river connectivity with riparian and floodplain vegetation, the movement of nutrients, carbon and sediments, allowing organisms to disperse and supporting fish recruitment; key outcomes within the Namoi LTWP. Uncontrolled flows are recognised within the Namoi WRP as being important for facilitating fish passage and supressing algal blooms in the Barwon-Darling river system[18].

The WRP Risk Assessment identifies a medium risk for water available to provide large freshes, bankfull and overbank flows within the Peel River, based on prior operating rules[19]. An assessment of the future risk from a change in storage operation has not been included within in the WRP Risk Assessment or the documentation presented to the stakeholder advisory panel. Because of the potential inconsistency of this rule, the Namoi WRP Risk Assessment should provide detailed analysis of potential impacts on flow events and the proposed rule amendment revised in the context of the risks and the operation of the WRP.

Changes in storage operations that results in a reduction in uncontrolled flows downstream of Chaffey Dam should also be reviewed to ensure no reduction in PEW.

We request that amended text at Clause 57(b) in the draft Peel regulated WSP be removed to remain consistent with the current Peel regulated WSP such that no change in the operation of Chaffey Dam results.

Should amendments be retained requiring a change in storage operation from the current Peel regulated WSP, we request that:

- an assessment be conducted of the future risks to meeting environmental watering requirements of the LTWP and reported within the Namoi WRP;
- an assessment of net reduction of PEW is conducted and reported within the Namoi WRP; and
- regard is had to the inclusion of additional rules or amendment to rules for access to uncontrolled flows (as a risk strategy) such that the operation of the new storage operating rules does not compromise meeting environmental watering requirements or result in a reduction in PEW.

[18] Draft Namoi WRP – p. 19

[19] Namoi WRP Risk Assessment – pg. iii

5. Other matters

Aboriginal cultural access licence

The CEWH supports improving water access and outcomes for First Nations people and addressing the social and economic impacts of the Murray Darling Basin, in accordance with the Basin Plan Commitments Package[20].

> As agreed by Basin government in the Basin Plan Commitments Package, the CEWH encourages further consideration of the opportunities through the WSP to improve water access and outcomes for Indigenous communities in the Murray-Darling Basin.

PART B: STATE-WIDE ISSUES

6. Extreme events

Managing risks to the maintenance of water supply

The Namoi WRP Risk Assessment identifies high and medium risks related to water available for the environment and for other water users due to climate change, with acknowledgement that there has been a sustained and statistically unambiguous increase in temperatures across the Basin with surface water availability expected to decline[21]. The Department has determined the residual risk to be tolerable and relies on the method for determining allocation and the SDL to ensure sustainable water management and protection of PEW against unintended impacts.

The maintenance of water supply is set out within the draft water sharing plans, requiring operators to manage the water supply system "in a way that water would be able to be supplied during the repeat of the worst drought" [22]. The draft Namoi regulated WSP defines the *worst drought* by hydrological information up until 1 July 2004; the draft Peel regulated WSP defines the *worst drought* by hydrological information up until 1 July 2010. The WRP Risk Assessment notes that the impacts of climate change are uncertain, however surface water availability is more likely to decline than increase[23]. The management of water supply based on an inflow sequence that is not conservative to climate variability and extreme events creates a risk for the over-allocation of available resources.

[20] Basin Plan Commitments Package – Clause 3

[21] Namoi WRP Risk Assessment – Section 4.6, p. 58

[22] Draft Namoi Regulated WSP – Clause 56

[23] Namoi WRP Risk Assessment, pg. 58

The CEWH is concerned that the draft Namoi regulated WSP and draft Peel regulated WSP are not being based on 'worst drought' data, noting that the inflow sequence for the northern basin rivers in 2019 are believed to be about one third of lowest previous inflows. Therefore, there is a high risk that the data used to determine water resource supply does not provide for sustainable water allocation policy, or an effective strategy for managing future risks under extreme climate events. The quarantining of allocation from accounts, as outlined in the draft Namoi WRP Incident Response Guide (IRG), should not be used as a default to enable the effective operation of the WRP and the supply of critical human water needs as a result of not considering worst inflows in the management of water supply. The quarantining of allocation from accounts limits the ability of individual water licence holders to manage their respective risks with certainty by using account provisions such as carryover. The CEWH plans the carryover of HEW with consideration of water requirements for maintaining drought refuges during extreme events.

We request that:

- text is included within section 3 of the Namoi WRP and the WRP Risk Assessment that provides commitment to a review of the method used for the maintenance of water supply in the Namoi regulated WSP and Peel regulated WSP, of its effectiveness as a strategy for managing future risks to the environment and other water users;
- consideration is given to amending the text at Clause 67(2) in the Namoi regulated WSP and Clause 52 in the Peel regulated WSP to define the *worst drought* as the worst period of low inflows into the water source within the total record of flow information held by the Department; and
- the IRG and Extreme Events Policy are amended with regard to the recommendations above, enabling a precautionary approach to the management of water resources during extreme events.

Incident Response Guide

The draft IRG includes measures in response to extreme events for the purposes of meeting s10.51 of the Basin Plan. Though the "environment" has been identified as a high priority during extreme events, measures that outline the management responses have only been outlined for critical human water needs[24].

We believe that the critical environmental needs that would be supported by operational procedures during critical dry periods are not sufficiently defined to guide water resource priorities relevant to each critical stage and to enable an assessment of residual risk from operational decisions.

[24] Draft Namoi WRP – Table 5-3

The Namoi LTWP could support the implementation of the IRG by defining the critical environmental needs and by including explicit cross references between both documents. Further, including a reference to how PEW would be treated during periods of water shortage and WSP suspension would create certainty how critical environmental needs are met during critical dry periods. Stage 2 management actions outlined in the IRG include the use of measures such as block water deliveries. Operational measures under extreme conditions are necessary to maintain security of supply however these may have undesirable environmental consequences by reducing hydrological connectivity and water quality within refuge habitat. Procedures for the management of block releases and other operational measures would benefit from being documented within a procedure's manual, in association with strategies for mitigating potential environmental risks under extreme events.

The following inclusions are suggested to strengthen the Namoi IRG and implementation of the NSW Extreme Events Policy:

- outline the management response measures for the environment (extreme ecological water quality events);
- explicit reference to the LTWP during critical periods, particularly critical environmental watering requirements; and
- outline the process for documenting operational procedures and the assessment of risk associated with water resource management during extreme events.

To provide increased clarity in the management of extreme events, we would also suggest:

- that a communications and engagement plan is disseminated at the earliest opportunity indicating how water license holders will be consulted during critical periods; and
- detailed information is included in the IRG that outlines the process for reinstating resource allocations as conditions improve and criticality decreases.

7. Make good actions in response to SDL non-compliance

The draft Namoi regulated WSP[25] specifies that the take of environmental water through licences managed by the CEWH are not to be included in the assessment of Annual Permitted Take (SDL).

The draft Namoi regulated WSP[26] also specifies the actions to be taken following the non-compliance with either the 'long-term average annual extraction limit' or the 'long-term average Sustainable Diversion Limit'. The restorative actions specified in the draft Namoi regulated WSP[27] provides the Minister with the authority to restrict the available water determinations of particular entitlement classes following breach of extraction limits. The CEWO notes that the application of restorative actions for SDL compliance that restrict allocation against HEW may not be effective in bringing extractive take back into compliance with the SDL. Rather, it may constrain the ability of the CEWH to access water and mitigate the environmental impacts from any growth in water extraction. As a principle we believe restorative actions should target the source of SDL non-compliance. Treatments applied to address non-compliance should be demonstrated to be effective in returning take under the SDL back into compliance.

We request that the Department consider whether the restorative actions specified in Clause 34 of the draft Namoi regulated WSP and draft Peel regulated WSP should be revised to explicitly refer to entitlements within the SDL.

8. Conversion of licences

The Department has sought advice on future provisions to enable the conversion of high security licences in the regulated river system to unregulated access licences in connected upstream water sources. Without further detail on the proposal, such as the drivers, potential benefits and what limited scope may comprise, the CEWH is not in a position to support the proposal at this stage.

The transfer of access licenses into unregulated water sources of the Namoi or Peel water sources could have unintended environmental impacts; compromising the achievement of environmental watering requirements, impact water dependent ecosystems and reduce connectivity between unregulated and regulated systems. The draft Risk Assessment identifies medium or high risks of having zero flow periods and insufficient base flows within many unregulated systems, based on the existing distribution of unregulated water access

[25] Draft Namoi Regulated WSP – Clause 32, Note 1

[26] Draft Namoi Regulated WSP – Clause 34

[27] Draft Namoi Regulated WSP – Clause 34

licences. Shifting water extraction into upstream unregulated tributaries also has the potential to reduce uncontrolled flows in the Namoi or Peel rivers.

We encourage the Department to assess the environmental impacts of the proposed conversion of licenses and to continue stakeholder consultation in consideration of this provision. Specific analysis should be conducted on potential impacts on PEW, reliability of water licences, impacts on the capacity to meet environmental watering requirements and on hydrological connectivity between regulated and unregulated systems.

9. Monitoring, Reporting and Accounting

The Basin Plan requires monitoring and formal reporting on the use of environmental water, relating to both PEW and HEW[28]. This responsibility for reporting water accounting information extends to both state governments and environmental water holders.

The CEWH notes that the Transition Period Water Take report 2017-18 has identified 'inaccuracies in environmental data', issues with environmental water accounting and supports further work towards building a best practice in environmental water accounting[29].

The methods used for environmental water accounting reflect the type and scale of operations for the management of environmental water delivery. Environmental water extracted from the river and pumped into a wetland is metered in the same manner as irrigation water take. Environmental water delivered through irrigation channels is accounted to the same standard as required by irrigation water delivery. The accounting of environmental flows through the river system are reliant on the same services and standards as applied to bulk water management. Environmental water accounting, irrespective of the method used, is reliant on the services provided by external parties and the oversight provided by the Department as the state regulatory authority.

As with all forms of water take, we encourage on-going improvement in the accuracy, reliability and credibility of environmental water accounting information. We look forward to continuing to collaborate with the Department on these matters.

We request that the Namoi WRP refers to a process for continuous improvement in environmental water accounting through the development of operational procedures to give

It is requested that text within the Namoi WRP (with respect to Basin Plan s10.46 is included that outlines a commitment by the Department to the on-going improvement in the methods and practices underpinning environmental water accounting, to provide public accountability in the management of all water resources.

[28] Basin Plan – s10.46, Schedule 12, s13.14

[29] MDBA Transition Period Water Take Report 2017-18, p. 163-164

effect to State and Commonwealth reporting obligation under the Basin Plan (s10.46, 13.14, Schedule 12).

10. Water Quality Management Plan

The Water Quality Management Plan (WQMP) aims to provide a framework to protect, enhance and restore surface water quality, supporting the Namoi WRP and Namoi LTWP.

The CEWH notes that due to insufficient information[30] risk assessments have not been undertaken for several types of water quality degradation outlined in the Basin Plan[31] including hypoxic low flow and blackwater events, bottom release/or overturn from stratified water storages, water temperature outside of natural ranges, elevated pathogen counts, and elevated levels of pesticides and other contaminants.

As the frequency and duration of cease to flow periods in the lower Namoi River appear to have increased in many locations over the past 1972[32], water quality degradation in waterholes from cease to flow periods should also be incorporated into the risk assessment. These risks have the potential to negatively impact environmental outcomes and should be assessed to provide assurance that the mitigation strategies in the WQMP will meet the requirements of the Basin Plan (Chapter 10, Part 7). We encourage the NSW Department to consider including within the Namoi WRP a requirement for periodic reassessment of water quality risk as a key mitigation strategy.

Operating strategies

Risk assessments undertaken as part of the Keepit Dam Safety upgrade have indicated that Keepit Dam has a high cold-water pollution potential and has been identified as a location for cold water mitigation work (e.g. multi-level offtake). This risk has not been reflected in the draft WQMP. The draft WQMP identifies the presence of multi-level offtakes at Chaffey and Split Rock as strategies to address cold water pollution as well as managing algal blooms in these sources. Further improvements to multi-level offtakes operational protocols may be required to more effectively reduce cold water pollution while minimising risk of transferring algae downstream. The Department could also consider the appropriateness of other strategies or technologies (e.g. mixing technology, thermal curtain etc.) to provide other strategies in the WQMP.

The use of a seasonal stimulus flow is referred as a strategy against several water quality risks. The stimulus flow was replaced by the Environmental Water Allowance (EWA) when the dam was enlarged and is no longer referred to in the draft Peel regulated WSP. We recommend removing references to the stimulus flow to avoid confusion.

Operational strategies aimed at treating water quality risks and maintaining basic river health should be considered a basic function of the WSPs and be protected by normal operating

[30] Draft Namoi Water Quality Management Plan – Table 3-1, Table 4-3

[31] Basin Plan 2012 – Chapter 9, s9.02

[32] Fish and Flows in the Namoi (DPI 2019)

rules. The effective operation of the WSP/WRP should not rely on strategies that presume the use of Commonwealth HEW[33]. Decisions on the use of Commonwealth HEW will be made consistent with the statutory function of the independent CEWH under the Commonwealth Water Act. As water quality risks are often exacerbated during extreme events, a cross reference with the IRG could strengthen both documents.

The following changes would strengthen the WQMP for supporting the water quality and river health objectives:

- include a mechanism for the periodic review of emerging and existing risks to provide for the effective treatment of risks, and the basis for considering the need for new operating rules; and
- include explicit links between the WQMP and other WRP documents, i.e. the IRG and LTWP.

PART C: CLARIFICATIONS AND CORRECTIONS

The following section outlines suggested edits/points of clarification to the draft Namoi regulated WSP:

Correction – Part2, Environmental Objectives (3)(b) – Note 2 incorrectly indicates that Clause 45 of this plan protects a portion of tributary flows in the Lower Namoi. This clause in the draft Namoi regulated WSP refers to the taking of uncontrolled flows in the Upper Namoi Regulated Water Source not the Lower Namoi Water Source.

Correction – Part2, Environmental Objectives (3)(c) – Note 1 indicates that Clause 45 of this plan protects a portion of low, medium and high natural flows. Clarifying text should be provided noting this applies to flows in the Upper Namoi.

The following section outlines suggested edits/points of clarification to the draft Peel regulated WSP:

Deletion – Part 5, Division 3 Requirements for water under access licences – Note 2 incorrectly states that one of 2 access licences totalling 1,257 unit shares are held by the Commonwealth Government. It is considered inappropriate to single out a single holder of general security entitlements in the water sharing plan on the basis for which that entitlement is being used. This note should be removed. Information on the Commonwealth's water holdings can be found in the Namoi WRP.

Clarification – Part 2, Environmental Objectives (2)(b) – Note 1 identifies the "NSW Environmental Water Holder" as the decision maker for the Peel EWA. Elsewhere in the draft WSP, only the NSW Environmental Water Manager is referred to in relation to the use of the EWA. A definition is required of who the NSW Environmental Water Holder is, and clarification should be provided about the role of the water holder versus the water manager for the EWA.

[33] Draft Namoi Water Quality Management Plan – Table 4-3

APPENDIX A

SUBMISSION: ACTIVE MANAGEMENT IN UNREGULATED RIVERS POLICY PAPER

Context

The Commonwealth Environmental Water Holder (CEWH) strongly supports active management and commends NSW for the release of the draft Active *Management in Unregulated Rivers policy* (draft policy) under its Water Reform Action Plan.

Following the release of the reports of the Independent investigation into NSW water management and compliance, conducted by Ken Matthews AO, in late 2017 the NSW Government has committed to a process of water reform, leading to the development of the NSW Water Reform Action Plan. Together with measures to significantly enhance compliance with water regulation, a cross jurisdictional working group was established to consider measures to ensure the effective management, coordination and protection of environmental water flows.

The Commonwealth Environmental Water Office (CEWO) has engaged as part of the Interagency Working Group for Better Managing Environmental Water over the past two years, and supports the broader measures which have been put forward in this paper, and those which have been developed and put forward through a number of draft water resource plans, including particularly that for the Barwon-Darling. The measures put forward are the result of robust interrogation across a broad range of policy, regulatory, environmental, fisheries and science agencies, sound science and modelling, the articulation of ecological needs, and are feasible in the context of the NSW water management framework.

The development of an Active Management framework is the central platform through which the NSW Government will, into the future, provide assurance of the protection of environmental flows along the length of river systems and beyond the boundaries of water resource management areas. Apart from the use of measures such as temporary water orders (embargos) under the NSW Water Management Act (s324), it will be the only way that held environmental water (HEW) from Commonwealth accounts is protected so that it provides benefits for the health of river systems and wetlands in unregulated catchments, and is not available for legal extraction on crossing water resource management area boundaries.

Active management will be a significant improvement from the use of applying temporary orders to protect flows for environmental purposes. Active management involves having skilled river operators applying standard transparent procedures and making adjustments to the sharing of water on a daily basis. This policy and the subsequent procedures represents an enduring framework versus the need for embargoes on individual flow events where the first part of an event can be unprotected while the administrative process for placing the embargo occurs. This, with improved compliance and metering, will give greater assurance to the community and entitlement holders.

The Active Management framework is also critical in complementing the commitments of the NSW Government through the Intergovernmental Agreement on Implementing Water Reform in the Murray Darling Basin, including measures to support the implementation of the Compliance Compact and the Northern Basin ‘toolkit measures’, which include the protection of environmental water; event-based environmental water delivery; and improved management and coordination.

Implementation of active management will provide certainty and assurance to all water users, and confidence to irrigators who have made it clear they don't want to be taking water for the environment. The process of implementation, like many water management issues, will be complex but it is necessary.

Importantly, the draft policy progresses some of the broader platform for the protection of environmental water within NSW; but specific to the catchments of northern Basin. The pre-requisite policy measures provide another component of this platform to protect environmental water in the southern Basin. It is the CEWH's view that the NSW Government should commit to the extension of active management to incorporate both regulated and unregulated water resources across the NSW section of the northern Basin to provide confidence and certainty to all water users. This would provide a more complete policy platform which takes account of, and protects, additional HEW in the river that flows:

- along regulated and unregulated water sources;
- from regulated water sources to unregulated water sources (such as from the Gwydir or Lower Namoi into the Barwon-Darling);
- from regulated water sources to regulated water sources (e.g. Peel to Namoi, Murrumbidgee to Murray);
- from unregulated water sources to unregulated water sources (e.g. Queensland unregulated tributaries to the Barwon-Darling); and
- from unregulated water sources to regulated water sources (potentially the Barwon-Darling to the Lower Darling in the future, having regard to the Murray-Darling Basin Agreement).

Active management offers improved confidence for all water users and the community more broadly through documented procedures and increased communications that increases the oversight and transparency of contemporary river operations. This will support the NSW Natural Resource Access Regulator (NRAR) in implementing their compliance regime.

The principles for implementing active management are discussed below. The principle of adaptive management and on-going refinement of the operational procedures and policy are consistent with the NSW Department's approach on pre-requisite policy measures in the southern Basin, and are supported. Similarly to the on-going implementation of pre-requisite policy measures, providing public confidence in the implementation of the Active Management policy would be supported by a detailed work plan with commitment to timeframes, consultation process and resourcing.

Additionally, the CEWH supports the objectives and principles within the draft policy paper, including that material impacts are mitigated or offset, and unintended gains are avoided. This means that additional flows in the river are protected to a reasonable degree for in-stream benefit.

Details relating to the draft policy's implementation within specific water resource areas are provided in the CEWH's submission on the following Water Resource Plans and Water Sharing Plans:

- Namoi Water Resource Plan and associated Water Sharing Plans
- Macquarie Bogan Unregulated Water Sharing Plan
- Gwydir Unregulated Water Sharing Plan
- Barwon-Darling Water Resource Plan and Unregulated Water Sharing Plan

Responses to consultation questions

Consultation question	Response
1. What are your views on what water will be defined as *active environmental water* and managed through an unregulated water source?	The draft policy sets up active management for flows of 'active environmental water' from regulated water sources to unregulated water sources. The draft policy also protects unregulated water within the unregulated Barwon-Darling water source. For the purpose of defining a full scope of work for the northern Basin now, we request that the definition of 'active environmental water' is broadened to include HEW licences in regulated river water sources when account water is released from an upstream regulated storage to flow through to downstream regulated water source. Active management, or some form of protection like that associated with 'return flows' in some regulated southern valleys, should apply to all additional environmental flows between regulated water sources. For example, environmental water from Commonwealth water accounts released into the Peel River should be actively managed (or otherwise protected) along the Lower Namoi for as far as it flows. While this may be a small volume in relative terms, it is a matter of principle that the additional water would not have been in the river without the environmental flow and so should not be available for take. If protections are not put in place, water released for the environment may be pumped resulting in an unintended gain by consumptive users, and would not deliver the intended downstream environmental benefit. Introduction of arrangements for fuller protection of environmental water may be in several tranches. The draft policy focusses on environmental water flowing from regulated water sources to unregulated water sources. Active management could include water managed for other uses. The CEWH would support, for example, protection of flows under active management from a regulated water source to an unregulated water source for consumptive purposes. Such a transfer of water allocations by an irrigator from a regulated water source downstream to an unregulated water source should also be permitted, subject to the rules of active management applying. Any such transfer of consumptive water is likely to have an incidental environmental benefit by improving connectivity. Whilst irrigators may not choose to use active management, it is fair that they have the option to do so. <u>Possible application in the Lower Darling</u>: if there is additional water in the river flowing into Menindee Lakes which is active environmental water, in due course, environmental managers should have the option of calling that water down the Darling rather

	than into the Menindee Lakes, so as to provide connectivity. The water would ideally also be protected along the Lower Darling. This would be a flow of additional water as a result of water recovery from an unregulated water source into a regulated water source. The CEWH acknowledges that this would need to be made possible in the context of the Murray-Darling Basin Agreement, and may take some time. Whether the protection is provided by active management or some other arrangement (possibly in the Murray Lower Darling water sharing plan or the Menindee Lakes Sustainable Diversion Limits proposal) would need to be determined by NSW.
2. Do you support inclusion and protection by active management of planned environmental water releases from upstream water sources that are additional to the inflows that were considered when the Barwon-Darling plan commenced?	Yes. The CEWH supports the inclusion of planned environmental water (PEW) within the scope of the active management policy on the basis that: • PEW underpins the effective and efficient use of HEW; • managed PEW is providing additional flow in rivers for environmental purposes that would not have otherwise been available for extraction; • managed PEW was part of two past flow events (the Northern Connectivity Event in 2018 and the Northern Fish Flow in 2019) from regulated water sources into the Barwon-Darling unregulated water source. This PEW was protected using the same means as HEW (a section 324 order); and • the strategic use of PEW provisions has been identified in water resource plans as providing treatments for high and medium risks to water quality and for meeting environmental water requirements of connected water resource area – an erosion of PEW limits the effectiveness of these risk treatments. As an example, the Gwydir regulated water sharing plan now provides the NSW environmental manager with the discretion to divert some of a supplementary event into streams that flow to the Barwon-Darling. This is additional water to the Barwon-Darling and this water should be protected by active management in the Barwon-Darling. It therefore is important that the Active Management Procedures Manual (Procedures Manual) reflects that additional inflows to downstream unregulated water sources are protected through the Active Management framework. A second example of water that should be protected under active management is the recently announced voluntary contribution of water by Cubbie station[34]. This will increase water flowing from Queensland to NSW along the Culgoa River in some flow events, and may even contribute to flows to the Barwon-Darling that may

[34] https://www.macquarie.com/us/about/newsroom/2019/macquarie-agriculture-and-shandong-ruyi-enter-joint-agreement-for-ownership-of-queenslands-cubbie-station

	reach Bourke in some flow events. The Procedures Manual should allow these flows to be protected through the Active Management framework. Implementation would follow Queensland and NSW developing a cross border water accounting arrangement as under the *Intergovernmental Agreement on Implementing Water Reform in the Murray-Darling Basin*[35]*.*
3. Do you support the criteria for where active management is to be applied?	The establishment of active management for some of the northern Basin is important progress. The spatial extent of active management (or the protection of environmental flows as part of a broader platform) in the draft policy should however also be applied to other northern water sources in the near future, including the Intersecting Streams, Border Rivers and Lower Namoi. This may not be possible in the first tranche, but a commitment towards ongoing extension of the framework, consistent with good adaptive management principles to build a consistency of management arrangements across all Northern Basin river systems would provide certainty and assurance to all water users. The draft policy paper notes that '*There are many unregulated water sources across NSW where active environmental water may be delivered or used in-stream within the water source'*. It is important that procedures are developed for each specific water source to enable active management to occur. To meet community expectations, in the final policy, NSW should publish a program outlining timeframes for developing the Procedures Manual across all northern Basin water sources that includes consultation. The draft policy highlights the need for flows arising from HEW licences in Queensland to be estimated and protected through active management. NSW has agreed to a timeframe for developing the accounting process supported by protocols and procedures for determining and actively managing these flows. This is an important measure which supports the commitment of NSW to enable effective cross-border management of water, including environmental flows, and supports measures being implemented in Queensland to support environmental flow management.
4. What are your views on how accounts will be managed for in-stream use of unregulated held	The CEWH strongly supports the principles outlined within the draft policy, and the implementation of a fair active management system that includes: use of best available data; application of processes that are regularly reviewed and improved as needed; and the transparent management of water.

[35] https://www.coag.gov.au/sites/default/files/agreements/iga-on-implementing-water-reform-mbd-9-august-2019.pdf

environmental water licences?	The CEWH agrees that tracking of 'parcels of water' is not required and is not practical. It is important that water accounting information used is quality assured and checked, to the extent possible, against the reality of actual conditions experienced during the environmental flow events. This will improve accounting, provide an increased sophistication in the calculation of river transmission losses and support greater confidence. The following 'fallback' arrangement from the draft policy is, however, <u>not supported</u>: *"If active environmental water is not the only source of water in-stream and the volume of active environmental water cannot be determined the current access conditions will apply. This may be necessary in active management rivers where current infrastructure is insufficient to determine the volume of active environmental water present or in the event of upstream gauging station failures."* This measure appears to undermine a fundamental basis of the Active Management policy which is to protect environmental flows between regulated and unregulated catchments as one part of the flow regime through modified pumping thresholds/active announcement systems. "Current access conditions" seems to imply that held water released from storage could still be legally extracted on crossing water resource management area boundaries. If so this is contrary to the CEWH's understanding of the NSW Government's commitment to this policy and broader commitment to water reform. A commitment to ensuring sufficient gauging and metering infrastructure, particularly in unregulated catchments, and to the maintenance and regular calibration of it, is critical to the implementation of this policy. When there is a low certainty in the accounting information for environmental water, the development of quality assurance procedures should be fast-tracked. These would include review and adjustment processes, and appropriately revised provisions regarding quality assurance arrangements in the final policy and the Procedures Manual.
5. Do you support assigning river transmission losses proportionally to active environmental water?	Yes. The CEWH is supportive of assigning river transmission losses proportionally. With the existing uncertainty in the measurement and accounting of river flows within unregulated systems, this approach is pragmatic and reasonable, and consistent with the principle that material impacts are mitigated or offset, and unintended gains are avoided. During community consultation, a point of view expressed was that HEW flowing in the Barwon-Darling should be debited to meet all river losses. This is inconsistent with the principles of active

	management and is not supported by the CEWH. All water users should proportionately share losses which can occur from evaporation as well as seepage, and absorption into riparian habitat. Without an environmental flow component, the river would still have incurred losses, and the proposal that all losses are only environmental would lead to an unintended gain for other water users. The settings for the Basin Plan assume that environmental water will *supplement* unregulated flow and any substitution with standard operational losses will only diminish the effectiveness of the actively managed environmental water. Demonstrating that the proposed approach for assigning losses to active environmental water is equitable for all water users will be important to provide a high level of public assurance. The CEWH supports the establishment of procedures for reviewing loss forecasts and adjustment to attributed losses during a flow event.
6. What are your views on concept of adjusting commence to pump/cease to pump thresholds to protect active environmental water from extraction?	The CEWH supports this concept. Water users are used to working with arrangements that include commence-to-pump/cease-to-pump thresholds. There are commence-to-pump/cease-to-pump thresholds that apply to the Commonwealth's licences in the Barwon-Darling that will also be adjusted, and the CEWO will need to take account of this when planning 'take' against these licences to achieve in-stream environmental outcomes.
7. What are your views on proposed amendments to water sharing plan access rules to protect active environmental water in each of the water sources where active management is proposed?	It is critical that protections through active management are operationalised through water sharing plans, but without further detail on the final policy and in the Procedures Manual, it isn't possible to provide a fully informed view on this matter. There is some detail in the draft unregulated water resource plans for the unregulated Macquarie and Gwydir water sources – but specific comment will need further supporting information on the final policy measures. An important principle of active management when developing these amendments to water sharing plans will be that third party impacts are mitigated and that there are no unintended gains by licence holders through the pumping of environmental water.
8. Do you support distributing the available volume between licence holders in the Barwon- Darling based on Individual Daily Extraction Limits?	The CEWH supports the distribution of the volume available among unregulated river access licences based on Individual Daily Extraction Limits (IDELs) **if** the IDELs are based on a proportion of the total licence volume (shares) in a management zone. That is, if an entitlement holder has 10% of a B class licence in a management zone, then that entitlement holder should have access to 10% of the water available over the B class commence to pump threshold on a particular day. If some entitlement holders choose not to 'take' on a particular day, then the river operator could make available more water to each entitlement holder that

	chooses to 'take' subject to the daily limits. This is a similar approach to that used for supplementary licences in regulated systems. IDELs should be governed by a sustainable Total Daily Extraction Limit (TDEL) that should not be exceeded. **If** IDELs are based on the authorised pumping capacities, the CEWH would support IDELs for distributing the available volume on the basis that they reflect the capacity of works in place prior to the making of the Barwon-Darling water sharing Plan in 2012. Doing this will ensure the equitable sharing of flows between entitlement holders in each licence class. It is also likely that IDELs based on authorised pumping capacities will assist in maintaining the duration of ecologically significant flows. • A report commissioned by the CEWO suggests that a distribution of access based on pump capacity would be significantly lower for A class licences if it were based on actual installed pumping prior to the making to the Barwon-Darling water sharing plan rather than based on authorised pumping capacity[36]. The corresponding reduction IDELs for some A class users would enhance the duration of low flows. • The Natural Resources Commission (NRC) recommended the implementation of IDELs based on the extraction rates authorised and in place before removal of restriction on pump sizes for certain licence classes (i.e. not authorised pumping capacity). During recent community consultation, some entitlement holders expressed interest in distributing water on a day by rostering amongst themselves so that pumps were not turned on for a few hours. In the future, temporary trade may provide the basis of this re-distribution. Active management would provide a basis for entitlement holders to re-distribute water in a way that could satisfy compliance regime implemented by the NRAR. Sharing of access to events based on shares (licences) within a management zone is consistent with NSW practice for supplementary events in regulated systems, is likely to accord with the community expectation, and is equitable.

[36] Paul Simpson, Barwon-Darling: low flow environmental watering impediments and opportunities, report prepared for the CEWO, October 2017, https://www.environment.gov.au/system/files/resources/df3666cb-16ed-483c-b73c-a49e63f6df6e/files/barwon-darling-low-flow-environmental-watering-impediments-opportunities.pdf

9. Do you support distributing the available volume between licence holders in the Barwon- Darling to individuals who have expressed an interest based on Individual Daily Extraction Limits?	To ensure equity and transparency, the CEWH supports distributing the available volume between licence holders in the Barwon- Darling to individuals who have expressed an interest based on IDELs (if the IDELs are based on a share of TDELs or the recommendation of the NRC – please refer to the response for question 8). The expression of interest process could be 'opt in' or 'opt out'. The river operator running the distribution system that would have an active presence during flow and with improved reporting would give confidence to entitlement holders and the community that the water sharing arrangements are being adhered to. NSW could develop the system based on an expression of interest process in other catchments for supplementary access, for example. A form of informal rostering system has been implemented in the past in the Barwon-Darling amongst some entitlement holders. This means that licence holders have supported a sharing arrangement suggesting there has been benefit to them from it, and so a more formalised, professional and transparent system should also be supported.
10. Do you support access being announced? What issues need to be considered in making announcements?	Yes. Announcements provide transparency and confidence, and are a fundamental element of the Active Management framework. Announcements would provide clarity and certainty for all water users about the timing and conditions of authorised take against licence, as well as providing a clear basis for review by the NRAR. Issues that need to be considered are: • Communications, particularly as mobile phone coverage in remote areas is patchy. The onus should be on the entitlement holder to provide a communication channel for interacting with the river operator. • Decisions may be required on weekends. Given the value of the resource and the opportunistic nature of access, river operators and licence holders should put in place arrangements for management of unregulated events at all times when needed. • The draft policy identifies the potential for risk to active environmental water as a result of take under licence categories other than unregulated river access licenses need to be evaluated. The CEWH has included in several submissions that the development of 'guidelines for reasonable use' under the NSW Water Reform Action Plan is a fundamental step in such an evaluation. These guidelines are necessary for the NRAR to do its essential job of monitoring take and ensuring compliance. These guidelines are also essential in managing the expectations of those who have access to water under basic landholder rights.

	• The CEWH requests that NSW develop the guidelines as a priority. To support the announcement process in the Barwon-Darling, there is likely to be a need for a river operations advisory committee, as there is for flow events in the lower Balonne. The membership may change as the flow moves through management zones. The group could meet by teleconference from when it becomes highly likely that a flow event is to be shared in the Barwon-Darling. (References in the draft policy to notifying 'the Minister' are assumed to be the Ministers delegate, who is the river operator. This could be clarified in the final policy).
11. What are your views on how loss estimates will be forecast and how operational uncertainty is proposed to be managed?	The CEWH supports development of a practical procedure for the treatment of losses. The CEWH agrees that the process for estimating *initial* losses based on comparable historical events is a reasonable and fair approach. The initial losses proposed to be applied and the basis for selection should be reported to all entitlement holders prior to the event, as a matter of good process, possibly through a river operations advisory committee including the CEWO and other licence holders. The basis for the initial loss and on-going adjustments to these estimates should be discussed during the flow event and reported post-event. The method for determining initial losses should be subject to annual evaluation and review. The procedure for applying *on-going losses* to environmental water during the watering event should involve a transparent process of adjusting loss forecasts based on actual conditions, and then adjusting access based on any significant cumulative mismatch between forecast losses and unaccounted differences during a flow event. Adjustments to on-going losses should take into account the initial losses applied. The process of on-going forecasting and adjustments should be reported during the event and subject to review post-watering event. If an irrigator uses less water than the allocated amount on a day, environmental managers should not be deemed to have taken more water. To test the procedure, the river operator could run a simulated flow event where announcements are made, and licence holders respond, applying the method for forecasting and adjusting losses to be applied to environmental watering events. This simulated flow event could be as real as possible – without 'foresight' of flows in coming days. CEWO officers would welcome the opportunity to participate. The draft policy says *'Adaptively adjusting ongoing loss forecasts based on observed losses (i.e. unaccounted differences between*

	flow at upstream and downstream gauges) provides an opportunity to address (at least partially) any mismatch between forecast and actual flows ensuring mismatches arising from uncertainty in ongoing loss forecasts don't compound as the event proceeds. This option therefore has potential to minimise risks to the active environmental water and licence holders'. Increasing sophistication in forecasting of losses, supported by adaptive review of actual losses, is critical to providing transparency to all water users and assurance that the processes are equitable and will sustain robust interrogation.
12. What other options should be considered?	No other options are suggested.
13. What information do you consider is important to document and consider in order to continuously improve active management?	To provide the community and licence holders with assurance and confidence, regular and comprehensive reporting is essential. The annual report proposed in the draft policy would be a useful contribution. Short reports following discrete flow events, as are used in some regions (e.g. Queensland lower Balonne), are particularly useful and would provide a timely set of information to support informed engagement with watering events and build confidence in active management. Specific event reporting should also occur in the Barwon-Darling in periods when the flow events are discrete, and in the periods between when an event is being actively managed. There is an opportunity to review past flow events and to continuously improve practices and procedures in cease-to-flow periods when flows are not being actively managed. It will be of particular importance for building water user confidence that the allowance for initial losses (based on historic events) and on-going adjustments based on actual losses is transparently reported and reviewed. It would also be important to report on system performance – such as whether any gauges were thought to be inaccurate and steps in place to recalibrate etc. The chronology of announcements and responses would also be useful information to report. The regular review of procedure manuals is appropriate and consistent with the principles in the draft policy regarding continuous improvement based on evidence. Independent review is important, and is used in other particularly important river systems. For the River Murray System there is an annual independent review of river operations. The annual review of the active management system should involve at least one experienced

	independent river operator, who should provide a public report for transparency and a demonstration of continuous improvement.
14. What risks need further consideration?	1. The 'fallback' issue [reversion to current access conditions] discussed under the response to Question 4 represents a risk, if it is adopted, that the policy fails to adequately protect environmental flows, and could lead to water for the environment being used to meet system shortfalls, providing an unintended gain to other water users. The CEWH supports equitable and fair arrangements for the sharing of the water resource and for bearing a reasonable apportionment of losses, and urges NSW to undertake the work required to ensure that policy, technical and modelling work, and infrastructure to support accurate measurement and reporting is put in place to ensure the success of the Active Management framework without such a fallback being required. 2. Reasonable use for basic landholder rights need to be clarified and articulated as soon as possible. This would avert the risk of excessive take under these provisions, and provide clarity to landholders and the regulator. 3. Daily management of flow. Responses by river operators if there is over-use (which may be inadvertent) by a licence holder on a particular day need further consideration. Corrections could be made on subsequent days, with the NRAR becoming involved if the over-use persists.
15. What additional issues should be considered in actively managing flows?	Communications and advice to water users. Improved and updated information on flow management and access arrangements would be enhanced by website access, which could also provide updated information derived in real time from river operators. Accounting procedures associated with flows in the Warrego River through Toorale National Park to the Darling, and how these flows are reflected in the Active Management framework. Governance arrangements and process for involvement of environmental water holders/managers as well as other licence holders in implementing the method for determining initial losses and on-going adjustments, and on-going refinement of the overall operational procedures.

Email address	[redacted]
Name of respondent	[redacted]
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Individual
Proposed changes to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012	
Do you have any comments on the proposed change to allow limited water trading between the unregulated water sources within the Namoi and Peel WSP area where third party and environmental impacts can be quantified and deemed acceptable?	Trading of water even limited trading of water should not be permitted between unregulated water sources within the Peel and Namoi WSP area should not be permitted under any circumstances . Acceptable third party and environmntal impacts being quantified and deemed acceptable is not good enough. There is no room for error in unregulated water sources. Unregulated water sources are too important to the waterways downstream and the people, stock, crops businesses and wildlife which depend on this downstream water.
Do you have any comments on the changes proposed to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012?	The conversion of regulated river entitlements from downstream regulated river water sources to access licenses in connected, upstream , unregulated river water sources should not be permitted. Water dependent development should not be permitted in these unregulated water because 1. It would interfere with the flow of the unregulated water sources. This would result in a decreased volume of water reaching the remainder of the river system and a resultant decrease in the amount if water in storage in dams .The flow disruption could have detrimental environmental affects. 2. Any issue with pollution could not only adversely effect the immediate area but have detrimental consequences downstream . This , depending on the polluting agent, could have dire consequences for the humans, crops, stock , environment and businesses who depend on water from the dam. Whole towns could be at peril. Mitigation of pollution in these unregulated waters would have to be

	immediate to prevent the spread of the pollutant . Mitigation would be problematic at best and dire if unsuccessful. 3 The precautionary principle should be applied to this draft change.
Response per WRP chapter	
Do you have any comments on how the Department of Industry lands and Water can improve the consultation process undertaken?	Better advertising. I only heard about the meeting via a friend's daughter
Response to chapter 4: Environmental water, cultural flows and sustainable management	
Do you have any comments on the protection of environmental water?	Environmental water must be protected. We can't live unless we have a healthy environment.
Do you have any comments on cultural connections to surface water and the protection of Indigenous values and uses?	First Nations Peoples should be consulted on all matters involving surface and ground water because we are still learning about their values and cultural connections. Their knowledge would be invaluable .
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about the opportunity to make a submission?	The daughter of a friend told me and I told another friend about the meeting at Tamworth. We found the information compelling and overwhelming .
Additional Information	
Please tick the relevant boxes	I consent to my “submission” being published on the department’s website and wish to maintain my privacy by having my name withheld from the submitter's list. Please note that any emailed attachments you may have provided and any personal information that has been included in the attachment will be published.

[redacted]

15 November 2019

XXX
XXX
Transmitted by Email: namoi.sw.wrp@dpi.nsw.gov.au

Re: Peel Regulated Water Source, Water Sharing Plan

Dear Sir/Madam

I wish to make the following submission regarding the above Water Sharing Plan.

Whilst appreciating the need for fair dealing, I ask that any publication of this correspondence have my contact details redacted please.

I write this submission from a viewpoint of seeking a consensus position regarding water sharing amongst the many competing facets. I spent my early life in Riverland South Australia and maintained family connections there until recently. I have lived and worked somewhere in the MDB basing for the great majority of my life, I am mid 60's now. Whilst I have never farmed/irrigated, being a Civil Engineer I have always attempted to maintain knowledge of the processes applicable.

Sharing by the very definition conjures equitable distribution to the overall net benefit of the community as a collective whole. It is about consideration of the benefits of use, for example the benefits accruing from inland fishing and water based recreation versus watering a one off crop.

There must be robust and considered discussion about how water is allocated and used, sadly in my view it has become a very much piecemeal discussion aided and abetted by Political influence.

My very strong view is that Water Security is not viewed in a sufficiently holistic manner. Competing interests focused on their particular need often hijack the debate. In that sense my attempt here is to define the parameters of the debate.

Regarding downstream users accessing any water from the Peel Regulated, Un-regulated, Alluvium or Fractured Rock Sources, I am in disagreement with the exception of Temporary Trades where the water is not required within the Peel Valley, is immediately available and such trades are settled immediately. Under no circumstances would I condone any permanent transfer. Certain changes appear configured to promote such transfers by amalgamating certain water sources.

In essence the revision of the Water Sharing Plan (WSP) for Peel Surface (WSPPS) is little changed on that currently in force.

The recommendations I wish to make regarding changes going forward into the new are as follows:

1) **<u>Suspension of this Review Process</u>**

   Currently we are in the midst of an unprecedented drought surpassing that of the Millennium one. Whilst fair to say some lessons were learned, some also quickly dismissed this as an aberration and chose to carry on business as usual. This drought has and will demonstrate issues that, if analysed and learned from will help society as a whole better prepare and manage in the future.

   For the Peel it is essentially a survival process now, Surface irrigators have no allocation, Groundwater is restricted, High Security is on rationing moving toward critical human needs with approximately 18 months duration in storage.

As such implementing a new WSP will not change the current situation until we receive significant rainfall and the storage situation allows resumption of "Normal" operations.

As the WSPPS is little changed on the former as currently drafted there will be little change once "Normal" operations resume. As such I make the following comments:

- **Suspend this Review Process**
- **NSWW has not released the Peel Water Balance report for the 2018-2019 Water Year at the time of compilation of this submission. As such, some extremely vital information is missing from consideration. The writer has personally requested this information from the NSW Minister responsible, it has yet to be provided.**
- **The process presented was very much, here is what we have written, what we think, now in a short space of time, tell us what you think. Writing such a submission also takes a lot of people's time if it is to be prepared properly.**
- **Use time to better engage all stakeholders**
- **The Drought will present issues never before experienced, certainly in current memories**
- **See what can be learned whilst this drought plays out.**
    - **Connectivity of Peel River and Aquifer(s)**
    - **What happens when river stops?, most likely not experienced in the lifetime of many now involved**
    - **Excessive discharge past Carrol Gap evident, when ordinarily for many years was absorbed into downstream inflows.**
- **Apply those learnings to a new WSP**
- **Existing ~~or revised Existing~~ WSP can be left in place for time being**

Adoption of a new WSP must only be made after this drought is over and lessons learned applied after a new round of Public consultation, enabling all to participate.

2) <u>Inter-relationship with other WSP's</u>

Clearly the WSPPS interfaces with other WSP's both Surface and Groundwater. The WSP as presented does not define or deal with these interfaces and how they interact. For example:

- **Peel Enviro water extinguishes on entering the Namoi**
- **Relationship between Peel and Groundwater aquifer not defined or discussed. This seemingly is related to river transmission losses**

Interaction between this WSP and other WSP's both surface and Groundwater should be defined (perhaps the Drought experience may assist in better defining this) or at least acknowledged

3) <u>Supply Endurance</u>

Whilst ultimately this may be regarded as a complex balancing act between storage, inflows, evaporation/dam losses, releases and transmission losses, I believe that there are some basic parameters, which if reinforced could significantly improve outcomes.

In essence the sum total of storage for a Dam plus inflows needs to be managed between Spill cycles. That is effectively what is available for use and cannot be exceeded without fairly obvious ramifications.

My view is that (admittedly based on no more than an eyeball observation of the statistics) is that for the Peel (Chaffey/Dungowan Dams) this needs to be:

- **Re-determine my eyeball observations on a sound evidential/statistical basis**
- **About 8yrs for Town supply and 5 yrs for Irrigation being based on observed time between spills.**

- **Clearly town needs take absolute priority.**
- **Adherence to a timeframe similar to those suggested will provide adequate time for corrective action should it be required.**

Definition of some realistic endurance parameter thinking is essential to forward planning and preparation. If nothing else it will improve on the hand to mouth experiences of recent times and the ongoing issue of water Security for Tamworth.

4) <u>Allocation Basis</u>

Quite clearly the process used previously **has failed** all users rather spectacularly. We saw 65% of Chaffey dam released over an 18 month period.

This writer initiated correspondence with TRC regarding the security of TRC supply mid 2018, concerned at the rate of release by NSWW and where that would leave Tamworth.

This point needs to be considered in conjunction with 3) Supply Endurance above. It is understood that the previous methodology ran to a 2 year cycle with no prediction forward after that.

Whilst irrigators may accept that basis it provides limited security to High Security users.

Mathematically and statistically there can be a very complicated discussion above the essence of my submission, however, it is suggested the algorithm used looks something like:

- Allocations should be moved to an "in the bank" basis rather than based on anticipated inflows as is current practice.
- Apply long term forecasting practice to these determinations
- Whilst focus of this is obviously on High Security use, it should be noted that currently TRC do not take their full allocation and that with the recent implementation of the Chaffey to Dungowan pipeline strategy this allocation will not be fully utilised for a number of years, however, it will grow dependent on growth of Tamworth.
    - The interaction with Supply from Dungowan Dam needs to be considered and factored in to this, however whilst historically Dungowan supplies 60% Tamworth, that does not happen in situations such as current, when all demand reverts back onto Chaffey.
- Determination of an appropriate Algorithm will be a hotly debated subject however, as a start point may I suggest:
- Inflows
    - Not allocated until after High Security met (year after)
    - No use of predicting forward inflows, all inflows to be "in the bank first"
- Evaporation and Losses
    - Ordinarily as is current practice these are allowed for in the manner dam level is reported – ie effectively come out of inflows
    - Is there a better way ??
- TRC & High Security
    - Calculation is on a rolling basis
    - Based on worst inflow case
    - Commence with current year + yr 2 full allocation 100%
    - Yr 3 at 70% full allocation
    - Yr 4 at 50%
    - This will mean 320% of Full Allocation = 52 GL
    - Bank forward 1 yr unused allocation to top up yr3, 4 successively. This will need adjustment as TRC water use grows in the future.
    - Subtract water available in Dungowan from these figures

    - This roughly equates to the previously 40% capacity rule (pre-augmentation) for cessation of irrigation albeit that it will be 40GL versus 25GL.
- Enviro
    - Banked and stored as mandated
    - Yearly allowances held over in wetter years ie not released
    - Emphasis on keeping for when it is needed ie dry periods like now
- Irrigation
    - Transmission losses will not be an issue for supply to TRC now the Chaffey to Dungowan pipeline link is in place
    - These need to be considered as part of the irrigation equation and factored into annual allocations.
    - Once water is above TRC, + losses, + Enviro water can be allocated for irrigation. Proposal outlined above is not dissimilar to the previous 40% cutoff.

The current methodology has failed to serve TRC High Security adequately and needs improvement. The discussion above is a suggested start point for ongoing discussion. Key points are that inflows predicted forward on worst case inflows, predicted ahead inflows are not used, Environmental releases better applied/timed to maintain ability to service drought conditions.

5) Water Accounting

The current WSP was undoubtedly developed in the very early days of the MDBA and prior to augmentation of Chaffey Dam in 2016. Subsequent to that Augmentation and without amendment of the WSP certain Enviro flow criteria were implemented.

Since the augmentation of Chaffey NSWW released water until Chaffey at 25% augmented capacity versus 40% previously. Whilst this is same total the timing put residents on a short adjustment curve in the hotter part of the year

- **TRC currently base Drought Management Plans on % capacity of Chaffey**
- **This currently includes Enviro and Evaporation & Losses**
- **Whilst perhaps a matter for TRC visibility of these factors improves public perception of management**

It is suggested that NSWW report on water available in various useage compartments, rather than an aggregate capacity in order that users are not blindsided by a sudden capacity drop emanating from an Enviro release and that the Town/High Security Compartments be similarly reported for transparency and awareness.

6) Valley Specific Factors

The Peel Valley operates differently to other areas of Australia. It is believed that there is an over-arching view that one size fits all approach is best and perhaps simplifies the administration. Examples for consideration are:

- **Peel does not have any controls or storage below dams that generate a year round pool/level**
- **Much/majority of use is evenly spread versus annual cropping basis elsewhere**
- **Use is not as high demand as for example 10ML per Ha.**
- **Irrigation is more time of need dependent than other locations**
- **High water prices drive efficiency in Peel**
- **Flow characteristics of river are that water passes much faster than eg Murray River**
- **Water year June based, does that actually suit our growing season?**

- **Frequency of determinations, yearly, limits flexibility, would more frequent be beneficial?**

In light of the above points the Peel WSP needs to be considered on own merits and not be constrained by a one size fits all approach driven by State or Federal limitations. However, it is appreciated that certain administrative aspects must be consistent across all WSP's.

7) <u>High Security</u>

As an observation we are seeing various moves made to secure High Security Water by non utility operations. Some of these appear to have been successful. NSWW policy as displayed seeming suggests High Security classification is for Utilities only.

- **Various moves have/are being made by Non Utility users for High Security Water**
- **This is at variance with stated policies of NSW Gov.**
- **The definition of High Security is seemingly critical Human needs**

The proposed WSP is silent on this point. It is suggested this issue be addressed as part of the WSPPS and that future allocations to this category be strictly applied in accord with correct definition.

8) <u>Development Applications</u>

Ongoing development is accepted a part of growth of society. Whilst that is necessary, it should be conducted in accord with integrity and honesty with respect to impact on water supplies.

- **Anecdotally we see too many of these go forward on inadequately secured and understated water demand calculations.**
- **The issue then arises that in operation there becomes an urgent demand for more water with undue and unfair pressure applied to resolve the issue. In some cases this means other users are outbid or farmland is bought up for use of those water entitlements.**

This aspect is not addressed in the proposed WSP and whilst this submission is with respect to Peel Surface, there are impacts on Groundwater in other WSP's. There remains a danger that Peel Groundwater once aggregated in to Namoi becomes traded away from Peel users. Furthermore emphasis should be placed on accountability of organisations where this becomes an issue,

9) <u>Environmental Water</u>

The concept of Environmental Water is considered quite reasonable and socially responsible. The following points are made:

- **Currently Enviro water can be held by State and Federal**
- **From 2017-2018 Water Balance we have seen (and these would have been first since the augmentation of Chaffey) the scale of these.**
- **There was no net benefit further down the Namoi system for the Peel Users (Town and Irrigation) of these releases that have compounded the situation they now face,**
- **It may be opinion, however, environmental water is that only and is reasonably intended to extend all the way down the system, especially in drought. It is unreasonable to see people adversely impacted by allocation of Environmental water watch it consumed further downstream without benefit to the environment.**

The proposed WSP does not detail how Environmental Water of the WSPPS will be managed. Experience suggests it has been released too early to the point there is none left to assist the current Drought situation, which is also a point at which it was desperately needed. As such more

work is needed in this area. It is also considered that this be moved beyond the sphere of political influence. It is galling to see TRC residents on restrictions when this Peel enviro water disappeared once it reached the Namoi.

10) Integration with MDBA Plans

It is understood that WSP's are a requirement under the MDBA. The proposed WSP does not detail how this is integrated and the linkages in operation.

11) Water Trading

It is noted that there are mooted changes allowing downstream users to access/trade from upstream. Having observed this across the basin, and considering the wider issue of separation of licences from land, it is my very strong view that for this WSPPS:

- **All trading in and out of Peel Valley be dis-allowed**
- **Peel Valley water remains in Peel Valley 100%**
- **Users outside of valley not determine Water Security of Tamworth**
- **Above also applies to the issue of Groundwater, where proposal is to merge the Peel Groundwater with the Wider Namoi**

Water trading in this WSP must only be allowable within the Valley

12) Irrigation

Nothing in this submission is to be construed that I do not support irrigation. This is on the basis that it is conducted on a sustainable basis that does not over-extract to the detriment of others.

Typically the Peel Valley is oriented to pasture and fodder operations. In the current drought those fodder operations have assisted animal production in the valley and surrounds. Significantly we also have dairies which are now impacted.

It is noted that irrigation bodies exist, are well organized and vocal. With respect and balancing their needs with other users the following points are made:

- **Looking at allocations, 38 GL General Security plus 16GL High Security do not divide to well into 100GL Dam**
- **It understood that average irrigation use is capped to 1993 levels under the MDBA.**
- **Under other headings various points relative to irrigation have been mentioned, these will not be repeated here**
- **Could the industry be more pro-active in seeking to balance their needs with others?**
- **Could the issue of over-allocation and sleeper licences be addressed?**
- **Carryover is reasonable for finishing a crop, however not at multiple times the allocation**
- **The delays in implementing metering are noted, is the cost of this something the Gov. could pick up for small operators?**
- **NSWW/DPI have claimed inefficiencies in water ordering and uptake was responsible for high flows out of the valley, can a better process be implemented?**
- **Is the one size fits all approach appropriate for the Peel**
- **Are the determination timings appropriate (yearly June) and would different/more frequent assist**
- **Is it possible to add a General Security – High Reliability (valued at a premium over General security) category which I understand has existed in the past to better cater for Dairy and Animal husbandry operations??**

Irrigation and especially that related to food production is an important part of the Peel Valley. Irrigators have always struggled for many years to achieve a cheap and reliable supply of water for their needs. For those dependent on the Peel Alluvium this drought will likely resolve the well debated issue of the connection between the Peel River and the Alluvium. It would be a win/win to have the industry present water saving issues from within that will assist the overall water security issue.

13) **Economic Aspects**

Clearly drought impacts the whole community in some form or another. Sound water management and proper planning will serve to ameliorate such impacts. Whilst there is pressure from high application water use operations, it would seem intuitive to look at the relative multiplier where a megalitre of water was expended on fodder, which grows an animal which is then processed all using local labour versus a large seasonal crop which is harvested and exported. Importantly there is competition between the two.

14) **Ministerial Interventions**

Whilst perhaps an observation based on personal experience, I see too many instances of "at the discretion of the Minister". The WSP is a community driven Plan which should reliably provide benefit to all. Unfortunately as we have experienced there are occasions where intervention has occurred and not served communities well.

Appreciating the need for the role of the Minister, it is suggested that situations where this is appropriate or needed be more succinctly detailed within the WSP.

15) **WSP's Generally**

The complexity of the system around water management is something I have struggled with, many others also say similar.

Simplification of the process would no doubt encourage more active participation and a far greater understanding.

16) **Acknowledgements**

I would like to acknowledge efforts being applied by all levels of Government, Local, State and Federal. There is no right time for this discussion and we are in a diabolical situation. It is imperative that ideas which pop up are not forgotten, nor deferred to another day when and if a "normal" operation returns, they become irrelevant because there is no longer a current issue.

This is my own personal effort acting solely as an individual without collaborating with any other interest. I do reserve the right to collaborate with others in the future.

Thankyou for your consideration of my submission.

Regards,

[redacted]

The Water Resource Plan contains a lot of information that should not have any impact on the capacity of NSW Government to Manage Water through the legislative instruments such as the State Water Sharing plans. I do not support the WRP being used for future water reductions as the NSW Department have stated numerous times the WRP has no bearing on the regulatory Water Sharing Plan arrangements in NSW. The Long term environmental watering plan must only be used to guide held environmental water use. It is not to be used to assess the objectives and strategies in the Water Sharing Plan or WRP.

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Sent from my iPhone

On behalf of the Wee Waa Chamber of Commerce, I wish to make this submission following the well-attended public meeting held in Wee Waa on 15th Nvember, 2019.

The Wee Waa Chamber of Commerce wishes to make clear to you the following:-
The draft public exhibition regulation for the Water Sharing Plan for the Upper and Lower Namoi Regulated River Water Source 2020 needs substantial changes. Over 300 people attended meetings in Wee Waa, 150 in Narrabri and 80 in Gunnedah to let the department know **the draft plan is not acceptable in its current form.**
The NSW Government must recognise and allow all valleys in NSW to access their legal take limits as set out in the existing Water Sharing plan as Long Term Average Annual Extraction (known as baseline diversion limit). These will transfer to the Sustainable diversion limit under the Basin Plan.
The Namoi Valley is **well under these limits** and as such a rule change to supplementary rules (allowing changed timing to access high flows) is proposed as a way to help the community be resilient to droughts or recover faster from drought.
Option 2 should be included in the new Water sharing plan rules. The department should fulfil their commitment to provide yourself, Minister Kean, Marshall Stokes and Deputy Premier Barilaro the full story on the benefits of the change. This should include socio economic assessment and how the change is a substantial benefit to businesses' capacity to recover and be resilient to drought.
Option 2 was developed by farmers and businesses in the Namoi with the help of an aquatic ecologist and modeller, and is a sensible and practical option that delivers outcomes for the environment and our community. This option provides increased protection for the environment, whilst also giving our community a chance to continue to be productive and have a future.
Many of the detailed rules in the plan have been changed. We request they revert back to the existing water sharing plan clauses. In this regard we support the Namoi Water detailed submission.
At the Wee Waa meeting the department confirmed the supplementary access rule in our plan is NOT planned environmental water. The department need to change the draft plan to remove supplementary access from the definition of planned environment water.
We do not support either permanent or temporary trade from the Peel into the Namoi if it has a negative impact on the Lower Namoi water licences and therefore our community.
Your department needs to remove all mention of the Long term environmental watering plan in the water sharing plan and monitoring plans. It was confirmed that this document is not a statutory document under NSW or Commonwealth Law and it's purpose should only be used to guide how held environmental water is used.
The Monitoring & Evaluation plan for Economic objectives must be finalised with community input.
The NSW Government and Department of Planning, Industry & Environment can achieve a positive outcome for our community if these changes are made to ensure the communities of the Namoi can have a sustainable future.

As a representative community organization we are extremely concerned that the views expressed by members of the public at the Wee Waa Water Sharing Plan meeting on 15th November, 2019 are not being taken on board by your staff. Some staffers who spoke at the meeting were overheard on their plane flight later that day discussing how they were going to "counter" our

community's arguments. We find this vey concerning as it confirms our strong suspicions that there is no true consultative process; our arguments do not need countering, they just need to be included in the decision-making process. Failure to do so will result in an ill-informed decision, and the death of our town.

Regards
Sonia Fogarty – Secretary
Wee Waa Chamber of Commerce

Proposal to support establishment of a reserve in Lake Keepit for social and non-agrarian economic benefit

Proposal for a legislated minimum storage level
for Keepit Dam of 42,551 ML (10% capacity)

Proposal for a legislated minimum storage level for Keepit Dam of 42,551 ML (10% capacity)

1. It is proposed that there should be a legislated minimum storage level for Keepit Dam of 42,551 ML (representing 10% of its capacity). This is to ensure that an adequate amount of water is permanently retained in Keepit Dam to meet the following social, cultural, economic and environmental needs of the community and catchment:

- enabling the operation of longstanding recreational water activities at Keepit Dam
- supporting recreational fishing in the Namoi
- delivering environmental outcomes for the Commonwealth Environmental Waterholder
- enabling Keepit Dam to function as a drought refuge for native aquatic species and native birds
- supporting the DPI Fisheries classification of Lake Keepit as Priority 1 for Fish Stocking releases for Murray Cod and Silver Perch.

2. Further information about the needs mentioned above are in the Attachment.

Background

3. Keepit Dam is a popular inland sport and recreation destination near Tamworth, offering year-round attractions for water sports and fishing enthusiasts, nature lovers, bushwalkers, campers and picnickers. The lake foreshores are home to the popular Lake Keepit Reflections Holiday Park (owned by NSW Crown Holiday Parks Land Manager) and a NSW Sport and Recreation Centre.

4. There is currently no legislated minimum storage level for Keepit Dam. The dam level is currently at 0.5%. This is far below the level that is adequate to meet the needs mentioned above.

5. The proposed minimum storage level of 42,551 ML represents 10% of the capacity of Lake Keepit. This is a ‘once only’ as it is not released and therefore does not require replenishing. Due to the extent of on-farm storage the retention of 10% ‘once only’ should have little to no effect on the long term availability of water to water access licence (WAL) holders. The minimum storage level of 10% proposed has been shown to be the minimum level that provides water for the needs outlined in [1] above. People who have a long history of association with Lake Keepit know that 10% is the bare minimum for sailing and power boat regattas, and even then some classes of events could not be held. The 10% minimum would provide sufficient water for environmental needs for fish and birds, and for recreational fishing.

6. The so called ‘transmission losses’ are, for the most part, actually recharge for the Namoi alluvial aquifer. The ground water WAL in these aquifers are in effect surface water allocations from Keepit Dam and should be accounted for as such. Releases designated as ‘transmission losses’ are a most significant proportion of stored water; eg in July-December 2018 releases totalling 79,881 ML were made up of General Security WAL 40,000 ML, Commonwealth Environmental Water 5,500 ML, Stock and Domestic/Utilities 450 ML which leaves 33,931 ML as ‘transmission loss’ or 42% water released.

6 February 2019

Attachment: Social, cultural, economic and environmental needs of the community and catchment

Social and cultural

Original purpose of construction of the dam

1. Keepit Dam was not constructed for the primary purpose of broad-scale crop irrigation. The American cotton farmers, Paul Kahl and Frank Hadley were encouraged to go to the Murrumbidgee Irrigation Area (MIA) and were even offered free land and free water to go there. Even at the field day for the first crop in 1962 officials were still insisting farmers interested in growing cotton should go south. Irrigation dams Burrinjuck and Wyangala and irrigation areas MIA, Colleambally, Jemalong and Wildes Plains were already in operation.

2. When opened in 1960 the Government did not have plans for the use of water impounded by Keepit Dam other than for conservation. The name 'Lake Keepit' was used by Government and community from its inception in 1960.

Recreational water use

3. The permanency of an adequate water storage level in Keepit Dam was the fundamental basis for the establishment of the following:

- Lake Keepit Family Fishing Club (1980s)
- Lake Keepit Aquatic Club (1960)
- Lake Keepit Sailing Club (1960)
- Lake Keepit Sport and Recreation Centre (1961) - originally Lake Keepit National Fitness Centre
- Lake Keepit Reflections Holiday Park - originally Lake Keepit State Recreation Area 1960.

Fishing Clubs

4. Fishing Clubs calling Lake Keepit home include Lake Keepit Family Fishing Club, The Pub Angling Club (Tamworth), Gunnedah Services & Bowling Fishing Club, Somerton Fishing Club, Wee Waa Fishing Club, Pilliga Fishing Club, Boggabri Fishing Club, Glen Innes Fishing Club, Manilla Fishing Club and Haven't Caught a Fish Yet Fishing Club (Bourke).

5. The Lake Keepit Family Fishing Club since the 1980s has conducted regular monthly fishing competitions; promoted fishing rules compliance; catch and release ethos; and promoted fishing as a recreation for families. It conducts the Carp Muster and Ozfish programs as well as providing opportunity for persons with disabilities (Fishability). Lake Keepit Family Fishing Club assists NSW DPI Fisheries in restocking Fish Releases in Lake Keepit. This long term involvement is demonstrated by the following table of fish releases in Keepit. Club members volunteering time and donating materials built the Clubhouse in 1996.

6. The Club has cancelled Carp Muster and Fishability this year 2018/19 due to unacceptably low water levels.

Aquatic Club

7. Lake Keepit Aquatic Club was an extremely active club in the first 3 decades after forming in 1960. This Club conducted major events involving 100s of participants and 1000s of spectators as well as a regular Club program. The low and uncertain water levels have had a severely debilitating effect on the Club to the extent that it is currently in 'standby' mode.

Sailing Club

8. Lake Keepit Sailing Club was formed in 1960 and has operated continuously since then. Volunteers built the iconic Clubhouse which was opened in 1967. The Club hosted State level sailing events such as 1992 State Maricat titles with 120 boats and 600 participants. The Club can no longer host such events due to the uncertainty of water levels.

9. The Club's major regatta, the Keepit Kool, is held in June each year and is the principal source of Club revenue. This Regatta, now in its 51st year, has been in doubt in recent years due to the uncertainty of water levels. This Regatta draws sailors and their families from across Australia. Reduced numbers has a severe impact on Club finances.

10. Lake Keepit Sailing Club provides social and recreational sailing opportunities for all ages and levels of ability. Totally volunteer run, the Club provides the only inland recreational and competitive sailing facilities with training to national standards in northern NSW. The training is provided by the Club's Discover Sailing Centre (auspiced by Australian Sailing) with the Club's accredited volunteer instructors and Club boats. This training attracts learner sailors from as far afield as South Australia, Armidale, Narrabri, Moree, Port Stephens, Canberra as well as Tamworth and Gunnedah.

11. The Club volunteers provide 'accessible sailing' opportunities for people with disabilities and their supporting carers.

12. Lake Keepit Sailing Club has suspended its sailing calendar as from December 2018 and cancelled Discover Sailing Centre courses normally programmed for December and January, and every weekend from February onwards, are now deleted from the Club Calendar due to the unacceptably low water levels. School holiday sailing camp courses (April), Keepit Kup and Thunderbolt Regattas (March), and Keepit Kool Regatta (June) are all impossible to plan for.

Lake Keepit Sport & Recreation Centre (originally National Fitness Camp)

13. Lake Keepit Sport & Recreation Centre (originally National Fitness Camp) was opened in 1961. This location was selected ahead of five other sites in the region due to its abundance of water. Currently investment in infrastructure is estimated to be $20,000,000 with an on-going annual maintenance programme costing $100,000. The 15 full time staff plus contracted trades service 5,000 people each year averaging 100 a week for a week's stay. This centre relies a great deal on its water activities to attract clients, conversely low water levels scare away clients with two large bookings already cancelled this year. Lake Keepit Sport & Recreation Centre is a significant employer and economic driver benefitting Gunnedah, Manilla and Tamworth.

Lake Keepit Reflections Holiday Park

14. Lake Keepit Reflections Holiday Park began in 1966 with a free entry recreation area supported by Water Conservation & Irrigation Commission (WC&IC) who provided the Kiosk (Construction Camp Canteen) and other buildings. WC&IC encouraged the large number of volunteers who laboured with chainsaws, utes and tractors to clear the main basin of Lake Keepit of trees and stumps. In 2007 WaterNSW authorised the removal and relocation of a further 370 stumps so as to expand the safe area for boating. This was carried out by Soil Conservation of NSW with NSW DPI Fisheries oversight of the project. WC&IC also encouraged the Boy Scouts (Sea Scouts) to set up at Lake Keepit by providing buildings for their use, approved a floating fuel pontoon to enable the rapid refuelling of ski boats and encouraged the formation of the original Lake Keepit Boat and Aquatic Club which soon became two Clubs – Aquatic and Sailing. WC&IC set up a Trust of local representatives to oversee the improvements to the Recreation Area. Owners of caravans were permitted to park on permanent sites. These are now in The Gums Caravan Park – 72 vans with modern amenities.

15. Lake Keepit Reflections Holiday Park has been continually improved and upgraded with modern cabins and powered van sites, unpowered and bush camping sites, sealed roads, water treatment plant, extra boat ramps, toilets, showers, BBQ in picnic areas, children's water park, tennis courts, BMX track, fish cleaning facility, designated swimming area and pontoon, and the recently commissioned state of the art Fire Protection System which was officially opened in February.

16. Lake Keepit Reflections Holiday Park has been renowned for its professionally maintained green picnic and children's play areas. Now, with the water level so far below the pumps, the Park grounds are brown and dry; trees are dying; and potable water is being trucked in from Gunnedah. The extremely low water level in Lake Keepit will have a long term negative effect on Park finances with the short fall needing to come from the NSW Government – the owner of WaterNSW.

Mental health benefits

17. The contribution of a natural space, such as Lake Keepit when maintained at a level perceived by the community to be fair and reasonable, is recognised by mental health professionals as contributing to the mental health and well-being of the wider community. The therapeutic benefit provided by 'adequate water' in Lake Keepit to well-being (mental health) is valued by people from a vast area of north western NSW. Owners of vans in The Gums Caravan area in Reflections Holiday Park come from all over the Namoi region and further. Lake Keepit recreational water users frequently comment on the value to their well-being of just being near, or on, the water. The economic value of well-being in the community may be taken for granted whereas the cost of poor mental health is recognised by most people.

Economic

18. Lake Keepit supports one of NSW's most important recreational fisheries.[1]

19. It is estimated that the value of recreational fishing in the Namoi-Peel valley is over $45,000,000 per year (MDBA 2012).[2]

Environmental

20. The MDBA has recognised Lake Keepit as a drought refuge for native aquatic species and native birds.

21. Lake Keepit is a recognised site for a number of migratory birds [see 24 below]. The China-Australia, Japan-Australia and Republic of Korea-Australian Migratory Bird Agreements are treaties ensuring protection of important habitat for birds; and ensuring appropriate measures are taken to conserve and improve the environment of birds during their migration between these countries.

22. A study between 1982 and 1995 revealed Lake Keepit supported a diverse and abundant waterbird population where it was shown 38 waterbird species were using the lake, often in large numbers (Wettin unpublished and cited in Green & Dunkerley 1992). Over the period of the study 11 species of waterbird were observed breeding.[3]

[1] Australian Government, Commonwealth Environmental Water, Environmental Water Delivery, Namoi River, March 2012 V1.0, p 17

[2] NSW DPI, Namoi Resource Plan, Surface Water (SW14) Status and Issue Paper, 17 February 2017, p 13

[3] Australian Government, Commonwealth Environmental Water, Environmental Water Delivery, Namoi River, March 2012 V1.0, pp 17-18

23. Water-dependent species of the Namoi River[4]

The following tables [1 and 2] list species associated with the Namoi catchment and include their status in relation to the NSW *Threatened Species Conservation Act 1995,* NSW *Fisheries Management Act 1994* and Commonwealth *EPBC Act 1999.*

24. Table 1: Bird species of significance in the Namoi catchment

Common name	Scientific name	EPBC Act listing	NSW status[i]	Wetland dependent[ii]	Presence
Great egret	*Egretta alba or Ardea alba*	Migratory		Yes	Known[iii]
Glossy ibis	*Plegadis falcinellus*	Migratory		Yes	Known
Latham's snipe	*Gallinago hardwickii*	Migratory		Yes	Known
Marsh sandpiper	*Tringa stagnatilis*	Migratory		Yes	Known
Common greenshank	*Tringa nebularia*	Migratory		Yes	Known
Sharp-tailed sandpiper	*Calidris acuminata*	Migratory		Yes	Known
Caspian tern	*Hydroprogne caspia or Sterna caspia*	Migratory		Yes	Known
White-throated needletail	*Chaetura caudacuta or Hirundapus caudacutus*	Migratory		Yes	Known
Clamorous reed-warbler	*Acrocephalus stentoreus*	Migratory		Unknown	Known
Superb parrot	*Polytelis swainsonii*	Vulnerable	Threatened	Breeds in long-lived riverine trees.	Known
Australasian bittern	*Botaurus poiciloptilus*		Vulnerable	Yes	Known[iv]
Barking owl	*Ninox connivens*		Vulnerable		Known
Black-breasted buzzard	*Hamirostra melanosternon*		Vulnerable		Known
Black-necked stork	*Ephippiorhynchus asiaticus*		Endangered	Yes	Known
Black-tailed godwit	*Limosa limosa*		Vulnerable	Yes	Known
Blue-billed duck	*Oxyura australis*		Vulnerable	Yes	Known
Brolga	*Grus rubicunda*		Vulnerable	Yes	Known
Diamond firetail	*Stagonopleura guttata*		Vulnerable	Often found in riparian vegetation.	Known

[4] Australian Government, Commonwealth Environmental Water, Environmental Water Delivery, Namoi River, March 2012 V1.0, pp 79-80

Common name	Scientific name	EPBC Act listing	NSW status[i]	Wetland dependent[ii]	Presence
Freckled duck	*Stictonetta naevosa*		Vulnerable	Yes	Known
Gilbert's whistler	*Pachycephala inornata*		Vulnerable	Unknown	Known
Magpie goose	*Anseranas semipalmata*		Vulnerable	Yes	Known
Painted snipe	*Rostratula benghalensis*		Endangered	Yes	Known
Red goshawk	*Erythrotriorchis radiatus*		Critically endangered		Known
Regent honeyeater	*Xanthomyza phrygia*		Endangered		Known
Grey falcon	*Falco hypoleucos*		Vulnerable		Predicted
Square-tailed kite	*Lophoictinia isura*		Vulnerable		Known
Turquoise parrot	*Neophema pulchella*		Vulnerable		Known

i. Status in NSW is available from the NSW Department of Environment and Conservation, 1 September 2005, http://threatenedspecies.environment.nsw.gov.au/tsprofile/browse_veg.aspx (search by habitats 'forested wetlands', 'freshwater wetlands').
ii. For EPBC-listed species, wetland dependency was determined using MDBA recommendations. For NSW-listed species this was determined from species information supplied from the NSW Department of Environment and Conservation, 1 September 2005 http://threatenedspecies.environment.nsw.gov.au.
iii. Cleland, ED (2008). Identifying habitat requirements for birds on cotton farms in the Lower Namoi. Cotton Catchment Communities Cooperative Research Centre, Narrabri.
iv. NSW Department of Environment and Conservation, 1 September 2005, http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile_data.spx?id=10105&cma=Namoi

25. Table 2: Other species of significance in the Namoi catchment

Common name	Scientific name	EPBC Act listing	NSW status	Wetland Dependent[v]	Presence
Aquatic species					
River snail	*Notopala sublineata*		Endangered		Known
Purple spotted gudgeon	*Mogurnda adspersa*		Endangered		Known
Silver perch	*Bidyanus bidyanus*		Vulnerable		Known
Olive perchlet	*Ambassis agassizii*		Endangered		Known
Murray cod	*Maccullochella peelii peelii*	Vulnerable			Known
Freshwater catfish	*Tandanus tandanus*		Endangered		Known
Aquatic ecological community in the natural drainage system of the lowland catchment of the Darling River.	This community includes 21 native fish species and hundreds of native invertebrate species, many of which have not been comprehensively studied.		Endangered ecological community		Known
Non-aquatic species					
Booroolong frog	*Litoria booroolongensis*	Endangered	Endangered	Yes	Known (outside where entitlements are held).
The Bell's turtle	*Elseya belli*	Vulnerable	Vulnerable	Yes	Known (outside where the Commonwealth has entitlements).
Brush-tailed phascogale	*Phascogale tapoatafa*		Vulnerable	Often found around swamps.	Predicted
Davies tree frog	*Litoria daviesae*		Vulnerable	Yes	Known (outside where the Commonwealth has entitlements—Walcha Plateau).
Glandular frog	*Litoria subglandulosa*		Vulnerable	Yes	Known (outside where the Commonwealth has entitlements—Walcha Plateau).

Common name	Scientific name	EPBC Act listing	NSW status	Wetland Dependent[v]	Presence
Greater broad-nosed bat	*Scoteanax rueppellii*		Vulnerable	Forages along rivers.	Known
Five-clawed worm-skink	*Anomalopus mackayi*	Vulnerable	Endangered	No—inhabits damp places.	Known
Pale-headed snake	*Hoplocephalus bitorquatus*		Vulnerable	No—often found in streamside areas.	Known
Sloane's froglet	*Crinia sloanei*		Vulnerable	Yes	Known[vi]
Squirrel glider	*Petaurus norfolcensis*		Vulnerable	Unknown– utilises RRG forest as habitat.	Known
Stripe-faced dunnart	*Sminthopsis macroura*		Vulnerable	Unknown— often found along drainage lines	Known

v. For EPBC-listed species, wetland dependency was determined using MDBA recommendations. For NSW-listed species this was determined from species information supplied by the NSW Department of Environment and Conservation, 1 September 2005, http://threatenedspecies.environment.nsw.gov.au.

vi. This has been confirmed by Namoi CMA officers through email correspondence with Ms S Eagan, 9 July 2009.

Commonwealth environmental water

26. The environment water held by the Commonwealth Environmental Waterholder (CEW) could deliver greater environmental outcomes if it was quarantined from release and retained in Lake Keepit. The average annual flow in Peel River at Carroll Gap is 253,630 ML (1930-2015). This is a significant amount of environmental water in the Namoi River below Keepit that is not accounted for.

Fish stocks

27. DPI Fisheries has classified Lake Keepit as Priority 1 for Fish Stocking releases for Murray Cod and Silver Perch [see 28 below].

28. Table 3: Fish releases into Lake Keepit[5]

	Golden Perch	Murray Cod	Silver Perch	Total
19/02/1988			60,000	60,000
19/03/1989			50,000	50,000
11/12/1991		29,000		29,000
30/01/1992			102,000	102,000
14/04/1994	67,000		50,000	117,000
21/03/1995	105,000			105,000
7/03/1996	100,000			100,000
18/12/1996		42,000		42,000
11/03/1998	107,000			107,000
17/03/1998	40,000		50,000	90,000
17/12/1999		37,000		37,000
11/01/2000	22,000	22,000		44,000
1/02/2000	61,000			61,000
23/02/2000	69,000			69,000
21/12/2000			188,000	188,000
17/12/2002	61,000	37,000		98,000
17/04/2002				17,000
6/01/2004		50,000		50,000
10/03/2004	110,000			110,000
3/04/2004			50,000	50,000
1/03/2005	63,000			63,000
2005/2006	95,000	47,000	40,000	182,000
2006/2007	33,500	600		34,100
2007/2008	204,575	34,800		239,375
2008/2009	23,000			23,000
2009/2010	100,000	9,000	60,000	169,000
2010/2011	180,000			180,000
2011/2012	15,000			15,000
2012/2013	110,270			110,270
2013/2014	85,000	30,000		115,000
2015/2016	1,000	6,000		7,000
2016/2017	27,000	50,000		77,000
2017/2018	10,000			10,000
Total	1,689,345	394,400	667,000	2,750,745

[5] Lake Keepit Fishing Club and NSW DPI

Namoi: 10% Keepit Dam drought reserve

March 2019.

Issue:

Localised impacts such as water quality degradation or fish kills may occur when Keepit Dam has low storage levels. In response, a drought reserve has been proposed by some stakeholders, in addition to existing reserves. The proposed volume is 10% of Keepit Dam's 425GL maximum capacity and the reserve is not to be used downstream of the dam.

In the issue paper submitted, this water is proposed to be kept in Keepit Dam for recreational purposes within the dam, which may have subsequent environmental benefit.

Assessment tool(s):

Conduct scenario modelling to see the impact of 10% drought reserve on third parties.

Outcomes:

Water in the dams are allocated to either water accounts or existing reserves. Additional reserve means that there is more water in the dam but there is a reduction of General Security allocations.

Over the long term, the additional reserve reduces the average effective allocation (1st Oct) by around 4%. The modelling shows that the long term General Security diversion and total diversion reduce by 2% and 1.2% respectively.

The impacts on effective allocation are larger in wet years. After taking into account transmission and operating loss, around 42.5 GL additional reserve is translated to a reduction of 12% allocation.

There is slight increase on average flow at the end of the system because spills occur more often as the dams are fuller more often.

1. Background

Keepit Dam recently fell to its lowest level of around 0.5%. This results in impacts around the dam such as fish kills or recreational based activities. It was argued that a drought reserve should be kept in Keepit Dam to prevent such conditions. It was then proposed that 10% of Keepit is excluded from available water to be allocated for users in the Namoi and kept as a drought reserve. This reserve is initially intended for recreational purpose around the dam, but it may have additional local environmental benefit.

2. Model Descriptions

The base model in this report is the Pre-Basin Plan (PBP) model, which is *NamoD050.sqq*.

The scenario model is the base model that has been modified by increasing dam reserve by around 40 GL (approximately 10% of Keepit maximum volume). This is model run *NamoD094.sqq*.

For comparison purpose, the period of 1895 – 2009 water year has been used in this document.

2.1. Model assumptions and limitations

- It has been assumed that the drought reserve has to always be kept in Keepit Dam. This means that irrespective of whether it is a dry or wet year, around 42.5 GL of water cannot be allocated or released. The drought reserve is an additional volume of water to be reserved on top of the current reserve for essential requirements.
- The crop area planting decision in response to water availability in the model has been assumed to remain the same between the base and scenario model.
- Bulk water transfer occurs from Split Rock Dam to Keepit Dam. The model has been calibrated to current practice and available data. As the bulk transfer is predominantly an operational issue, there are uncertainties around the timing and volume in the model. There is also uncertainty on how WaterNSW will operate the bulk transfer if the proposed drought reserve is introduced. However, there is a higher confidence when looking at the total water availability between the two dams.
- The current model only has one accounting system for both Upper and Lower Namoi. However the Upper Namoi accounts are comparatively small compared to the Lower Namoi and therefore the relative impact of allocation can still be confidently assessed.

3. Results

3.1. Long term average values

Table 1 shows the long term average diversions in the Namoi. The total diversion reduces by around 1.2% in the scenario run, with the General Security showing the largest impact of 2%. The reduction of regulated diversion seems to have increased the total flow at Bugilbone by around 0.1%.

Considering the drought reserve of 42.5 GL under the scenario run, the impact seems smaller compared to the amount of reserve. However the impact is consistent with the relative change in effective allocation over the long term (around 4%). This is because the long term utilisation of General Security entitlement is around 60%. The change shown also takes into account the timing and opportunity of other sources of water, such as supplementary water. Due to the nature of the proposed drought account, the impact is more apparent on storage volumes and the allocation process during medium to wet years as discussed in the following sections.

Table 1 Annual Namoi usage and other water balance components (1895 – 2009)

Category	Base (PBP-D050)	Scenario (D094)	Scenario – Base (%)
Entitlements or Use Type	Long term average usage (GL/y)		
General Security (incl HEW)	151.0	148.0	-2.0
Supplementary Access	59.6	59.7	0.1
Utilities, Domestic & Stock	3.4	3.4	0.1
Total usage	231.4	229.7	-1.2
Flow at Bugilbone	538.2	539.0	0.1

3.2. Dam behaviour

The drought reserve is to be kept in Keepit Dam. Under the current set up, less bulk transfers from Split Rock are occurring because Keepit dam is held higher. As a result, spill volume from Split Rock increases by about 9%. In years when spill occurs from Keepit Dam, it is shown that the spill volumes are larger because the dam is kept fuller (Figure 3.1).

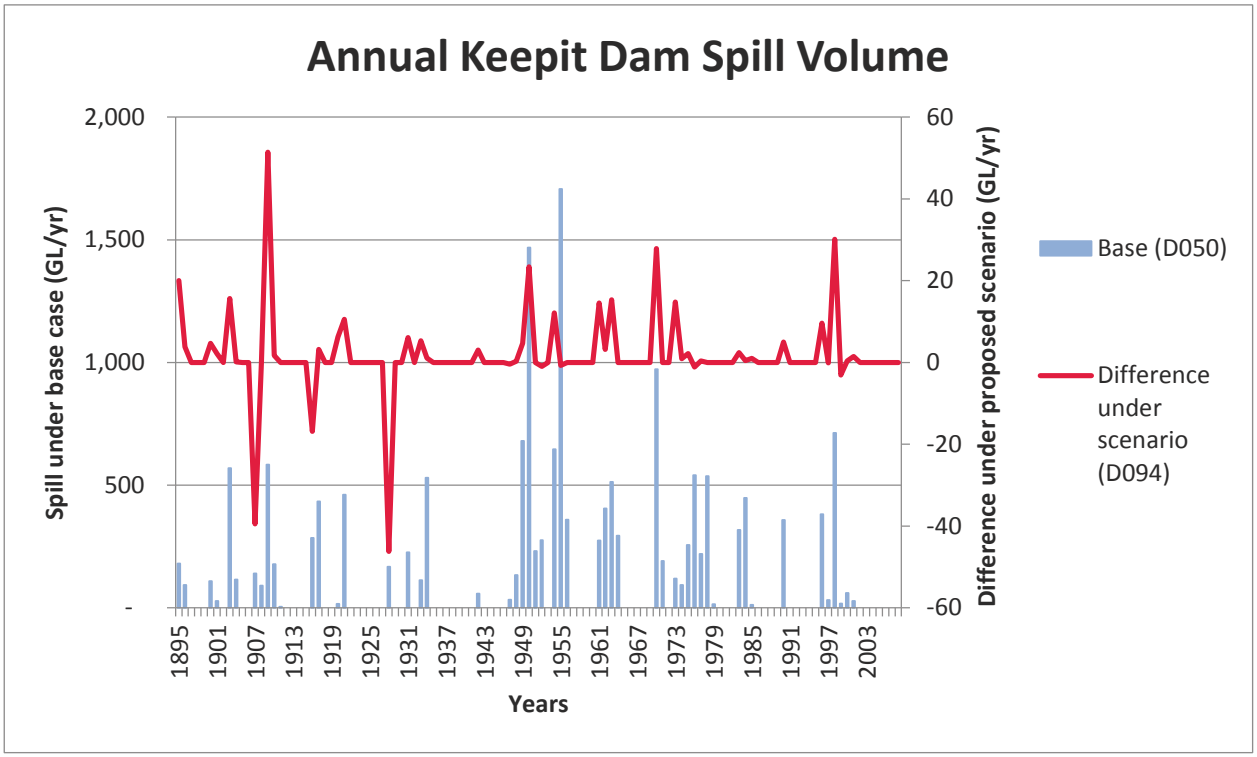

Figure 3.1 Annual total of Keepit Dam spill volume.

Since the Lower Namoi is also able to utilise excess water in Split Rock Dam, there are uncertainties around how bulk transfer will be operated by WaterNSW, given the proposed additional reserve. Therefore it is more appropriate to look at the total volume of Split Rock and Keepit to evaluate the impact. This is also consistent with the Resource Assessment process that looks at available resource in both dams.

Figure 3.2 part A shows that during dry periods, there is more water kept in the dam, consistent with the provision of drought reserve. Furthermore, part B shows that the dam volume is almost always higher under the proposed scenario. This higher volume does not necessarily mean higher allocation for General Security water users, as the additional water is kept as a drought reserve which has a higher priority over General Security and is not able to be allocated.

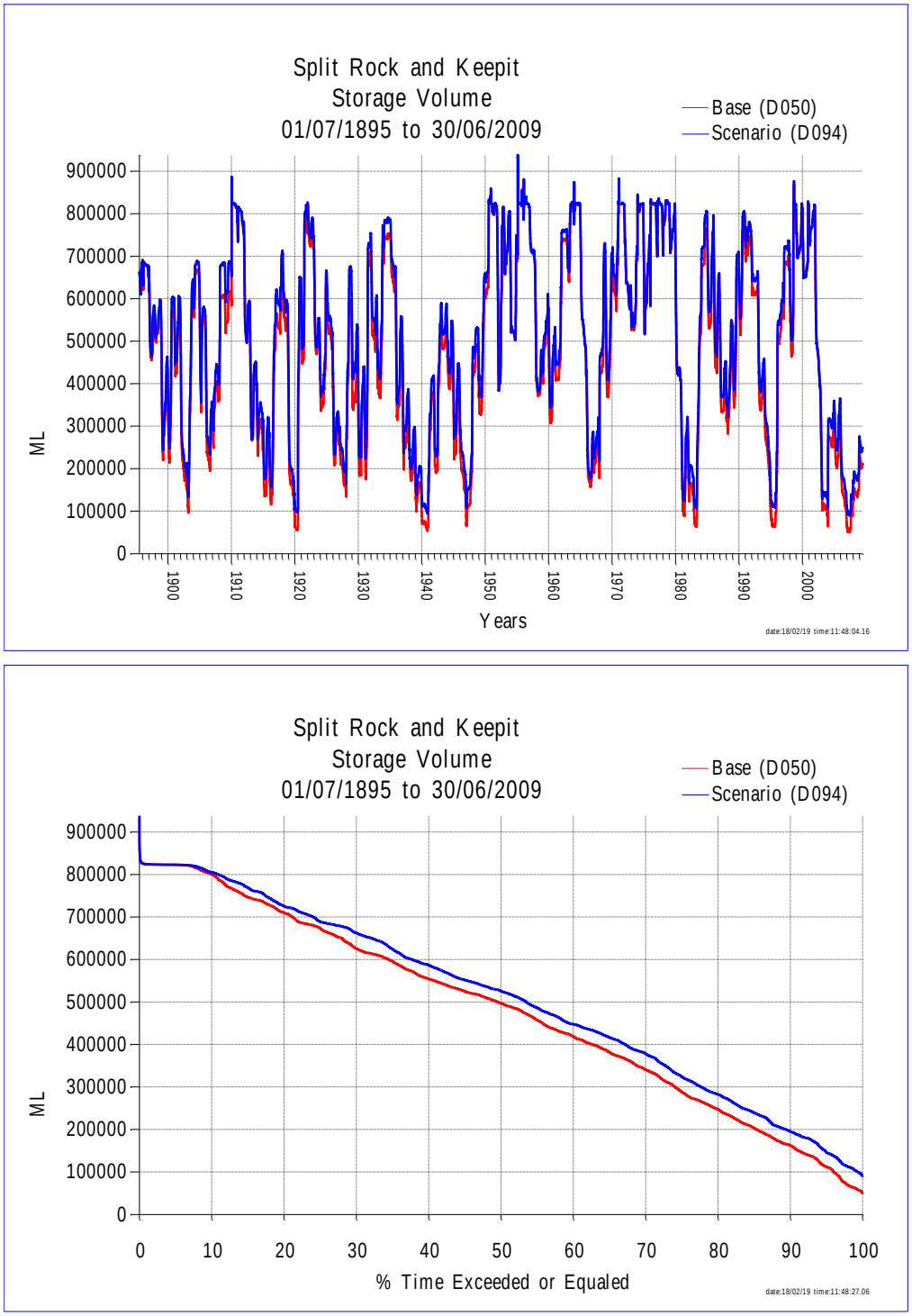

Figure 3.2 Total volume at Split Rock and Keepit. A) Daily time series; B) Frequency curve

3.3. Impact on allocation

Although it is shown that the dams hold more water (Figure 3.2), the higher volume does not necessarily mean higher allocation for General Security water users. This is because the additional water is kept as a drought reserve which has a higher priority over General Security and is not able to be allocated.

Effective allocation is useful to understand impacts on water availability for consumptive purpose. Effective allocation is the total Available Water Determination (AWD) including carry over volumes that is expressed as percentage of total General Security entitlements.

Over the long term, there is a reduction in effective allocation of around 4%. Figure 3.3 shows the General Security effective allocation on 1st October, which isan indication of total regulated water availability at the beginning of the planting season. The red line indicates the difference of the effective allocation under the proposed drought reserve compared to the base case (absolute change). In most years, there is a reduction of effective allocation (below zero line on the secondary vertical axis).

However, in some dry years (such as 1940), there is no change in allocation since there is almost no allocation under the base case. In some years, the seemingly increased allocation is because of higher carry over from previous years.

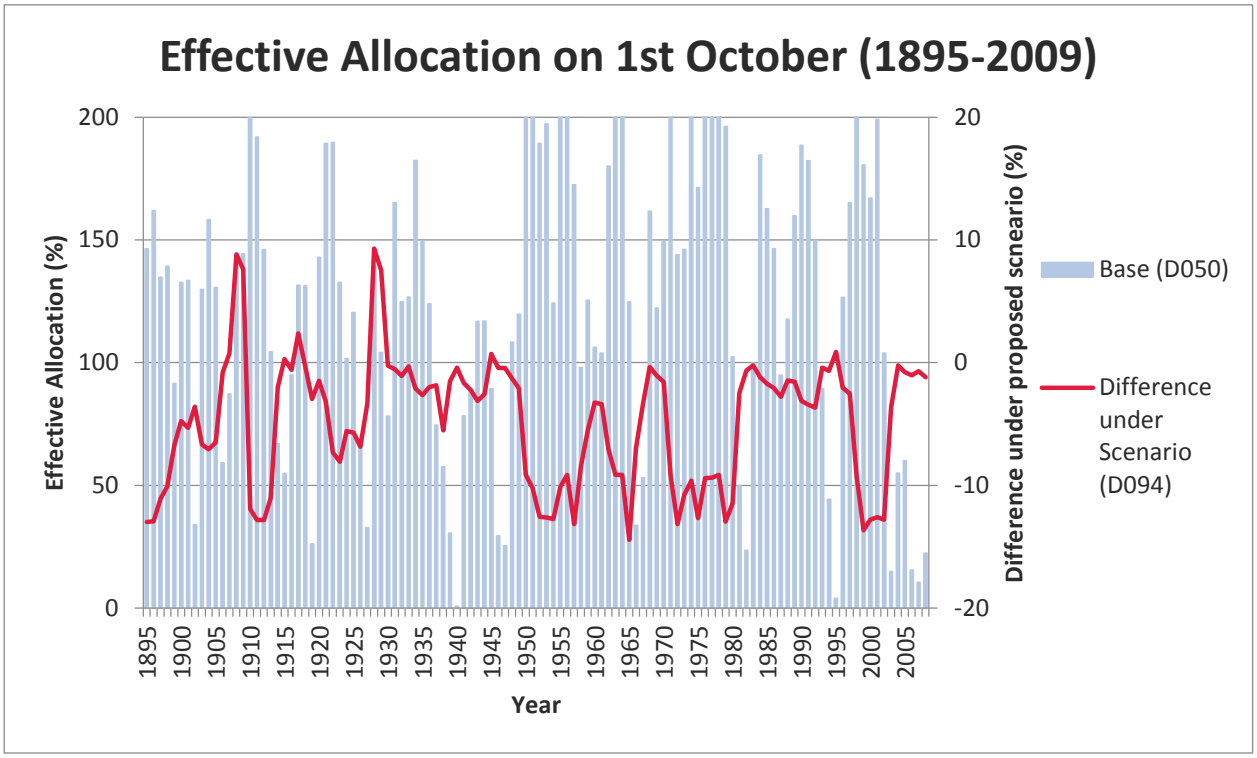

Figure 3.3 Effective allocation (Available Water Determination + Carry Over) on 1st October in 1895 - 2009. Note: the vertical axis on the right is the absoulte difference which has a unit in percentage.

Figure 3.4 shows that the change in effective allocation is most apparent during the medium to wet years. During very wet years, effective allocation is reduced by around 12% because all available water in the Namoi has been allocated under the base case. Therefore General Security accounts cannot have full 200% effective allocation anymore. This is consistent with the 42.5 GL volume of drought reserve being proposed, which is excluded from available resource to serve around 250 GL of General Security entitlement in the Namoi (after taking into account around 12 GL of transmission and operating loss).

Additionally, one of the biggest impacts will also occur at the time of implementing the rule, where 42.5 GL of available water would need to be set aside for the reserve.

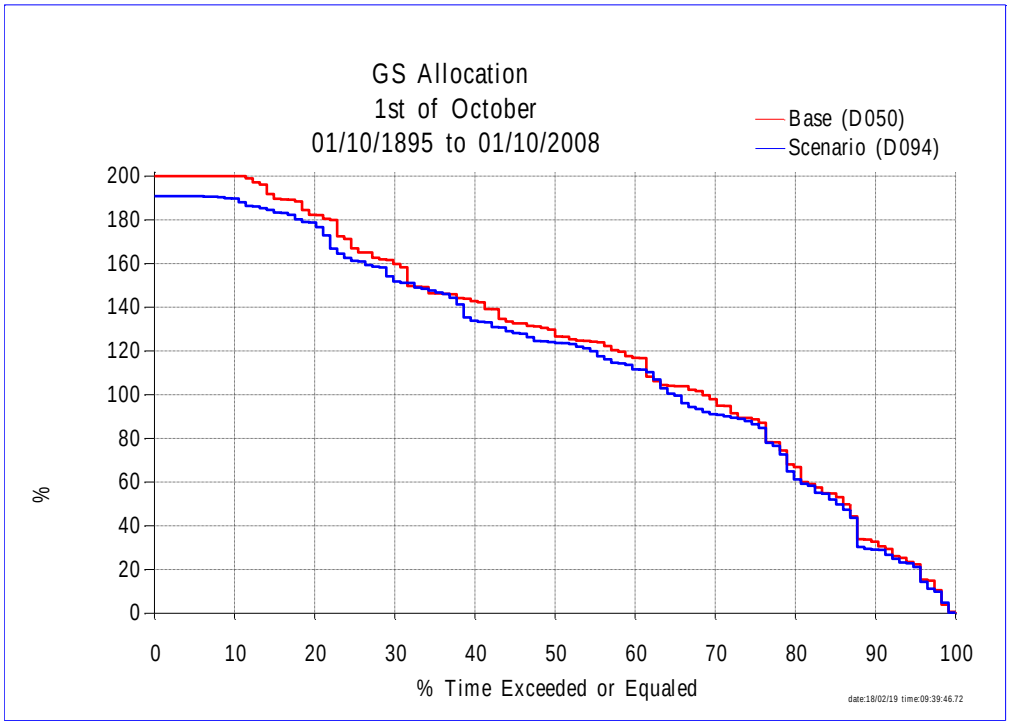

Figure 3.4 Ranked plot of effective allocation (Available Water Determination + Carry Over) on 1st October in 1895 - 2009.

3.4. Impact on flows

Table 2 shows that there is generally a slight increase on daily flows at key locations (biggest increase at Bugilbone maximum flow), except for a very slight decrease of 75th percentile of daily flows at Goangra. This is because spills occur more often, hence increasing some high flows in wet years.

Table 2 Daily flow distribution in the Lower Namoi (1895 – 2009)

Site	Flow Distribution	Base (D067) [ML/d]	Scenario (D094) [ML/d]
Namoi River at Bugilbone (419021)	***Average***	1,473.7	1,475.6
	25th Percentile	68.5	68.6
	50th Percentile	212.0	214.1
	75th Percentile	758.3	758.4
	Maximum	138,510.0	139,150.0
Namoi River at Goangra (419026)	***Average***	1,498.4	1,500.2
	25th Percentile	38.3	38.3
	50th Percentile	185.4	186.8
	75th Percentile	800.3	797.8
	Maximum	110,680.0	110,680.0
Pian Creek at Waminda (419049)	***Average***	123.8	123.9
	25th Percentile	0.0	0.0
	50th Percentile	8.4	8.4
	75th Percentile	55.3	55.5
	Maximum	31,607.0	31,607.0

4. Conclusion

This document summarises the impact of having an additional drought reserve in Keepit dam. The reserve volume proposed is 10% of Keepit Dam's capacity, which is around 42.5 GL. This effectively increases inactive storage in the dam. Therefore, there is less water being allocated for General Security water users even though there is more water in Keepit Dam.

The long term reduction (Figure 3.3) on effective allocation is around 4%. However, there is a reduction of 12% in wet years. Although there is a notable impact on water availability for consumptive users, the impacts to daily flow distribution at Bugilbone, Goangra and Waminda are relatively minor (Table 2).

Approval

Action	Staff member	Role	Signature	Date
Submitted	Michael Sugiyanto	Senior Modeller		18/03/2019
Review	Linda Holz	Lead Modeller		17/04/2019
Approved	Richard Beecham	Manager Water Modelling		01/05/2019

Published by the Department of Industry.

Proposal to support establishment of a reserve in Lake Keepit for social and non-agrarian economic benefit

Proposal for a legislated minimum storage level
for Keepit Dam of 42,551 ML (10% capacity)

Proposal for a legislated minimum storage level for Keepit Dam of 42,551 ML (10% capacity)

1. It is proposed that there should be a legislated minimum storage level for Keepit Dam of 42,551 ML (representing 10% of its capacity). This is to ensure that an adequate amount of water is permanently retained in Keepit Dam to meet the following social, cultural, economic and environmental needs of the community and catchment:

- enabling the operation of longstanding recreational water activities at Keepit Dam
- supporting recreational fishing in the Namoi
- delivering environmental outcomes for the Commonwealth Environmental Waterholder
- enabling Keepit Dam to function as a drought refuge for native aquatic species and native birds
- supporting the DPI Fisheries classification of Lake Keepit as Priority 1 for Fish Stocking releases for Murray Cod and Silver Perch.

2. Further information about the needs mentioned above are in the Attachment.

Background

3. Keepit Dam is a popular inland sport and recreation destination near Tamworth, offering year-round attractions for water sports and fishing enthusiasts, nature lovers, bushwalkers, campers and picnickers. The lake foreshores are home to the popular Lake Keepit Reflections Holiday Park (owned by NSW Crown Holiday Parks Land Manager) and a NSW Sport and Recreation Centre.

4. There is currently no legislated minimum storage level for Keepit Dam. The dam level is currently at 0.5%. This is far below the level that is adequate to meet the needs mentioned above.

5. The proposed minimum storage level of 42,551 ML represents 10% of the capacity of Lake Keepit. This is a ‘once only’ as it is not released and therefore does not require replenishing. Due to the extent of on-farm storage the retention of 10% ‘once only’ should have little to no effect on the long term availability of water to water access licence (WAL) holders. The minimum storage level of 10% proposed has been shown to be the minimum level that provides water for the needs outlined in [1] above. People who have a long history of association with Lake Keepit know that 10% is the bare minimum for sailing and power boat regattas, and even then some classes of events could not be held. The 10% minimum would provide sufficient water for environmental needs for fish and birds, and for recreational fishing.

6. The so called ‘transmission losses’ are, for the most part, actually recharge for the Namoi alluvial aquifer. The ground water WAL in these aquifers are in effect surface water allocations from Keepit Dam and should be accounted for as such. Releases designated as ‘transmission losses’ are a most significant proportion of stored water; eg in July-December 2018 releases totalling 79,881 ML were made up of General Security WAL 40,000 ML, Commonwealth Environmental Water 5,500 ML, Stock and Domestic/Utilities 450 ML which leaves 33,931 ML as ‘transmission loss’ or 42% water released.

6 February 2019

Attachment: Social, cultural, economic and environmental needs of the community and catchment

Social and cultural

Original purpose of construction of the dam

1. Keepit Dam was not constructed for the primary purpose of broad-scale crop irrigation. The American cotton farmers, Paul Kahl and Frank Hadley were encouraged to go to the Murrumbidgee Irrigation Area (MIA) and were even offered free land and free water to go there. Even at the field day for the first crop in 1962 officials were still insisting farmers interested in growing cotton should go south. Irrigation dams Burrinjuck and Wyangala and irrigation areas MIA, Colleambally, Jemalong and Wildes Plains were already in operation.

2. When opened in 1960 the Government did not have plans for the use of water impounded by Keepit Dam other than for conservation. The name 'Lake Keepit' was used by Government and community from its inception in 1960.

Recreational water use

3. The permanency of an adequate water storage level in Keepit Dam was the fundamental basis for the establishment of the following:

- Lake Keepit Family Fishing Club (1980s)
- Lake Keepit Aquatic Club (1960)
- Lake Keepit Sailing Club (1960)
- Lake Keepit Sport and Recreation Centre (1961) - originally Lake Keepit National Fitness Centre
- Lake Keepit Reflections Holiday Park - originally Lake Keepit State Recreation Area 1960.

Fishing Clubs

4. Fishing Clubs calling Lake Keepit home include Lake Keepit Family Fishing Club, The Pub Angling Club (Tamworth), Gunnedah Services & Bowling Fishing Club, Somerton Fishing Club, Wee Waa Fishing Club, Pilliga Fishing Club, Boggabri Fishing Club, Glen Innes Fishing Club, Manilla Fishing Club and Haven't Caught a Fish Yet Fishing Club (Bourke).

5. The Lake Keepit Family Fishing Club since the 1980s has conducted regular monthly fishing competitions; promoted fishing rules compliance; catch and release ethos; and promoted fishing as a recreation for families. It conducts the Carp Muster and Ozfish programs as well as providing opportunity for persons with disabilities (Fishability). Lake Keepit Family Fishing Club assists NSW DPI Fisheries in restocking Fish Releases in Lake Keepit. This long term involvement is demonstrated by the following table of fish releases in Keepit. Club members volunteering time and donating materials built the Clubhouse in 1996.

6. The Club has cancelled Carp Muster and Fishability this year 2018/19 due to unacceptably low water levels.

Aquatic Club

7. Lake Keepit Aquatic Club was an extremely active club in the first 3 decades after forming in 1960. This Club conducted major events involving 100s of participants and 1000s of spectators as well as a regular Club program. The low and uncertain water levels have had a severely debilitating effect on the Club to the extent that it is currently in 'standby' mode.

Sailing Club

8. Lake Keepit Sailing Club was formed in 1960 and has operated continuously since then. Volunteers built the iconic Clubhouse which was opened in 1967. The Club hosted State level sailing events such as 1992 State Maricat titles with 120 boats and 600 participants. The Club can no longer host such events due to the uncertainty of water levels.

9. The Club's major regatta, the Keepit Kool, is held in June each year and is the principal source of Club revenue. This Regatta, now in its 51st year, has been in doubt in recent years due to the uncertainty of water levels. This Regatta draws sailors and their families from across Australia. Reduced numbers has a severe impact on Club finances.

10. Lake Keepit Sailing Club provides social and recreational sailing opportunities for all ages and levels of ability. Totally volunteer run, the Club provides the only inland recreational and competitive sailing facilities with training to national standards in northern NSW. The training is provided by the Club's Discover Sailing Centre (auspiced by Australian Sailing) with the Club's accredited volunteer instructors and Club boats. This training attracts learner sailors from as far afield as South Australia, Armidale, Narrabri, Moree, Port Stephens, Canberra as well as Tamworth and Gunnedah.

11. The Club volunteers provide 'accessible sailing' opportunities for people with disabilities and their supporting carers.

12. Lake Keepit Sailing Club has suspended its sailing calendar as from December 2018 and cancelled Discover Sailing Centre courses normally programmed for December and January, and every weekend from February onwards, are now deleted from the Club Calendar due to the unacceptably low water levels. School holiday sailing camp courses (April), Keepit Kup and Thunderbolt Regattas (March), and Keepit Kool Regatta (June) are all impossible to plan for.

Lake Keepit Sport & Recreation Centre (originally National Fitness Camp)

13. Lake Keepit Sport & Recreation Centre (originally National Fitness Camp) was opened in 1961. This location was selected ahead of five other sites in the region due to its abundance of water. Currently investment in infrastructure is estimated to be $20,000,000 with an on-going annual maintenance programme costing $100,000. The 15 full time staff plus contracted trades service 5,000 people each year averaging 100 a week for a week's stay. This centre relies a great deal on its water activities to attract clients, conversely low water levels scare away clients with two large bookings already cancelled this year. Lake Keepit Sport & Recreation Centre is a significant employer and economic driver benefitting Gunnedah, Manilla and Tamworth.

Lake Keepit Reflections Holiday Park

14. Lake Keepit Reflections Holiday Park began in 1966 with a free entry recreation area supported by Water Conservation & Irrigation Commission (WC&IC) who provided the Kiosk (Construction Camp Canteen) and other buildings. WC&IC encouraged the large number of volunteers who laboured with chainsaws, utes and tractors to clear the main basin of Lake Keepit of trees and stumps. In 2007 WaterNSW authorised the removal and relocation of a further 370 stumps so as to expand the safe area for boating. This was carried out by Soil Conservation of NSW with NSW DPI Fisheries oversight of the project. WC&IC also encouraged the Boy Scouts (Sea Scouts) to set up at Lake Keepit by providing buildings for their use, approved a floating fuel pontoon to enable the rapid refuelling of ski boats and encouraged the formation of the original Lake Keepit Boat and Aquatic Club which soon became two Clubs – Aquatic and Sailing. WC&IC set up a Trust of local representatives to oversee the improvements to the Recreation Area. Owners of caravans were permitted to park on permanent sites. These are now in The Gums Caravan Park – 72 vans with modern amenities.

15. Lake Keepit Reflections Holiday Park has been continually improved and upgraded with modern cabins and powered van sites, unpowered and bush camping sites, sealed roads, water treatment plant, extra boat ramps, toilets, showers, BBQ in picnic areas, children's water park, tennis courts, BMX track, fish cleaning facility, designated swimming area and pontoon, and the recently commissioned state of the art Fire Protection System which was officially opened in February.

16. Lake Keepit Reflections Holiday Park has been renowned for its professionally maintained green picnic and children's play areas. Now, with the water level so far below the pumps, the Park grounds are brown and dry; trees are dying; and potable water is being trucked in from Gunnedah. The extremely low water level in Lake Keepit will have a long term negative effect on Park finances with the short fall needing to come from the NSW Government – the owner of WaterNSW.

Mental health benefits

17. The contribution of a natural space, such as Lake Keepit when maintained at a level perceived by the community to be fair and reasonable, is recognised by mental health professionals as contributing to the mental health and well-being of the wider community. The therapeutic benefit provided by 'adequate water' in Lake Keepit to well-being (mental health) is valued by people from a vast area of north western NSW. Owners of vans in The Gums Caravan area in Reflections Holiday Park come from all over the Namoi region and further. Lake Keepit recreational water users frequently comment on the value to their well-being of just being near, or on, the water. The economic value of well-being in the community may be taken for granted whereas the cost of poor mental health is recognised by most people.

Economic

18. Lake Keepit supports one of NSW's most important recreational fisheries.[1]

19. It is estimated that the value of recreational fishing in the Namoi-Peel valley is over $45,000,000 per year (MDBA 2012).[2]

Environmental

20. The MDBA has recognised Lake Keepit as a drought refuge for native aquatic species and native birds.

21. Lake Keepit is a recognised site for a number of migratory birds [see 24 below]. The China-Australia, Japan-Australia and Republic of Korea-Australian Migratory Bird Agreements are treaties ensuring protection of important habitat for birds; and ensuring appropriate measures are taken to conserve and improve the environment of birds during their migration between these countries.

22. A study between 1982 and 1995 revealed Lake Keepit supported a diverse and abundant waterbird population where it was shown 38 waterbird species were using the lake, often in large numbers (Wettin unpublished and cited in Green & Dunkerley 1992). Over the period of the study 11 species of waterbird were observed breeding.[3]

[1] Australian Government, Commonwealth Environmental Water, Environmental Water Delivery, Namoi River, March 2012 V1.0, p 17

[2] NSW DPI, Namoi Resource Plan, Surface Water (SW14) Status and Issue Paper, 17 February 2017, p 13

[3] Australian Government, Commonwealth Environmental Water, Environmental Water Delivery, Namoi River, March 2012 V1.0, pp 17-18

23. Water-dependent species of the Namoi River[4]

The following tables [1 and 2] list species associated with the Namoi catchment and include their status in relation to the NSW *Threatened Species Conservation Act 1995,* NSW *Fisheries Management Act 1994* and Commonwealth *EPBC Act 1999.*

24. Table 1: Bird species of significance in the Namoi catchment

Common name	Scientific name	EPBC Act listing	NSW status[i]	Wetland dependent[ii]	Presence
Great egret	*Egretta alba or Ardea alba*	Migratory		Yes	Known[iii]
Glossy ibis	*Plegadis falcinellus*	Migratory		Yes	Known
Latham's snipe	*Gallinago hardwickii*	Migratory		Yes	Known
Marsh sandpiper	*Tringa stagnatilis*	Migratory		Yes	Known
Common greenshank	*Tringa nebularia*	Migratory		Yes	Known
Sharp-tailed sandpiper	*Calidris acuminata*	Migratory		Yes	Known
Caspian tern	*Hydroprogne caspia or Sterna caspia*	Migratory		Yes	Known
White-throated needletail	*Chaetura caudacuta or Hirundapus caudacutus*	Migratory		Yes	Known
Clamorous reed-warbler	*Acrocephalus stentoreus*	Migratory		Unknown	Known
Superb parrot	*Polytelis swainsonii*	Vulnerable	Threatened	Breeds in long-lived riverine trees.	Known
Australasian bittern	*Botaurus poiciloptilus*		Vulnerable	Yes	Known[iv]
Barking owl	*Ninox connivens*		Vulnerable		Known
Black-breasted buzzard	*Hamirostra melanosternon*		Vulnerable		Known
Black-necked stork	*Ephippiorhynchus asiaticus*		Endangered	Yes	Known
Black-tailed godwit	*Limosa limosa*		Vulnerable	Yes	Known
Blue-billed duck	*Oxyura australis*		Vulnerable	Yes	Known
Brolga	*Grus rubicunda*		Vulnerable	Yes	Known
Diamond firetail	*Stagonopleura guttata*		Vulnerable	Often found in riparian vegetation.	Known

[4] Australian Government, Commonwealth Environmental Water, Environmental Water Delivery, Namoi River, March 2012 V1.0, pp 79-80

Common name	Scientific name	EPBC Act listing	NSW status[i]	Wetland dependent[ii]	Presence
Freckled duck	*Stictonetta naevosa*		Vulnerable	Yes	Known
Gilbert's whistler	*Pachycephala inornata*		Vulnerable	Unknown	Known
Magpie goose	*Anseranas semipalmata*		Vulnerable	Yes	Known
Painted snipe	*Rostratula benghalensis*		Endangered	Yes	Known
Red goshawk	*Erythrotriorchis radiatus*		Critically endangered		Known
Regent honeyeater	*Xanthomyza phrygia*		Endangered		Known
Grey falcon	*Falco hypoleucos*		Vulnerable		Predicted
Square-tailed kite	*Lophoictinia isura*		Vulnerable		Known
Turquoise parrot	*Neophema pulchella*		Vulnerable		Known

i. Status in NSW is available from the NSW Department of Environment and Conservation, 1 September 2005, http://threatenedspecies.environment.nsw.gov.au/tsprofile/browse_veg.aspx (search by habitats 'forested wetlands', 'freshwater wetlands').
ii. For EPBC-listed species, wetland dependency was determined using MDBA recommendations. For NSW-listed species this was determined from species information supplied from the NSW Department of Environment and Conservation, 1 September 2005 http://threatenedspecies.environment.nsw.gov.au.
iii. Cleland, ED (2008). Identifying habitat requirements for birds on cotton farms in the Lower Namoi. Cotton Catchment Communities Cooperative Research Centre, Narrabri.
iv. NSW Department of Environment and Conservation, 1 September 2005, http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile_data.spx?id=10105&cma=Namoi

25. Table 2: Other species of significance in the Namoi catchment

Common name	Scientific name	EPBC Act listing	NSW status	Wetland Dependent[v]	Presence
Aquatic species					
River snail	*Notopala sublineata*		Endangered		Known
Purple spotted gudgeon	*Mogurnda adspersa*		Endangered		Known
Silver perch	*Bidyanus bidyanus*		Vulnerable		Known
Olive perchlet	*Ambassis agassizii*		Endangered		Known
Murray cod	*Maccullochella peelii peelii*	Vulnerable			Known
Freshwater catfish	*Tandanus tandanus*		Endangered		Known
Aquatic ecological community in the natural drainage system of the lowland catchment of the Darling River.	This community includes 21 native fish species and hundreds of native invertebrate species, many of which have not been comprehensively studied.		Endangered ecological community		Known
Non-aquatic species					
Booroolong frog	*Litoria booroolongensis*	Endangered	Endangered	Yes	Known (outside where entitlements are held).
The Bell's turtle	*Elseya belli*	Vulnerable	Vulnerable	Yes	Known (outside where the Commonwealth has entitlements).
Brush-tailed phascogale	*Phascogale tapoatafa*		Vulnerable	Often found around swamps.	Predicted
Davies tree frog	*Litoria daviesae*		Vulnerable	Yes	Known (outside where the Commonwealth has entitlements—Walcha Plateau).
Glandular frog	*Litoria subglandulosa*		Vulnerable	Yes	Known (outside where the Commonwealth has entitlements—Walcha Plateau).

Common name	Scientific name	EPBC Act listing	NSW status	Wetland Dependent[v]	Presence
Greater broad-nosed bat	*Scoteanax rueppellii*		Vulnerable	Forages along rivers.	Known
Five-clawed worm-skink	*Anomalopus mackayi*	Vulnerable	Endangered	No—inhabits damp places.	Known
Pale-headed snake	*Hoplocephalus bitorquatus*		Vulnerable	No—often found in streamside areas.	Known
Sloane's froglet	*Crinia sloanei*		Vulnerable	Yes	Known[vi]
Squirrel glider	*Petaurus norfolcensis*		Vulnerable	Unknown– utilises RRG forest as habitat.	Known
Stripe-faced dunnart	*Sminthopsis macroura*		Vulnerable	Unknown— often found along drainage lines	Known

v. For EPBC-listed species, wetland dependency was determined using MDBA recommendations. For NSW-listed species this was determined from species information supplied by the NSW Department of Environment and Conservation, 1 September 2005, http://threatenedspecies.environment.nsw.gov.au.

vi. This has been confirmed by Namoi CMA officers through email correspondence with Ms S Eagan, 9 July 2009.

Commonwealth environmental water

26. The environment water held by the Commonwealth Environmental Waterholder (CEW) could deliver greater environmental outcomes if it was quarantined from release and retained in Lake Keepit. The average annual flow in Peel River at Carroll Gap is 253,630 ML (1930-2015). This is a significant amount of environmental water in the Namoi River below Keepit that is not accounted for.

Fish stocks

27. DPI Fisheries has classified Lake Keepit as Priority 1 for Fish Stocking releases for Murray Cod and Silver Perch [see 28 below].

28. Table 3: Fish releases into Lake Keepit[5]

	Golden Perch	Murray Cod	Silver Perch	Total
19/02/1988			60,000	60,000
19/03/1989			50,000	50,000
11/12/1991		29,000		29,000
30/01/1992			102,000	102,000
14/04/1994	67,000		50,000	117,000
21/03/1995	105,000			105,000
7/03/1996	100,000			100,000
18/12/1996		42,000		42,000
11/03/1998	107,000			107,000
17/03/1998	40,000		50,000	90,000
17/12/1999		37,000		37,000
11/01/2000	22,000	22,000		44,000
1/02/2000	61,000			61,000
23/02/2000	69,000			69,000
21/12/2000			188,000	188,000
17/12/2002	61,000	37,000		98,000
17/04/2002				17,000
6/01/2004		50,000		50,000
10/03/2004	110,000			110,000
3/04/2004			50,000	50,000
1/03/2005	63,000			63,000
2005/2006	95,000	47,000	40,000	182,000
2006/2007	33,500	600		34,100
2007/2008	204,575	34,800		239,375
2008/2009	23,000			23,000
2009/2010	100,000	9,000	60,000	169,000
2010/2011	180,000			180,000
2011/2012	15,000			15,000
2012/2013	110,270			110,270
2013/2014	85,000	30,000		115,000
2015/2016	1,000	6,000		7,000
2016/2017	27,000	50,000		77,000
2017/2018	10,000			10,000
Total	1,689,345	394,400	667,000	2,750,745

[5] Lake Keepit Fishing Club and NSW DPI

Namoi: 10% Keepit Dam drought reserve

March 2019.

Issue:

Localised impacts such as water quality degradation or fish kills may occur when Keepit Dam has low storage levels. In response, a drought reserve has been proposed by some stakeholders, in addition to existing reserves. The proposed volume is 10% of Keepit Dam's 425GL maximum capacity and the reserve is not to be used downstream of the dam.

In the issue paper submitted, this water is proposed to be kept in Keepit Dam for recreational purposes within the dam, which may have subsequent environmental benefit.

Assessment tool(s):

Conduct scenario modelling to see the impact of 10% drought reserve on third parties.

Outcomes:

Water in the dams are allocated to either water accounts or existing reserves. Additional reserve means that there is more water in the dam but there is a reduction of General Security allocations.

Over the long term, the additional reserve reduces the average effective allocation (1st Oct) by around 4%. The modelling shows that the long term General Security diversion and total diversion reduce by 2% and 1.2% respectively.

The impacts on effective allocation are larger in wet years. After taking into account transmission and operating loss, around 42.5 GL additional reserve is translated to a reduction of 12% allocation.

There is slight increase on average flow at the end of the system because spills occur more often as the dams are fuller more often.

1. Background

Keepit Dam recently fell to its lowest level of around 0.5%. This results in impacts around the dam such as fish kills or recreational based activities. It was argued that a drought reserve should be kept in Keepit Dam to prevent such conditions. It was then proposed that 10% of Keepit is excluded from available water to be allocated for users in the Namoi and kept as a drought reserve. This reserve is initially intended for recreational purpose around the dam, but it may have additional local environmental benefit.

2. Model Descriptions

The base model in this report is the Pre-Basin Plan (PBP) model, which is *NamoD050.sqq*.

The scenario model is the base model that has been modified by increasing dam reserve by around 40 GL (approximately 10% of Keepit maximum volume). This is model run *NamoD094.sqq*.

For comparison purpose, the period of 1895 – 2009 water year has been used in this document.

2.1. Model assumptions and limitations

- It has been assumed that the drought reserve has to always be kept in Keepit Dam. This means that irrespective of whether it is a dry or wet year, around 42.5 GL of water cannot be allocated or released. The drought reserve is an additional volume of water to be reserved on top of the current reserve for essential requirements.
- The crop area planting decision in response to water availability in the model has been assumed to remain the same between the base and scenario model.
- Bulk water transfer occurs from Split Rock Dam to Keepit Dam. The model has been calibrated to current practice and available data. As the bulk transfer is predominantly an operational issue, there are uncertainties around the timing and volume in the model. There is also uncertainty on how WaterNSW will operate the bulk transfer if the proposed drought reserve is introduced. However, there is a higher confidence when looking at the total water availability between the two dams.
- The current model only has one accounting system for both Upper and Lower Namoi. However the Upper Namoi accounts are comparatively small compared to the Lower Namoi and therefore the relative impact of allocation can still be confidently assessed.

3. Results

3.1. Long term average values

Table 1 shows the long term average diversions in the Namoi. The total diversion reduces by around 1.2% in the scenario run, with the General Security showing the largest impact of 2%. The reduction of regulated diversion seems to have increased the total flow at Bugilbone by around 0.1%.

Considering the drought reserve of 42.5 GL under the scenario run, the impact seems smaller compared to the amount of reserve. However the impact is consistent with the relative change in effective allocation over the long term (around 4%). This is because the long term utilisation of General Security entitlement is around 60%. The change shown also takes into account the timing and opportunity of other sources of water, such as supplementary water. Due to the nature of the proposed drought account, the impact is more apparent on storage volumes and the allocation process during medium to wet years as discussed in the following sections.

Table 1 Annual Namoi usage and other water balance components (1895 – 2009)

Category	Base (PBP-D050)	Scenario (D094)	Scenario – Base (%)
Entitlements or Use Type	Long term average usage (GL/y)		
General Security (incl HEW)	151.0	148.0	-2.0
Supplementary Access	59.6	59.7	0.1
Utilities, Domestic & Stock	3.4	3.4	0.1
Total usage	231.4	229.7	-1.2
Flow at Bugilbone	538.2	539.0	0.1

3.2. Dam behaviour

The drought reserve is to be kept in Keepit Dam. Under the current set up, less bulk transfers from Split Rock are occurring because Keepit dam is held higher. As a result, spill volume from Split Rock increases by about 9%. In years when spill occurs from Keepit Dam, it is shown that the spill volumes are larger because the dam is kept fuller (Figure 3.1).

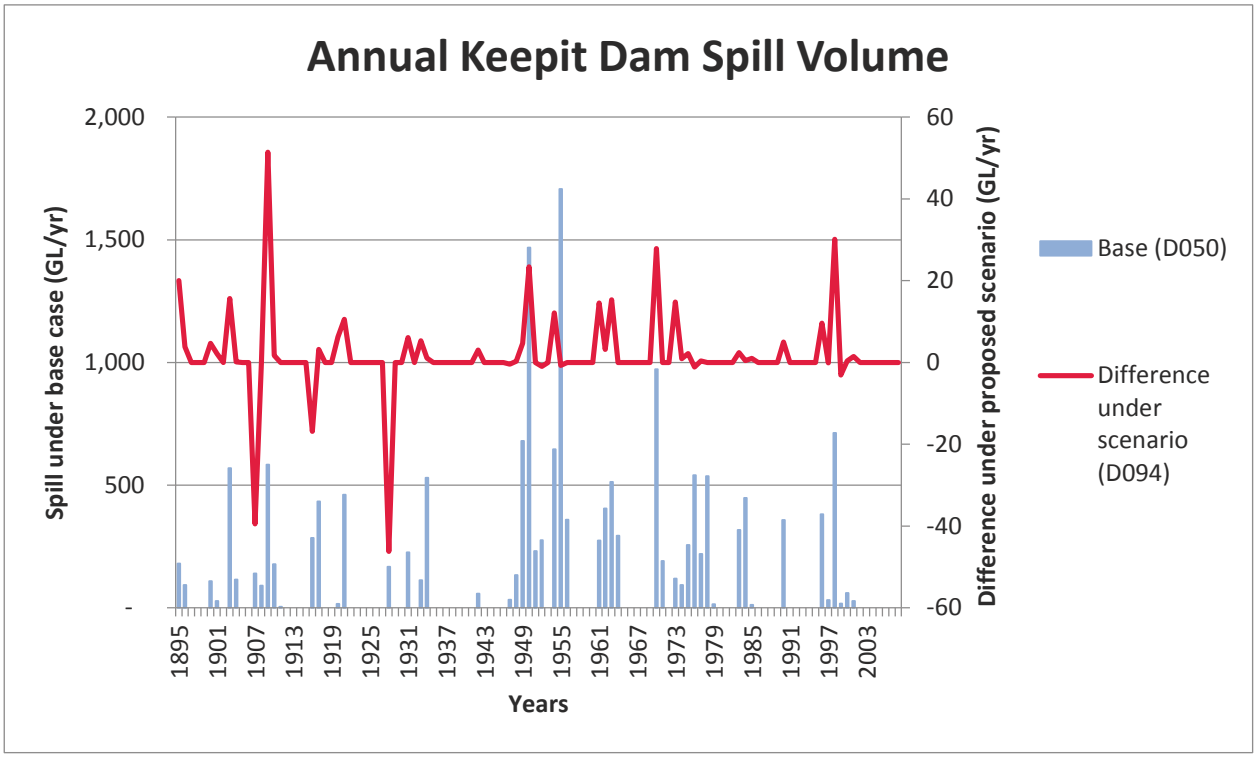

Figure 3.1 Annual total of Keepit Dam spill volume.

Since the Lower Namoi is also able to utilise excess water in Split Rock Dam, there are uncertainties around how bulk transfer will be operated by WaterNSW, given the proposed additional reserve. Therefore it is more appropriate to look at the total volume of Split Rock and Keepit to evaluate the impact. This is also consistent with the Resource Assessment process that looks at available resource in both dams.

Figure 3.2 part A shows that during dry periods, there is more water kept in the dam, consistent with the provision of drought reserve. Furthermore, part B shows that the dam volume is almost always higher under the proposed scenario. This higher volume does not necessarily mean higher allocation for General Security water users, as the additional water is kept as a drought reserve which has a higher priority over General Security and is not able to be allocated.

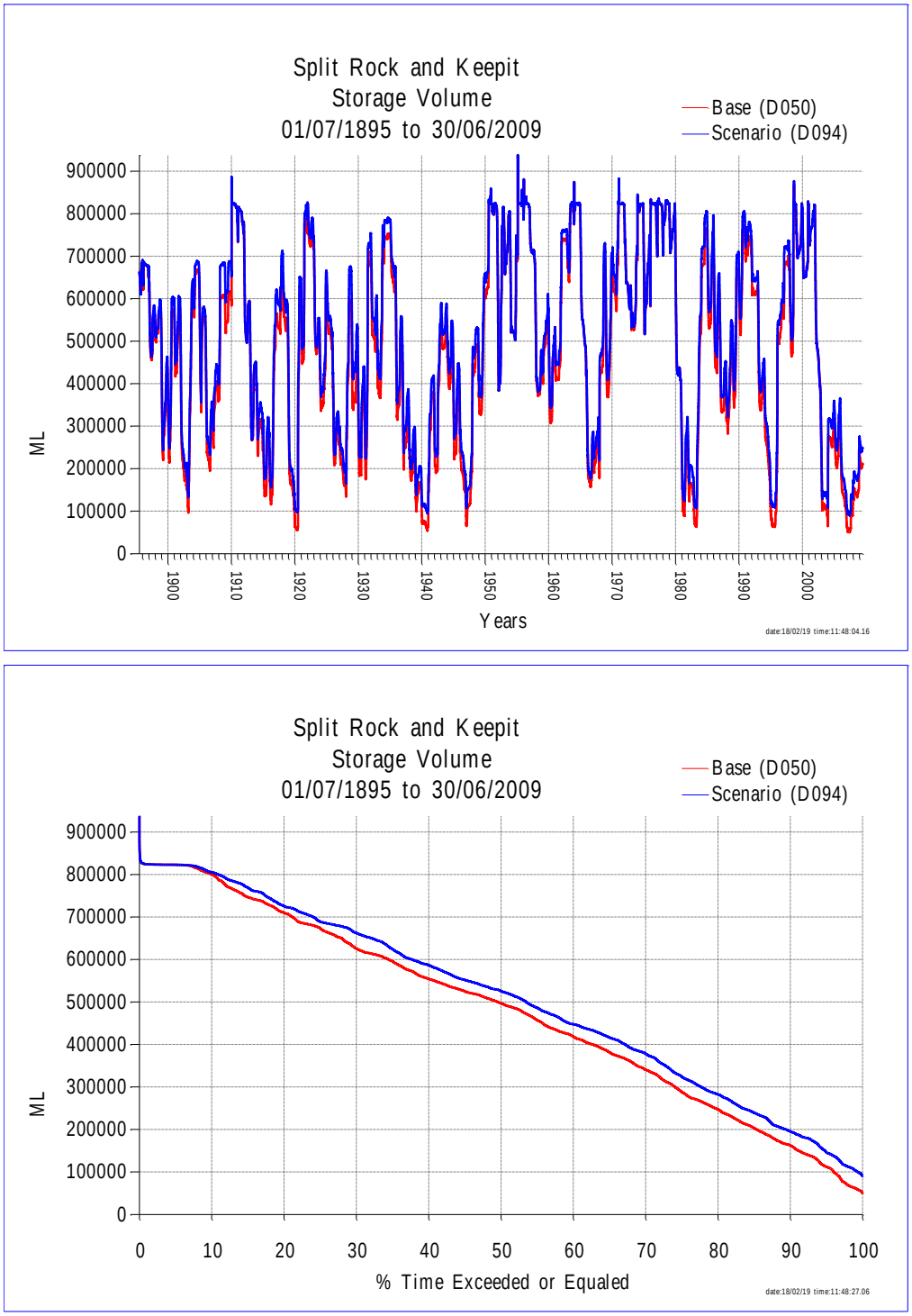

Figure 3.2 Total volume at Split Rock and Keepit. A) Daily time series; B) Frequency curve

3.3. Impact on allocation

Although it is shown that the dams hold more water (Figure 3.2), the higher volume does not necessarily mean higher allocation for General Security water users. This is because the additional water is kept as a drought reserve which has a higher priority over General Security and is not able to be allocated.

Effective allocation is useful to understand impacts on water availability for consumptive purpose. Effective allocation is the total Available Water Determination (AWD) including carry over volumes that is expressed as percentage of total General Security entitlements.

Over the long term, there is a reduction in effective allocation of around 4%. Figure 3.3 shows the General Security effective allocation on 1st October, which isan indication of total regulated water availability at the beginning of the planting season. The red line indicates the difference of the effective allocation under the proposed drought reserve compared to the base case (absolute change). In most years, there is a reduction of effective allocation (below zero line on the secondary vertical axis).

However, in some dry years (such as 1940), there is no change in allocation since there is almost no allocation under the base case. In some years, the seemingly increased allocation is because of higher carry over from previous years.

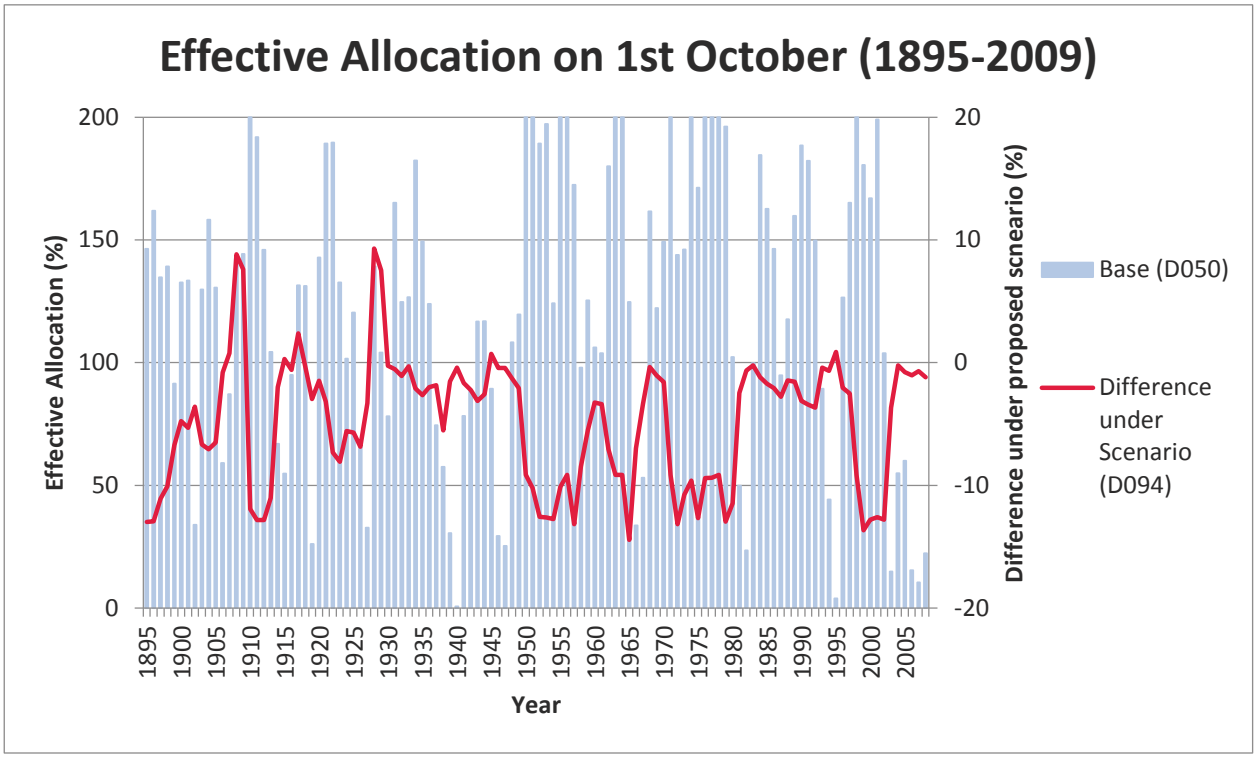

Figure 3.3 Effective allocation (Available Water Determination + Carry Over) on 1st October in 1895 - 2009. Note: the vertical axis on the right is the absoulte difference which has a unit in percentage.

Figure 3.4 shows that the change in effective allocation is most apparent during the medium to wet years. During very wet years, effective allocation is reduced by around 12% because all available water in the Namoi has been allocated under the base case. Therefore General Security accounts cannot have full 200% effective allocation anymore. This is consistent with the 42.5 GL volume of drought reserve being proposed, which is excluded from available resource to serve around 250 GL of General Security entitlement in the Namoi (after taking into account around 12 GL of transmission and operating loss).

Additionally, one of the biggest impacts will also occur at the time of implementing the rule, where 42.5 GL of available water would need to be set aside for the reserve.

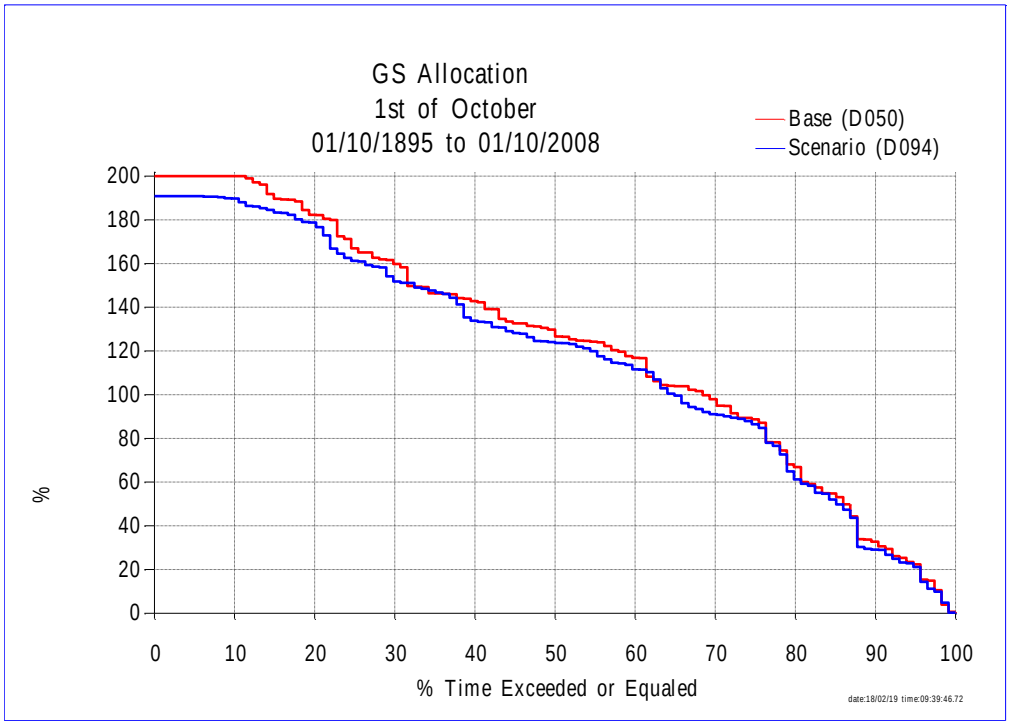

Figure 3.4 Ranked plot of effective allocation (Available Water Determination + Carry Over) on 1st October in 1895 - 2009.

3.4. Impact on flows

Table 2 shows that there is generally a slight increase on daily flows at key locations (biggest increase at Bugilbone maximum flow), except for a very slight decrease of 75th percentile of daily flows at Goangra. This is because spills occur more often, hence increasing some high flows in wet years.

Table 2 Daily flow distribution in the Lower Namoi (1895 – 2009)

Site	Flow Distribution	Base (D067) [ML/d]	Scenario (D094) [ML/d]
Namoi River at Bugilbone (419021)	***Average***	1,473.7	1,475.6
	25th Percentile	68.5	68.6
	50th Percentile	212.0	214.1
	75th Percentile	758.3	758.4
	Maximum	138,510.0	139,150.0
Namoi River at Goangra (419026)	***Average***	1,498.4	1,500.2
	25th Percentile	38.3	38.3
	50th Percentile	185.4	186.8
	75th Percentile	800.3	797.8
	Maximum	110,680.0	110,680.0
Pian Creek at Waminda (419049)	***Average***	123.8	123.9
	25th Percentile	0.0	0.0
	50th Percentile	8.4	8.4
	75th Percentile	55.3	55.5
	Maximum	31,607.0	31,607.0

4. Conclusion

This document summarises the impact of having an additional drought reserve in Keepit dam. The reserve volume proposed is 10% of Keepit Dam's capacity, which is around 42.5 GL. This effectively increases inactive storage in the dam. Therefore, there is less water being allocated for General Security water users even though there is more water in Keepit Dam.

The long term reduction (Figure 3.3) on effective allocation is around 4%. However, there is a reduction of 12% in wet years. Although there is a notable impact on water availability for consumptive users, the impacts to daily flow distribution at Bugilbone, Goangra and Waminda are relatively minor (Table 2).

Approval

Action	Staff member	Role	Signature	Date
Submitted	Michael Sugiyanto	Senior Modeller		18/03/2019
Review	Linda Holz	Lead Modeller		17/04/2019
Approved	Richard Beecham	Manager Water Modelling		01/05/2019

Published by the Department of Industry.

The Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2020 (the Plan) fails to meet the broader community's needs and expectations. Many people in the Namoi community believe the Plan only meets the requirements of General Security Water Access Licence holders while ignoring the environmental, economic, social, recreational and cultural objectives of the wider community.

This was clearly expressed by all candidates in Tamworth and Barwon electorates at the NSW March election, the elected Member for Tamworth stated 'the system is broken – it's time to hit the Reset button'. Thousands signed a petition to express their dismay at the failure of the Plan as portrayed so graphically by Lake Keepit being drained to 0.3% of capacity. 'Never again' say the overwhelming majority of people of the Namoi valley.

A revised Plan should include:

1 A 10% reserve retained in Lake Keepit
2 A Stakeholder Advisory Panel that truly represents the entire community not just irrigators and government appointees
3 Current up-to-date climate data, including greater acknowledgement of the effect of climate change
4 The inclusion of Monitoring, Evaluation and Reporting (MER) plans for social, economic, cultural objectives as per Part 2 Vision, objectives, strategies and performance indicators, Clause (11)
5 Acknowledgement that a 10% reserve in Lake Keepit would provide an essential resource for firefighting (water scooping) aircraft.

Yours faithfully

Loma Ford

Submission from Kate Boyd on draft Namoi Surface Water Resource Plan

19 November 2019

Introduction and context

Thank you for the opportunity to comment on this large set of documents. I appreciate the amount of work that many professional officers have put into it's preparation. I also appreciate the complexity of issues that have been dealt with both develop and change water access management processes over decades on behalf of our diverse community over many decades and to prepare the current set of proposals – proposing what to change, what to continue and what else to do, and complying with Ministerial requirements. I worked on several aspects of river management through the 1990s and in the early 2000s taking a particular interest in NSW Northern Basin water sources and riverine environments.

While some aspects of water management have improved, I am concerned that, despite the large amount of work undertaken in the intervening period, water access management in this region has resulted in ongoing net decline in ecological conditions that was evident before the current drought which just makes the unfolding disaster more obvious. The Barwon-Darling Water Resource Plan says the risks of there being enough water available for environmental requirements, and risks to ecosystems from poor water quality will be in the "Not-Tolerable" range. It is largely due to too much water being taken out of tributaries in most conditions (or trapped in dams upstream) leaving little for the Barwon, Darling and Lower Darling except after there have been a series of very wet seasons. These rivers suffer an artificial drought long before and after every natural drought. Namoi water sources used to be one of the best contributors to those rivers and water diversions from the Namoi and catchment are now one of the worst contributors to downstream problems. The Basin Plan, the changes to WSPs currently proposed, and other aspects of the WRPs are supposed to significantly improve the health of river systems, including the Barwon, Darling and Lower Darling for the benefit of both people and other species. The changes proposed will not achieve this.

While some improvements, such as 'active management' of some EW will improve connection of rivers and downstream river health, the current proposals in this and other Northern Basin WRPs are inadequate. The timing of flows needs to suit environmental needs. The WRPs imply that timing of environmental water is a minor matter – if long term average volumes extracted are within SDL then the leftovers for the environment, whenever it gets them, will be near enough and good enough. The fish and ecosystems die waiting. The fact that dams have been emptied so ecosystems and people who depend on them have to wait longer is ignored. There is no plan for the Barwon, Darling or Lower Darling to recover.

The Namoi Surface WRP also fails to provide adequate improvements to the health of some streams within the Namoi area. The risk assessment identifies some problem areas, including high risks to river health from poor water quality.

Sorry that focusing on the bigger and cumulative issues means I don't have time to support the various little changes that are good for the environment or neutral for the environment but helpful to people.

End of system flows and 'Supplementary flow' extraction

The end of system flow rule should not be tied to storage levels nor set simply on months of the year, nor chosen on the basis of what is least inconvenient for Namoi irrigators. This rule should instead be very closely related environmental needs and improving connectivity flows to the Barwon-Darling. While it is reasonable that they should be consulted, that the community is being consulted now and good that

there has been scientific study of options, it is disgraceful that options for giving priority to the Barwon Darling and Lower Darling are not on the table. The water concerned is the unregulated inflows to the lower Namoi that were once called 'surplus' before its value for environmental usage was recognised and before irrigators got bigger pumps and storages to enable extraction of more from these flow events (then started arguing that their allocations should be doubled from 6 ML/ha to 6 plus 6 supplementary). This water still has some of its natural flow regime characteristics so is most useful to ecosystems. Irrigators and other human users get priority access to most of the regulated flows. The environment should get priority for these unregulated inflows to "regulated" rivers.

Flows in the Barwon-Darling in ordinary and moderately dry years should be increased, preferably whenever this will increase the frequency or duration of flows that scientists regard as beneficial to the ecosystems or water quality, primarily from flow events that would other wise be 'supplementary water' in the Border Rivers, Namoi, Macquarie (and equivalent flows from Queensland), and by greatly restricting floodplain harvesting until appropriate targets in the Darling and Lower Darling have been met and ensuring they keep being met. For example, the 'fish rule' target from the Northwest Unregulated Flow Plan for flows past Brewarrina, which was originally based on enabling passage over a weir which can now be ascended via the fish ladder at relatively low flows should be replaced by a set of rules to encourage and enable fish passage over every weir on Barwon-Darling – they would be significantly lower than the old Brewarrina target but should apply much more often. The algal suppression rule should apply much more frequently all year round – it was limited to limit impacts on irrigators rather than being set to maximise water quality. Other rules can be derived from scientific research already done and the expert knowledge of the scientists who have worked on the river.

If you can't work with those scientists to produce an appropriate set of rules building on the previous work, then just apply a 90:10 rule all year round. The Barwon-Darling badly needs more summer flows not just or primarily winter flows. The trial of different rules for 4 years reduced flows to the environment for 4 years. This should be paid back by increasing flows for the environment for at least the next 4 years. Given the horrific state of the Darling and its consequent loss of resilience – rebuilding a riparian food chain and populations of fish will take decades so permanent increases in 'end of system' flows are needed.

Either scientifically based rules or a 90:10 all year rule would meet the principles proposed for consideration of options better than the 2 options being considered.

If more of this water flows out into the Barwon Darling it should be "actively managed" all the way to wherever it is naturally used by the environment. Even if some is not actively managed and gets extracted further downstream, at least it will have created environmental and social benefits along the way. Keeping water or social values in the Namoi should not be an objective – that would be like setting an objective of preventing the Darling from getting water. I appreciate that increased economic production in the Namoi from supplementary water use has had social benefits there as well as in cities where a lot of the profits end up, but his has been at the expense of people and ecosystems downstream where the water used to go. This has not proved to be ecologically sustainable development.

It is unacceptable that any proposal to permanently reduce outflows to the Barwon relative to the 2003 and 2012 WSPs are still being considered. These reduce planned environmental water.

Chaffey Dam Environmental Flows

Held or released Environmental Water should be protected by active management all the way to where it is absorbed by the environment. It should not be available for extraction anywhere.

As stated in my previous submission on the active management policy, I support both the proposal and wider use of this policy.

Floodplain harvesting

I support efforts to constrain and manage this under the valley caps on total water diversions. Floodplain harvesting may seem at a local level to make use of excess water but it is a significant risk to downstream ecosystems. The cumulative impacts and risks associated with alternative volumes and timing of harvesting or of constraints on harvesting need thorough assessment before the policy is finalised and detailed in the WRP. In particular, effective deterrents to inappropriate use of existing structures are needed, along with recognition that use of structures should have to wait until distant environments do not need the water, rather than the harvesting being allowed first and the environment having to keep waiting. Circumstances in which floodplain harvesting is acceptable are probably infrequent and localized. The Darling and Lower Darling need high and sustained flows for a long time and should get priority.

Net reduction in actual Environmental Water

The No Net Reduction report ignores climate change. The warming predicted for this region will increase evaporation. The predictions of changes in timing and volume of rainfall and runoff do not indicate sufficient increase in flows to make up for the evaporation. By defining Planned EW as what is left after diverting the SDL, changes in the actual total volume of flow are ignored and the actual amount of EW does not need to be calculated or predicted let alone maintained. This system assumes irrigators shouldn't have to wait for water – it let them empty the dams - but makes the ecosystems wait for a flood that was assumed to be nearly all the water the environment would need, but that flood will be a very long time coming thanks to empty dams and floodplain harvesting works that are to be belatedly licensed.

The report sidesteps the question of what effect the end-of-system options will have by saying no option has been chosen instead of noting the effects of each option relative to the original rule.

The report claims that enabling 50% carryover in the Upper Namoi will reduce forfeiting of allocations but not reduce PEW. It does not explain how the change in use of storages will actually affect reallocation or affect different water users or spillage or water availability for upper vs lower Namoi users in different circumstances. I appreciate that some irrigators prefer to be able to keep water for another season and I am not opposed in principle to this but the implications need to be assessed more closely and if any reduction of actual environmental water is likely the change should not proceed. For example, sometimes some irrigator may be are more inclined to wait a little if access to 'supplementary water' is a possibility rather than ordering water they can save, which may sometimes reduce the amount of 'supplementary flow' reaching environments downstream.

This report ignores the proposal to enable the Minister to let mines keep diverting water via aquifer interference from unregulated streams, and ignores the effects on volumes as well as locations and effectiveness of PEW associated with transfer of licences in different directions such as enabling transfer of high security licences from the main river into tributaries for some purposes.

Transfer of high security licences

The proposal to allow high security licences to be transferred from regulated to unregulated streams is appalling. I appreciate the efforts being made to keep water diversions within the valley SDL but this appears to be intended to allow businesses that can afford to buy up licences, such as mines, to divert more water at times of water scarcity at the expense of the people downstream and other industries. This seems to pit mines against agriculture.

Unregulated Sources WSP

More emphasis is needed on regenerative land management practices that increase the water absorption storage and release capacities of vegetation (particularly pasture), soil and groundwater, so that agricultural ecosystems such as grazing enterprises and whole landscapes are more sustainable – sustainability rather than maximising production in the short term at long term or downstream expense. There were some springs in parts of our landscape that helped sustain flows, but there could be more if the land was more sensitively managed. Water Resource Plans should promote this across catchments since that is where the flows have to come from to make the streams, affecting both quality and quantity of flow regimes.

Much stronger publicity about and compliance enforcement is needed to stop people throughout the catchment using the current drought as an excuse to take an unfair share of the rain that falls on their land at the expense of others downstream. The 10% rule is never spoken of let alone enforced.

Pools and low flows should be properly protected. It is not only crops and stock that need water. The system of protecting pools and low flows has tended to gradually improve. I note there are proposals to further improve this. There should be no slackening of the rules. As climate change bites harder the pools need to last longer so there is no room for making any rules slacker – people just have to live within the rules and give other species a chance to survive as well. Protecting low flows helps species move. People downstream where flows often stop and pools tend to dry down sooner also benefit from occasional small inflows to meet their basic needs.

Clause 47: I note that the access licences to which clause 47's limitations on access to flows do <u>not</u> apply are to be increased so these constraints may be lifted for certain developments that operate under development consents and interfere with aquifers. I object to this change.

I suspect that some mines are most likely to fit the new exclusion provisions. Mines should be subject to the same constraints as all other land uses that affect flows in unregulated streams or aquifers. Mining companies should limit their proposals to avoid interfering with aquifers and to avoid any likelihood of taking water from pools or streams at times of low, very low or nil flow, and Governments should not have approved mines that cannot avoid this. The Government may have seen fit to consent to developments for mining or other purposes and to issue access licences under the water management rules that applied at a particular time despite this involving some potential for aquifer interference. The holder of the consent and access licences should then be required to comply with all conditions of their consent and licences. It is their responsibility to manage their activity so that it does comply. When they find it difficult to comply there should be no way that a Government agency or Minister can let them off the hook. The WSP should not be changed to enable this. It is unfair to all other users of water from the relevant water source including farmers, domestic users and the environment. I oppose this proposal.

Urban water use

For a long time irrigators have focussed on improving the efficiency of their water use with considerable success. I commend them on this. By comparison, urban users have tended to increase their use becoming less efficient soon after new dams are built or enlarged to avoid water restrictions. The WRP should not only constrain total valley use to fit within the SDL. It should discourage inefficient urban use, encourage increased recycling in wet years as well as in droughts (e.g. by urban design not just within households), and ensure that the impacts of any increasing use are born locally not at the expense of distant parts of the Namoi, let alone downstream. Changes in timing and quantity flow due to storage or

supply to for Tamworth, such as by filling or using a new dam or enlargement, should be absorbed in the Peel not felt in the Lower Namoi.

Conclusion

Unfortunately this plan continues the recent tendency, which had once been stayed, to give unfair emphasis to on security for some water users at the expense of others, notably those way down stream. Water quality also needs more priority. Now that climate change is biting, it is alarming that there is no recognition of the need to parallel this with changes in water management priorities let alone steps in a new direction. Current management and some of the proposed changes are not ecologically sustainable and do not 'protect, enhance and restore water sources, their associated ecosystems, ecological processes and biological diversity and their water quality' so the proposed Water Resource Plan is contrary to this object of the NSW Water Management Act.

Please further improve this WR Plan.

Yours faithfully
Kate Boyd

Peel Valley Water Users Association Inc

The only organisation that represents the Irrigation Industry in the Peel Valley
PO Box 952, Tamworth NSW 2340
peelvalleywaterusers@bigpond.com

Submission on the Draft Namoi Water Resource Plan

Prepared in November 2019

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1 Introduction

Peel Valley Water Users Association is a non-aligned, not-for-profit entity representing the interests of about 400 irrigation licence holders in the Peel Valley.

The Peel Valley is a comparatively small valley within Tamworth Regional Council local government area. Production includes but is not limited to irrigated lucerne hay, dairy, and irrigated fodder for livestock and the increasing demands of an equine industry bolstered by the relatively recent construction of a $60 million Australian Equine and Livestock Events Centre.

At the time of preparing this submission, the current drought in this region has been described as being the worst on record. The department must ensure that current conditions do not lead to a plan that fails to service the more favourable conditions for which the Valley is renowned.

Section 2 of this submission highlights a number of issues that are general in nature, while Section 3 highlights a number of issues that are specific to the Peel Valley.

2 General comments

It is acknowledged that a considerable amount of effort has been invested in the development of the Draft Namoi Water Resource Plan.

The following general comments are intended to be a positive contribution to the development of the Plan.

2.1 Limited Consultation

A few members of the Peel Valley Water Users Association participated in the Stakeholder Advisory Panel process. However, the level of detail in the draft Water Resource Plan far exceeds the details that were discussed at the Stakeholder Advisory Panel meetings.

2.2 Amount of documentation

The Draft Namoi Water Resource Plan, Schedules, and Appendices total around 1,000 pages. It is unreasonable to expect comment from stakeholders on the contents of the whole Draft Plan, so the comments in this submission are restricted to cover only a few of the major points of concern.

2.3 The Purpose of the Water Resource Plan

Section 1.1 of the Plan states: '*The purpose of the Namoi Surface Water Resource Plan (this Plan or Namoi Surface WRP) is to set out how NSW will meet its obligations under the Murray–Darling Basin Plan 2012 (Basin Plan) in the Namoi Surface Water Resource Plan Area (Namoi Surface WRPA).*'

Therefore, it always needs to be acknowledged that the Water Resource Plan is not designed as a plan to determine how water is shared amongst stakeholders in the valley, which instead remains the function of the Water Sharing Plan, and the Water Sharing Plan has separately been defined as the primary legal instrument for managing water resources in NSW.

3 Comments related specifically to the Peel Valley

3.1 Unsatisfactory process involved in formulating the Water Resource Plan

Some of the process involved with the formulation of the Namoi Water Resource Plan was less than satisfactory. Examples of the unsatisfactory process include the following (please note that this is a comment on the process, not the staff involved):

- Major issues affecting the Peel Valley were ruled as being 'out of scope' at the time comments were invited on the Status and Issues Paper, thus limiting the outcomes from the process for the Peel Valley
- Temporary trading of water from the Peel Valley to the Namoi Valley was removed from the Peel Water Sharing Plan during the formulation of the Namoi Water Resource Plan – without consultation with stakeholders, against the will of Peel Valley stakeholders - and full discussion of the topic was not permitted at the SAP meetings. Peel Valley stakeholders have still never been provided with the details of the 'third party impacts' that were supposed to be so severe that the change to the Peel Water Sharing Plan was urgently required.
- There was limited and insufficient discussion on the segregation of unregulated water, alluvium groundwater, and fractured rock groundwater out of the Peel Water Sharing Plan as a requirement of the Namoi Water Resource Plan.
- One of the original objectives of the Murray Darling Basin Plan was to establish a sustainable diversion limit for each valley in the Basin. The Namoi/Peel Water Resource Plan effectively rolls over the existing Pre-Basin Plan figures for the Peel Valley. The establishment of a Sustainable Diversion Limit for the Peel Valley should have been a core function of the Water Resource Plan process, but that was not the case.
- The original IQQM modelling results in the Peel Valley were discredited at the time that the Peel Water Sharing Plan was developed in 2010, but the completion of the Peel Water Sharing Plan did not allow sufficient time to challenge the results because Government funding would have been lost had the deadline for completion been missed. Apparently the reviewer of the revised calibration of the IQQM model '*concluded the model to be sufficiently robust and unbiased, and recommended it could be used to estimate annual and long term diversions. The model was Cap approved by the Commission as fit for purpose*.' How can that possibly be a transparent and acceptable practice when none of the Peel Valley representatives from the Stakeholder Advisory Panel were either informed about the revised IQQM model being used, or involved in any analysis of the outputs of the revised modelling? To this day, no consultation with representatives from the Peel Valley has taken place on this matter.

3.2 Release of peak environmental flows

In Table 3-1 – 'Strategies to address risks in the Namoi Surface WRPA', Item 9 states: 'Protect the regulated river sections of the WRP area from rapid increases and decreases in flow following releases from Chaffey, Split Rock and Keepit Dams.'

Page ii of the Risks Assessment document Strategy 9 also states 'Protect the regulated river sections of the WRP area from rapid increases and decreases in flow following releases from Chaffey Dam'

This strategy is not being followed currently, with the peak releases of the Environmental Contingency Allowance approaching minor flood levels, often during very dry conditions. For years, stakeholders in the Peel Valley have unsuccessfully pleaded for ECA flows to be released gradually rather than rapid increases to peak flows, to avoid significant damage to the riverbanks.

3.3 Justification for the volume of environmental water in the Peel Valley?

There is a need to scientifically review the justification and the need for 6,257ML of environmental water in the Peel Valley annually. The Peel Valley is an environmentally healthy river system; the Council and the irrigators (combined) use less than 5% of the long term average annual flow so the environment receives 95% of the flow, and the Environmental Contingency Allowance of 5,000ML annually is no longer treated as environmental water once it flows into the Namoi Valley.

3.4 Currently evolving issues that must be considered in this Plan

At the time of writing this submission, there are several issues that must be considered, as they will have impacts on the Plan, and the impacts are unknown at this stage:

- A new Pipeline is being built between Chaffey Dam and Dungowan, which will alter the flow in the Peel River between those locations
- A new 22.5ML (?) Dam will be built upstream from the village of Dungowan, and the impacts of this new dam on the local streams are unknown
- As part of the total cost of constructing the new dam, a new pipeline will be built between the new Dam and Tamworth City, with unknown impacts locally
- There is no knowledge as to whether any form of ECA will be required from the proposed new Dungowan Dam
- As a short term measure, partially treated effluent water will be released into the Peel River from the Tamworth Regional council effluent works. No scientific knowledge of the short/medium/long term impacts of this decision is available
- As a short term emergency drought measure, flows in the Peel River will be blocked by a temporary weir at Dungowan, causing the cessation of flows in the Peel River downstream from that point. There is currently no knowledge about what impacts the above will have on the environment

4 Conclusion

- To date, the people of Australia have invested thirteen thousand million dollars in the creation of the Murray Darling Basin Plan. Australia is the driest continent on earth, and has developed the Murray Darling Basin Plan with the principal outcome being sending more water out to sea in South Australia.

  Other than adding another layer of complexity to an already complex water topic, it is not clear what significant or beneficial improvement the Water Resource Plan for the Peel and Namoi Valleys actually contributes for the Peel Valley area

- There is an underlying conflict between the Water Sharing Plans, the Water Resource Plans, and the Long Term Water Plans. Although the current policy states that the Water Sharing Plan is the primary legal instrument for managing water resources in NSW, the risk remains that any one of the Plans may be used as a basis for making rules in future regarding the allocation and sharing of water. The potential for confusion and conflict as a result of having three similar but separate Plans covering exactly the same water is significant.

Woolcott Group Pty Ltd

ACN 114 558 351

[redacted]

6th November 2019

NSW Department of Planning Industry and Environment

By email [redacted]
mailto:namoi.sw.wrp@dpi.nsw.gov.au

[redacted]

Dear Sir/Madam,

Re: Proposed changes to Water Sharing Plan Rules

Trade between regulated and unregulated water sources. (Part 10 Minister note)

The changes consider allowing the conversion of regulated river entitlements (high security) from a downstream connected regulated river sources to be allowed to be transferred upstream to an unregulated river water source is insanity. To make the statement that the idea is to somehow to encourage open trade as long as it complies with the water trading rules is conclusive evidence that this idea has been concocted by a special interest group, to have it a guess it's someone like the chicken, cattle feedlot or mining industry.

The whole idea of allowing high security water entitlements into an unregulated water source is completely without comprehension or foundation at any logical level. High security means;- **ranking above all others, priority, first , without exception, to the exclusion of all.**

How is an entitlement going to be given priority in an unregulated system without changes to the basic fundamentals of extraction rules required in an unregulated river system environment?

Would somebody explain how a High Security Entitlement will operate in an Unregulated System?

a. Does this mean the High Security Licence Holders will be able to pump when all other General Access Licences have ceased to pump triggers?

b. Does it mean that the High Security Licence Holders will be exempt and ignore the cease pump triggers imposed in that system?

c. Does it mean to reach high security extraction requirements they will be able to pump low flows, along with the remaining inner river pools?

d. Will it mean that High Security Licence Holders will be exempt from visual flow (say over a weir or a structure) cease to pump rules?

e. Will it mean that the river system can be pumped flat to meet the High Security Licence Holders requirements to the detriment of the river health and all other access licence holders?

f. Will it mean that General Security Access Licence Holders in the same system will have further conditions restrictions placed on their licences that assist with the delivery to the high security water user?

g. Will it mean that the river system will forgo environmental flow to meet with the requirements High Security Water User?

h. Will it mean that a river system with a set flow trigger of say 26 megalitres per day will be set aside to meet with the requirements High Security Water User?

As there are no dams on an unregulated system how is the High Security Entitlement Holder going to plan their water requirements if they are competing for water on the same terms as a General Access Holders conditions. The answer is they can't hence why all of our points (a to h) are relevant and why the thought bubble of considering allowing High Security Entitlements in to an unregulated system should be quickly ditched and buried as a ludicrous and ridiculous idea.

As a substantial unregulated water user any plan to allow this type of transfer would severely affect our farms viability therefore we wish to go on the record that, if this part of the Plan was to be implemented, we would be seeking considerable compensation from the State of NSW and the Commonwealth, if involved !

Your return correspondence addressing our concerns would be greatly appreciated

Yours faithfully
Woolcott Group Pty Ltd
[redacted]

Email address	[redacted]
Name of respondent	[redacted]
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Organisation
Organisation or Business Details	
Name of Organisation	[redacted]
Who are you representing?	[redacted]
Government Organisations	
What level of government organisation are you?	[redacted]
Proposed changes to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016	
Do you have comments on the supplementary flow sharing alternative options presented in the Supplementary Flow Sharing Rule – Options Paper?	No
Do you have any comments on the proposed change to increase the maximum volume of water that may be held in a water allocation account in the Upper Namoi at any time be	No

increased to 1.5 ML per unit of share component specified on the respective access licence?	
Do you have any comments on the proposed change to restrict water trading from Lower Namoi to Upper Namoi due to different reliability of these sources?	No
Do you have any comments on the proposed amendments to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016?	Yes - see submission
Proposed changes the Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010	
Do you have any comments on the proposal to establish standardised EWAG's (Environmental Water Advisory Groups) in the Peel Regulated River?	No
Do you have any comments on the proposed amendments to repeal temporary water trading provisions that allow water trading from Peel Regulated Water Source to Lower Namoi Water	No

Source?	
Do you have any comments on the proposed change in the conversion factor to be consistent with transmission losses, and maintain compliance with Murray Darling Basin Plan?	No
Do you have any comments on the proposed amendments to the Water Sharing Plan for the Peel Regulated River Water Source 2020?	Yes - see submission
Proposed changes to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012	
Do you have any comments on the proposed change to allow limited water trading between the unregulated water sources within the Namoi and Peel WSP area where third party and environmental impacts can be quantified and deemed acceptable?	Do not support
Do you have any comments on the proposal to change the Cockburn cease to pump reference from gauge height to volume and the location of the reference site be	Support

moved to 50 m downstream side of the existing location?	
Do you have any comments on the changes proposed to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012?	Yes - see submission
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about the opportunity to make a submission?	Department of Industry website
Additional Information	
Please tick the relevant boxes	I consent to my “submission” being published on the department’s website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in the submission will be published.

REGIONAL COUNCIL
Tamworth

ABN: 52 631 074 450

More than just a city. More than just one place.

NSW Department of Planning, Industry and
Environment
P O Box A985
SOUTH SYDNEY NSW 1235

Dear Sir

SUBMISSION ON THE NAMOI SURFACE WATER RESOURCE PLAN AND THE WATER SHARING PLAN FOR THE UPPER AND LOWER NAMOI REGULATED RIVER SOURCE 2020 AND WATER SHARING PLAN FOR THE PEEL REGULATED RIVER SOURCE 2020

Ref: BL/SF514

On behalf of Tamworth Regional Council thank you for the opportunity to provide comments as on the new Surface Water Resource Plan and associated Water Sharing Plans.

Council's submission follows.

Please contact the undersigned should you wish to discuss this matter further.

Yours faithfully

[redacted]

15 November 2019

REGIONAL COUNCIL
Tamworth

Tamworth Regional Council

Submission to the NSW Department of Planning Industry and Environment on the Namoi Surface Water Resource Plan and the Water Sharing Plan for the Upper and Lower Namoi Regulated River Source 2020 and Water Sharing Plan for the Peel Regulated River Source 2020

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Background

Tamworth Regional Council holds

- a 16,400 Megalitre local water utility license in the Peel Regulated River for bulk raw water delivered from Water NSW's Chaffey Dam to supply the City of Tamworth
- 679 Megalitres of general security in the Peel Regulated River
- a 5,600 Megalitre local water utility license for bulk raw water from Council's Dungowan Dam in the Peel Unregulated
- 660 Megalitres of local water utility licenses for water from the Peel Alluvium
- 1,014 Megalitres of general security licenses in the Peel Alluvium
- 100 Megalitres of local water utility licenses in Peel Fractured Rock
- 429 Megalitres of general security in Peel Fractured Rock

Given the volume, number and variety of sources of water licenses Council holds, Tamworth Regional Council has a significant interest in the Namoi Surface Water Resource Plan (WRP) and the associated Water Sharing Plans (WSP) for the Peel and Upper and Lower Namoi. Given this Council would like to comment on a number of issues as detailed below;

NSW Natural Resource Commission is reviewing the old WSP's

At its meeting of 10 September 2019 Council considered a report advising the NSW Natural Resource Commission has a statutory role under Section 43A of the Water Management Act 2000, to undertake independent reviews of water sharing plans approaching expiry and report its findings to the NSW Minister for Water. These reviews help to identify opportunities to improve water sharing provisions and associated outcomes. The Minister considers the Commission's report before deciding to extend or make a new water sharing plan.

Council did make a submission to the Commission's review, however it is unclear how the Commission's review of the old WSP's and the NSW DPIE (Water) current review and release of a new WSP's work together – for instance;

- if a provision in the Water Sharing Plan is reviewed by the Natural Resource Commission and the Commission recommends amendment, but that amendment is not supported, by the Namoi Water Resource Plan, what happens then; and
- likewise if the WRP signifies a change in WSP that is not recommended by the Commission, what happens then.

Confusion in relation to the process to be followed

The Director Water and Waste for Tamworth Regional Council participated in the Stakeholder Advisory Panel (SAP) process, and believed the Namoi Surface Water Resource Plan would be placed on public display first, and once the WRP was finalised, the Water Sharing Plans for the Upper and Lower Namoi and Peel Regulated River Sources would be drafted and placed on public display for public comment. This is not the case, the WRP and the relevant WSP's have been placed on public exhibition together and once the public exhibition period ends it will be up to the NSW Water Minister to adopt the various Plans. Given the minor changes that are proposed then perhaps this is not a major issue but it does add to the level of disillusionment associated with the process.

Why complete the review now

The North West of NSW is experiencing the worst drought on record. The rules as set down in the current Water Sharing Plans have been followed and town water supplies, irrigators and other

customers now find themselves in the current situation, including a real threat to the continued provision of water for local town water supplies.

The proposed minor changes to both WSP's will essentially see the rules as per the old WSP's brought forward into the new WSP's. How the Government and Agencies expect a different outcome in the future, if the same or worse conditions occur, when the same rules are being applied, is not clear.

This point was raised at the public meeting in Tamworth on 23 October 2019 and further, it was suggested the government postpone the review of the WSP's until after the current drought has broken, so that lessons learned can be considered and, where necessary, incorporated in the new Plans. Whilst it was conceded by representatives of the NSW Government at the meeting that the new Dungowan Dam, funding for which was recently announced, would require changes to the Peel WSP, it was noted the relevant NSW Minister could make changes to the WSP at any time and the review and making of a new Plan would continue.

Given the number of changes that have been made to the existing plan over it s10 year life, despite repeated calls, by various parties, for change, the chances of the Minister making changes to the new plan are considered remote at best.

Further, during the current drought Tamworth and Moonbi Kootingal are fortunate that there are capital works that can be undertaken quickly, and that the NSW Government has funded, to improve the reliability and security of the Chaffey Dam supply. It is considered similar capital works will not be so easily identified, if a similar drought occurs in the future, so changes to the way water is shared is considered the most appropriate way to prevent similar situations from reoccurring in the future.

Adopting the same WSP's that have got us into this situation for the next 10 years, with little change, would seem totally indefensible.

The Peel WSP should be changed to provide Local Water Utilities with 100% of their allocation in year 1 and 100% allocation in year two

Council has considered a number of reports on this matter previously, before resolving to write the then NSW Water Minister, Niall Blair **ATTACHED**, refer **ANNEXURE 2**, seeking a change to the Peel Water Sharing Plan that would see Local Water Utilities receive 100% of their allocation in Year 1 and 100% in year two. Minister Blair replied, **ATTACHED**, refer **ANNEXURE 3**, to Council advising the NSW Government would not support such a change.

The current drought highlights the need to provide more water security for the City of Tamworth and Moonbi/Kootingal. It is considered the points raised in the letter to the Minister remain valid and the reasons given in the Minister's reply can be questioned given the position Tamworth finds itself in in relation to water security.

Losses are not adequately considered in the current Peel WSP

If the permanent pipeline from Chaffey Dam to the existing Dungowan Pipeline is constructed then this issue will no longer be of concern for Council. However, if the pipeline is not constructed then it is considered the WSP does not accurately cater for in stream losses in the Peel River particularly during drought. Councillors have heard many times that, at the present time, for every one Megalitre of water required at the Peel River Intake, two Megalitres must be released from Chaffey Dam – 50% of all water released from Chaffey Dam is lost during in stream travel. It is understood the WSP assumes an allowance of 30% for in stream losses which may be appropriate

for wetter or normal periods but during drought, when water security is at a premium, the WSP should accurately represent losses actually experienced.

The process for determining allocations appears flawed in the current Peel WSP

Prior to the augmentation of Chaffey Dam, when the storage level hit 50% Council introduced Level 1 water restrictions which generally coincided with the time when the general security allocation reduced to 0%. This meant that water from Chaffey Dam was not being released for any other purpose but for Local Water Utility supplies and some high security entitlement holders, when water restrictions were introduced in Tamworth. Essentially then, from this point, the rate of fall of Chaffey Dam was controlled by the level of water restrictions in place in Tamworth and by the public's compliance with those restrictions.

Contrast that to the present drought which saw Council introduce water restrictions in Tamworth and Moonbi Kootingal on 14 January 2019, with the augmented dam at 38% (Council offices were closed for Christmas when the dam passed 40%, the trigger for level 1 restrictions). At that time general security allocation was 38% where it remained for the remainder of the water year. On 1 July 2019, the storage at Chaffey had reached 23.11% and general security allocation went to 0%. The allocation for general security entitlement holders meant the introduction and escalation of water restrictions by Council, despite good compliance by the community, did not have a significant impact on the rate of fall of the dam storage because the bulk of the water released during this period was for irrigation requirements.

The process for determining allocations under the Peel WSP needs to be reviewed in light of the present drought to ensure the City of Tamworth and Moonbi Kootingal are not on water restrictions during periods when the city is not the main consumer of water from the Dam.

The current Peel WSP does not provide adequate security for the City of Tamworth and Moonbi/ Kootingal

The current drought in this part of the state is officially the worst on record. The urban centres reliant on water from Chaffey Dam are now on Level 5 restrictions, the highest level possible under Council's Drought Management Plan, with very real concerns supplies may continue to fall.

Provision of water for local water utilities is fourth highest priority of the plan, behind only water for the environment, water for domestic and stock rights, and water for native title rights. Given this priority it could be argued the current plan has not achieved its objectives and security of supply for Local Water Utilities needs to be reviewed and provisions strengthened.

Treatment for water held in storage for losses after Chaffey Pipeline is constructed is a critical consideration

The current Peel WSP includes provision for storing water in Chaffey Dam to address water losses associated with the holding and delivery of water to meet license holder requirements. How much water is stored in Chaffey Dam to mitigate against losses is unknown, but considering Water NSW believes in 2018-19 over 17,000 Megalitres of water was lost instream, the volume of water stored in the dam to offset losses may be considerable.

Should the Chaffey Dam pipeline be constructed then one of the main contributors to this high volume of water stored in the dam, the allowance for losses associated with the delivery of water for Tamworth's requirements will be significantly reduced. How the water presently stored in the dam for losses but no longer required, is dealt with will have serious consequences for the water security of Tamworth. For example, if, as a result of the pipeline, water stored for losses is set

aside in the assessment and not allocated, the security of Tamworth's supply will increase; however, if the volume is allowed to form part of the resource to be allocated, it will improve water availability and productivity for general security license holders, but not improve water security for Tamworth.

It would seem ludicrous for the NSW Government to spend an estimated $40 Million on a pipeline to secure Tamworth's water supply only for the Water Sharing Plan to then erode that security by allocating water previously held for losses to other uses.

How this water is treated in the future will be included in the Water Sharing Plan and therefore the review of the Peel WSP needs to consider this issue.

Upper and Lower Namoi WSP – Treatment of Water for Manilla

As reported to Council meeting of 22 October 2019 there is real concerns that water presently stored in Split Rock Dam may be released to satisfy general security irrigation requirements. If this proposal proceeds then Split Rock Dam may be at dead storage levels by April 2020 and Manilla, which relies on releases from Split Rock for town water, will be effectively out of water. The proposed releases are in accord with provisions set down in the current WSP. Obviously then, it is considered the current WSP should be amended to prevent the release of water from Split Rock dam where those releases will see an end to the supply of water for Manilla.

Attachment 1

REGIONAL COUNCIL
Tamworth

ABN: 52 631 074 450

More than just a city. More than just one place.

The Hon Niall Blair MLC
Minister for Primary Industries, Regional Water &
Trade and Industry
GPO Box 5341
SYDNEY NSW 2001

Dear Minister

PROPOSED CHANGES TO PEEL WATER SHARING PLAN TO IMPROVE SECURITY OF TAMWORTH'S WATER SUPPLY

Ref: BL/SF514

You would be aware the preparation of a Surface Water Resource Plan for the Namoi and Peel Valleys in the State's North West is presently underway. The Namoi & Peel Surface Water Resource Plan sits above and informs the Peel Water Sharing Plan which will be reviewed and updated following completion of the Water Resource Plan. As part of the Resource Plan process Council has been considering whether it is appropriate to seek changes to the Namoi & Peel Surface Water Resource Plan and subsequent Peel Water Sharing Plan to improve the security of Tamworth City's water supply and in so doing assist in justifying the significant and, it seems ever increasing, costs Council pays for water made available from Chaffey Dam.

Further detail to this issue is provided in the attached 2 Council reports however the following summary is provided;

- Council has a Local Water Utility Entitlement in Chaffey Dam of 16,400 Megalitres (ML's)
- The current Peel Water Sharing Plan (WSP) says at Cl 48
  - Local Water Utility (LWU) license holders – 70% Annual Water Determination (AWD) at start of the water year
  - Sufficient volumes of water shall be set aside in Chaffey Dam so that 70% of LWU entitlements can be maintained through a repeat of the worst inflows on record
- So at the start of the water year
  - Any volume stored in the dam greater than 16,400 * 0.7 = 11,480 ML's is made available to other users via an AWD
- By applying this clause more water is available for other users in the Peel Valley
- However Tamworth restrictions are applied based on the volume of water in Chaffey
  - If Council's full entitlement was set aside the introduction of restrictions would be delayed
- If Council's full entitlement was set aside the security of Tamworth's water supply would be enhanced

- Further, during a drought transmission losses from the dam to Council's intake point can be as high as 100%
  - That is for every 1 ML of water at the intake point 2 ML's have to be released
  - So only 50% of the water stored in the dam is actually available at that time.
  - If Council's full entitlement was stored, 8,200 ML's would be available
  - At 70% - 5,740 ML's is available
- Recognising their may be adverse effects to other license holders in the Peel if Council's full entitlement was stored, Council requested NSW Department of Industry (DOI) Water to model the effect of the change on reliability. This modelling indicated;
  - Increase in minimum storage reserve from 21.5 to 24.5 GL
  - 8% increase in reliability for Tamworth
  - 10% reduction in reliability for General Security
  - Instead of 89% chance of 100% AWD on 1 January would move to 79% for General Security
- Council is the only entitlement/license holder from Chaffey Dam which contributed directly to the cost of the initial construction of Chaffey Dam and the recently completed augmentation;
  - Council contributed ¼ of the cost of Chaffey Dam construction (State Govt. provided ½ of Council's contribution)
  - Council contributed $4.76 Million to the augmentation to improve reliability of supply
- These contributions to the capital cost of the Dam have never been recognised through lower charges for water supplied and, in fact, following the most recent review of Water NSW charges in the Peel, IPART imposed a new pricing regime on Council (despite Council's formal objection) which now sees Council pay approximately $680,000 per annum to Water NSW in fixed/annual charges whether Council accesses any water from Chaffey Dam or not.
- These charges are by far and away the highest paid by any NSW Local Water Utility in the Murray Darling Basin.

Tamworth City is growing and water security and reliability is absolutely essential for this growth to continue. In addition, Council must consider just why did Council contribute to the cost of building the dam initially and the augmentation, and pay the ongoing exorbitant charges associated with accessing water from the Dam, if not to ensure maximum reliability and security for water from the City's primary water source.

For these reasons Council considered 2 reports on this matter – the first at its meeting of 12 June 2018 and subsequently at its meeting of 24 July 2018. See copies of both reports and Council resolutions attached. Following consideration of the second report Council resolved as follows;

> *That in relation to the report "Proposal to Pursue a Change in Clause 48 of the Peel Water Sharing Plan changing AWD's for Local Water Utilities from 70% to 100%", Council:*
>
> *(i) formally advise the NSW Department of Industry – Water Council seeks, as part of the current Water Resource Planning process in the Peel/Namoi, to change Clause 48 of the next Peel Water Sharing Plan so that instead of a 70% Available Water Determination for Local Water Utilities this figure is changed to 100%; and*
>
> *(ii) request the Director Water and Waste to advise other stakeholders of Council's decision at the next Namoi/Peel Water Resource Plan Stakeholders Advisory Panel meeting scheduled for 2 August 2018.*

This proposal has been discussed with stakeholders both informally and at a meeting with stakeholders on 4th July 2018. Council sought and received submissions from stakeholders on the

proposal and considered those submissions as part of it deliberations at its meeting of 24 July 2018. The main concerns raised in the submissions, and a comment in relation to each concern is detailed in the 24th July 2018 report.

However in relation to claims by the Peel Valley Water Users Association of significant reduction to the reliability of water for general security license holders, should the proposal proceed, leading to the death of the irrigation industry in the Peel the following point is made.

During deliberations for the Chaffey Dam augmentation the Chaffey Dam Upgrade Community Reference Panel, a panel administered by the NSW Government, set up a subcommittee to prepare a funding discussion paper for the proposed augmentation. The paper was completed in February 2007 and sought to justify the need for the augmentation and how it should be funded. Representatives of all relevant stakeholders, including the Peel Valley Water Users Association, were appointed to the sub committee. The paper found the following;

- *The current reliability of Chaffey Dam determined by modelling over a hundred years of rainfall and river flow data is 59% chance of receiving 80% allocation on 1 July each year will drop to zero within 10 years.*

And

- *4 main beneficiaries for the augmentation were identified by the Subcommittee namely;*
  - *Tamworth Regional Council*
  - *Peel Valley Irrigators*
  - *State Government*
  - *Commonwealth Government*
- *The preferred funding option was as follows;*
  - *Tamworth Regional Council - $2.482 Million*
  - *Peel Valley Irrigators $0.876 Million*
  - *State Government $4.697 Million*
  - *Commonwealth Government $6.545 Million*

The funding option identified by the Subcommittee was the option eventually adopted for funding the augmentation, however the Irrigators where unable to fund the money allocated to them and Council, fearing the augmentation would not proceed, agreed to fund the shortfall as well as its contribution.

Given the most recent modelling of the augmented Chaffey Dam indicates General Security reliability of an 89% chance of received a 100% allocation at 1 January each year, the level of improvement in reliability enjoyed by Irrigators, and paid for by Council, is substantial and Council believes a 10% reduction in this vastly improved reliability can be justified, when considered against the improvements to the reliability of the Tamworth supply and where general security reliability was heading without the augmentation.

Minister, whilst Council has agreed to pursue a proposed change to the Peel Water Sharing Plan and there is a process to be followed in considering this proposal, there will not be consensus amongst the license holders of the Peel River on this issue. The final decision rests with you and as a result, Council seeks your support to ensure this carefully considered and justified proposal, which will increase the security and reliability of Tamworth's water supply, is included in the Namoi and Peel Water Resource Plans subsequent Peel Water Sharing Plan.

Yours faithfully

C J. Murray

Col Murray
Mayor

Contact: Bruce Logan - (02) 6767 5811

6 August 2018

cc: Mr Kevin Anderson MP
Member for Tamworth
PO Box 1740
TAMWORTH NSW 2340

8.3 PROPOSAL TO PURSUE A CHANGE IN CLAUSE 48 OF THE PEEL WATER SHARING PLAN CHANGING AWD'S FOR LOCAL WATER UTILITIES FROM 70% TO 100% – FILE NO SF514

DIRECTORATE: **WATER AND WASTE**
AUTHOR: **Bruce Logan, Director Water and Waste**

Reference: **Item 8.3 to Ordinary Council 12 June 2018 - Minute No 190/18**

1 ANNEXURES ATTACHED
7 CONFIDENTIAL ENCLOSURES ENCLOSED

RECOMMENDATION

That in relation to the report "Proposal to Pursue a Change in Clause 48 of the Peel Water Sharing Plan changing AWD's for Local Water Utilities from 70% to 100%", Council:

(i) formally advise the NSW Department of Industry – Water Council seeks, as part of the current Water Resource Planning process in the Peel/Namoi, to change Clause 48 of the next Peel Water Sharing Plan so that instead of a 70% Available Water Determination for Local Water Utilities this figure is changed to 100%; and

(ii) request the Director Water and Waste to advise other stakeholders of Council's decision at the next Namoi/Peel Water Resource Plan Stakeholders Advisory Panel meeting scheduled for 2 August 2018.

SUMMARY

At its Meeting of 12 June 2018, Council considered a report on, amongst other things, a proposal to improve the security of Tamworth's Water Supply. As a result of the resolution of Council in relation to this matter, a meeting has been held with stakeholders.

The purpose of this report is to seek Council's direction in relation to whether or not this proposal should be pursued.

COMMENTARY

At its Meeting of 12 June 2018, Council considered a report titled "Increased cost of Water from Chaffey Dam and a Proposal to Improve Security of Tamworth's Water Supply, which detailed as of 1 July 2018, new charges will be introduced in the Peel Valley which will see Council pay considerably more in annual charges for water stored in, and sourced from, Chaffey Dam even if the water is not used.

In addition, the Namoi/Peel Water Resource Plan for surface water in the Namoi/Peel Valley is presently being prepared. The Water Resource Plan sits above the Peel Water Sharing Plan (WSP) and informs the WSP. There is an opportunity, as part of the development of this Plan, to endeavour to change one aspect of the current Peel WSP which, if completed, would see an increase in reliability and security of Tamworth's Water Supply. However, general security license holders in the Peel, including those holding entitlements for the environment, have concerns about the proposed change and an associated reduction in reliability and security for general security license holders.

A summary of this issue including background can is **ATTACHED**, refer **ANNEXURE 1**.

Following consideration of the report Council resolved as follows:

That in relation to the report "Increased Cost of Water from Chaffey Dam and a Proposal to Improve Security of Tamworth's Water Supply", Council:

(i) maximise the volume of water sourced from Chaffey Dam in the future and hold the Dungowan Dam supply in reserve for use only when operational or emergency reasons dictate;

(ii) request the Director Water and Waste investigate ways to minimise outflow from Dungowan Dam around the automatic tipping gate to maximise the volume of water stored; and

(iii) agree to discussions with stakeholders, including the Peel Valley Water Users, NSW Office of Environment and Heritage and the Commonwealth Environmental Water Holder before formally deciding whether to further pursue the proposal seeking changes in the Namoi/Peel Water Resource Plan and the associated Peel Water Sharing Plan altering the available water determination at the start of the water year for Local Water Utility Licenses to 100%.

In accordance with the resolution, a meeting was held on 4 July 2018, with stakeholders to further discuss this proposal. The meeting was attended by:

- The Mayor, Councillor Col Murray and Councillors Rodda, Maxwell and Webb;
- The General Manager of Council and relevant staff;
- Federal Member for New England the Hon. Barnaby Joyce MP on the invitation of the Peel Valley Water Users Association;
- representatives from the Peel Valley Water Users Association;
- individual irrigators in the Peel;
- representatives of the NSW Department of Industry – Water;
- representatives of the NSW Office of Environment and Heritage; and
- representatives of the Commonwealth Environmental Water Office.

At the conclusion of the meeting, representatives were asked to provide a written submission in relation to this matter so that concerns could be recorded and provided to Councillors during further consideration of this issue, which was schedule for the Council Meeting of 24 July 2018. Attendees were also advised to meet reporting deadlines any submission would have to be provided by the close of business Monday, 16 July 2018, to ensure inclusion.

Submissions have been received from:

- The Commonwealth Environmental Water Office (CEWO);
- Mr David Gowing;
- NSW Office of Environment and Heritage (OEH); and
- Peel Valley Water Users Association (PVWUA).

Copies of the submissions are **ENCLOSED**, refer **CONFIDENTIAL ENCLOSURES 1, 2, 3, 4, 5, 6,** and **7.**

Points raised in one or more of the submissions and a staff comment is provided below:

- The CEWO has raised concerns the proposal would reduce environmental outcome in the Peel and that the proposal would not seem to be consistent with Water Resource Planning accreditation requirements for no net reduction in planned environmental water.

  Staff comment: Modelling indicates there will be a 10% reduction in general security which includes both the Environmental Contingency Allowance held by the NSW Office of Environment and Heritage and entitlements held by CEWO for environmental purposes. Prior to the augmentation of Chaffey Dam the WSP included a stimulus flow of 1,600 Megalitres each water year. This

stimulus flow was considered an environmental release. After the augmentation of Chaffey Dam, an Environmental Contingency Allowance of 5,000 Megalitres was included in the WSP.

As a result it could be argued the environment benefited from the augmentation of Chaffey Dam.

During the most recent environmental release a total of 6,257 Megalitres (5,000 ML's from ECA and 1,257 ML's from CEWO) was available for the environment. However, desired environmental outcomes were achieved by only releasing 3,870 Megalitres (2,613 ML's from ECA and 1,257 from CEWO). If satisfactory environmental outcomes can be achieved by using 62% of the total available, a reduction in reliability of 10% will be insignificant.

- The CEWO has raised concerns about a reduction in the value of the Commonwealth's general security holdings in the Peel and suggested options like those considered by Council at its Meeting of 12 June 2018, should be explored further.
  Staff comment: Reduced reliability may reduce the value of any regulated river license, however, given the increase in reliability provided by the augmentation of Chaffey Dam the value of the licenses held by CEWO should be showing a nett increase.
  In relation to the other options considered Council, for a variety of reasons, elected not to pursue these options further.

- The NSW Office and Environment and Heritage have suggested a further option for consideration by Council.

  Surrender 30% of Council's entitlement of 16,400 or 4,920 ML and amend the WSP to give 100% AWD on the remaining 11,480 ML.

  This provides the same annual volume of water. But reduces water charges as fixed charges should reduce by 30% (as a result of the reduction in licenced volume) while usage charges should remain the same (compared to not doing anything and the fee structure changing).

  This would allow Council to retain access but reduce costs; it wouldn't impact on other water users (as long as the volume surrendered is retired and not re-allocated to other users); Council can use all their entitlement and are only billed for what is accessible. Council would retain the option to apply for an increase in entitlement to cater for population increases in the future.

  Staff comment: It is considered Council must decide what the main priority is in relation to this issue – costs or additional water security. If cost is the main priority then adopting the OEH suggestion may be beneficial, although it still requires changes to the WSP, which may or may not be successful. If however, additional security and reliability of supply to Tamworth is Council's main priority then the option suggested by OEH does not improve the security and reliability of the Tamworth supply – it remains unchanged.

The PVWUA in their submissions make a number of points as detailed below:

- No need to change – Council doesn't use all of its entitlement now.

  Staff comment: This is correct but if Council is endeavouring to reduce the number of occasions Tamworth is under water restrictions then Council should maximise the amount of water available in the dam for Council's use, whether used or not.

- Minister can suspend the water sharing plan.

Staff Comment: Suspension of the WSP, or parts of the WSP by the responsible NSW Minister would only be considered when allocation for general security surface water license holders was already at 0%. Suspension of the plan or parts thereof may have some positive effect on water available for Council if the significant losses in the Peel could be reduced, which may be achieved by reducing access to groundwater which never falls below 51% whilst the WSP is in place. However, it is worth noting Council has previously written to the relevant NSW Minister requesting the WSP be suspended when Level 4 restrictions are imposed, however, the Minister did not agree.

- Increased charges for Council. The PVWUA points out that under the formula used to calculate high security charges, during the most recent IPART review, Council may have to pay more in annual charges as the reliability of the water increases. PVWUA calculations suggest annual charges would increase by approximately $52,000.

  Staff comment: Staff contacted IPART to discuss this issue and IPART's advice is provided below:

  We understand you are seeking advice on whether the Tamworth Regional Council's (TRC) draft proposal to increase its starting allocation under the Peel Water Sharing Plan (WSP) from 70% to 100% would affect the calculation of the High Security Premium (HSP) as set out in IPART's 2017 WaterNSW Rural Price Review.

  The following response is based on:

  - *IPART's 2017 HSP Methodology which we used to set prices for the 2017 Determination Period (four years from 2017-18 to 2020-21);*
  - *the information we used to calculate the HSP during the 2017 price review; and*
  - *information provided to us by TRC on the draft proposal to change the Peel WSP and the potential impact this could have on reliability.*

  We note that, as with other elements of IPART's pricing methodology, IPART's HSP Methodology and the information used to calculate the HSP are subject to review and potential change at the next WaterNSW Rural Price Review (2020-21). ***Therefore, our response to your enquiry is limited to how the TRC's draft proposal to change the Peel WSP could impact the 2017 HSP based on a) IPART's 2017 HSP Methodology; and b) the information we used to calculate the HSP during the 2017 price review. For clarity, our response is not intended to indicate what the HSP will be for the next Determination Period (ie, prices from 2021-22), as this will depend on a range of factors that we will consider at the next WaterNSW rural bulk water price review in 2020-21.***

  Background

  The 2017 HSP Methodology calculated the HSP as the product of two variables (see pages 122 – 129 of IPART's 2017 WaterNSW Rural Bulk Water Price Review - Final Report):

  - ***Security Factor [General Security Entitlements/(LTAAEL – High Security Entitlements)]***
  - ***Reliability Ratio = [20-year average of actual High Security allocations/20-year average of actual General Security allocations]***

Where the LTAAEL is the Long-Term Average Annual Extraction Limit.

For Peel Valley, the HSP was calculated as follows:

HSP = [30,335 / (15,100 – 17,373 + 6,910)] x [98% / 62%] = 6.54 x 1.58 = 10.35

(We note that for Peel Valley, the Security Factor was adjusted for 6,910 inactive high security entitlements. This maintained the approach IPART adopted at the 2006 Determination, given that Peel Valley has a substantial number of inactive High Security Entitlements.)

Potential impact on 2017 Security Factor

The number of active High Security Entitlements used to calculate the 2017 Security Factor (ie, Total (17,373) – Inactive (6,910) = Active (10,463)) was based on TRC's (and other high security entitlement holders') historical maximum total usage from all water sources in the Peel Valley, including Chaffey Dam and Dungowan Dam. If TRC were to use less water from one source and more water from another source while holding its total water usage constant, this would not affect the number of active entitlements used to calculate the 2017 Security Factor. Under this scenario, all else being equal, the 2017 Security Factor would not change.

We note that the methodology and information used to calculate the Security Factor is subject to review and potential change at the next price review.

Potential impact on 2017 Reliability Ratio

We understand that the draft proposal to change the Peel WSP could impact allocations for both High Security Entitlement holders (ie, allocations likely to increase on average) and General Security Entitlements holders (ie, allocations likely to decrease on average). If the 20-year average High Security allocation was higher than 98% and/or the 20-year average General Security allocation was lower than 62%, the 2017 Reliability Ratio would be higher than the 1.58 used to calculate the 2017 HSP. If the 2017 Reliability Ratio were higher, all else being equal, the 2017 HSP would be higher. The extent to which the TRC's draft proposal to change the Peel WSP could impact the 2017 Reliability Ratio would depend on the size and timing of the changes in allocations and how these are reflected in the 20-year average allocations. This would be driven by factors including climate conditions, which we are not in a position to estimate.

We note that the methodology and information used to calculate the Reliability Ratio is subject to review and potential change at the next price review.

- The PVWUA claim the total use for General Security (GS) license holders will be reduced to approx. 4,810 ML's per year.

  Staff comment: Staff are not sure where this number is calculated from but the following is suggested. GS license holders users must limit use to approx. 6,100 ML's per year under the Murray Darling Basin Plan. Using 79% of the time a 100% allocation is made equates to 100% of the time General Security will receive 79% of their allocation. 79% of 6,100 is 4,819 ML's. However, this figure is not accurate as at this reliability GS license holders get 100% allocation in 79 years out of 100 and a reduced allocation in the other years, which could be anything from 0 to 100% - 4,810 ML's would only occur if the AWD was zero in all other years.

- PVWUA has indicated Council needs to see what effect the change will have when the dam is at different levels at the start of the water year before making a decision.

  Staff comment: Modelling undertaken by the NSW Department of Industry – Water shows over the long term reliability for GS shows a reduction in reliability from an 89% chance of 100% allocation to 79%. This would indicate, regardless of dam levels at the start of the water year, on average there will be a 10% reduction in reliability for GS license holders.

- Some attendees at the stakeholder discussion asked about the cost to Council under the old 40/60 fixed/usage charge compared to the 80/20 fixed/usage. The table below shows the figures considered by Council during the most recent review by IPART conducted in 2017.

	2017-18 Proposed (80/20) Water NSW		**2017-18 IPART Draft Determination (40/60)**	
	Charge	Total	Charge	Total
Fixed – Entitlement 16,400 ML's	$41.47	$680,108	$20.77	$340,628
Usage – ave annual usage 4,715 ML's	$18.32	$86,378	$54.97	$259,183
		$766,486		**$599,811**

Other information that has been made available since the stakeholder meeting and the most recent report to Council, which Council may like to consider whilst deliberating on this matter includes:

- advice from DOI water is that under the present WSP, at the commencement of the water year, when the resource assessment is undertaken, 100% is set aside for that water year (yr 1) for LWU's and 70% for the second year;
- there are 183 General Security Water Access Licenses issued in the Peel Regulated system; and
- DOI Water believes that at the start of water year if entitlements cannot be met then the WSP may be suspended. Modelling suggests this would have happened twice over the past 120 years with 100% allocation for LWU's. Whilst the lack of certainly about allocations when there is no WSP is of concern it is considered Tamworth's water needs would be protected.

Council is advised should Council agree to pursue the proposed change, there is no guarantee the change will survive the WRP process, particularly given the concerns/opposition raised by other stakeholders. However, one of Council's main concerns moving forward is to further enhance the security and reliability of the Tamworth water supply. The proposed change, if ultimately adopted, will lead to a 10% improvement in reliability and it is therefore recommended Council agree to pursue the change.

(a) Policy Implications

Nil

(b) Financial Implications

There is a possibility if Council agrees to pursue the proposal and the changes are ultimately adopted, charges paid by Council in the future may increase. However, IPART has indicated they cannot provide definitive advice on whether this would be the case and if so the change to charges.

It is pointed out however that IPART are free to change the pricing calculations during any review, which may lead to additional charges for Council even without the proposed change, as occurred in the most recent review.

(c) Legal Implications

Nil

(d) Community Consultation

A meeting with stakeholders was held on 4 July 2018.

FOR ACTION

ORDINARY COUNCIL **24/07/2018**

TO: Director Water and Waste (Bruce Logan)

Subject: Proposal to Pursue a Change in Clause 48 of the Peel Water Sharing Plan Changing AWD's for Local Water Utilities from 70% to 100%
Target Date: 7/08/2018
File Reference SF514 2018-142271

Notes:

8.3 PROPOSAL TO PURSUE A CHANGE IN CLAUSE 48 OF THE PEEL WATER SHARING PLAN CHANGING AWD'S FOR LOCAL WATER UTILITIES FROM 70% TO 100% – FILE NO SF514

DIRECTORATE: **WATER AND WASTE**
AUTHOR: **Bruce Logan, Director Water and Waste**

Reference: **Item 8.3 to Ordinary Council 12 June 2018 - Minute No 190/18**

MOTION

Moved Cr Betts/Cr Tickle

That in relation to the report "Proposal to Pursue a Change in Clause 48 of the Peel Water Sharing Plan changing AWD's for Local Water Utilities from 70% to 100%", Council:

(i) formally advise the NSW Department of Industry – Water Council seeks, as part of the current Water Resource Planning process in the Peel/Namoi, to change Clause 48 of the next Peel Water Sharing Plan so that instead of a 70% Available Water Determination for Local Water Utilities this figure is changed to 100%; and

(ii) request the Director Water and Waste to advise other stakeholders of Council's decision at the next Namoi/Peel Water Resource Plan Stakeholders Advisory Panel meeting scheduled for 2 August 2018.

116/18 RESOLVED

Open Item in Minutes

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8.3 INCREASED COST OF WATER FROM CHAFFEY DAM AND A PROPOSAL TO IMPROVE SECURITY OF TAMWORTH'S WATER SUPPLY – FILE NO SF514

DIRECTORATE: **WATER AND WASTE**
AUTHOR: **Bruce Logan, Director Water and Waste**

RECOMMENDATION

That in relation to the report "Increased Cost of Water from Chaffey Dam and a Proposal to Improve Security of Tamworth's Water Supply", Council:

(i) maximise the volume of water sourced from Chaffey Dam in the future and hold the Dungowan Dam supply in reserve for use only when operational or emergency reasons dictate;
(ii) request the Director Water and Waste investigate ways to minimise outflow from Dungowan Dam around the automatic tipping gate to maximise the volume of water stored; and
(iii) agree to discussions with stakeholders, including the Peel Valley Water Users, NSW Office of Environment and Heritage and the Commonwealth Environmental Water Holder before formally deciding whether to further pursue the proposal seeking changes in the Namoi/Peel Water Resource Plan and the associated Peel Water Sharing Plan altering the available water determination at the start of the water year for Local Water Utility Licenses to 100%.

SUMMARY

As of 1 July 2018, new charges will be introduced in the Peel Valley which will see Council pay considerably more in annual charges for water stored in, and sourced from, Chaffey Dam even if the water is used or not.

In addition the Namoi/Peel Water Resource Plan for surface water in the Namoi/Peel Valley is presently being prepared. The Water Resource Plan sits above the Peel Water Sharing Plan (WSP) and informs the WSP. There is an opportunity, as part of the development of this Plan, to endeavour to change one aspect of the current Peel WSP which, if completed, would see an increase in reliability and security of Tamworth's Water Supply. However, general security license holders in the Peel have concerns about the proposed change and an associated reduction in reliability and security for general security license holders.

The purpose of this report is to seek Council direction in relation to both of these matters.

COMMENTARY

Council presently has a Local Water Utility License from Chaffey Dam of 16,400 Megalitres (ML's). Council pays charges to access this water. There is no category for local water utility licenses so Council pays the same as High Security licenses holders. Councillors may recall the following:

- charges are levied as fixed or annual charges and consumption or usage charges;
- fixed charges are levied whether any water is used or not, whilst usage charges are levied based on the volume of water used;
- charges are set by the NSW Government based on recommendations from IPART, which undertakes four yearly reviews of charging;
- during the most recent four yearly review of charging, IPART proposed changing the split up of how much revenue Water NSW raises from fixed

compared to usage charges from a ratio of 40% fixed and 60% usage to 80% fixed and 20% usage;

- Council formally objected to the proposed change, because on average Tamworth's annual water consumption over the last 25 years has been 8,414 ML's and approximately 56% of this water has been sourced from Chaffey Dam. As a result, Council only accesses on average about 4,715 ML's annually from Chaffey Dam even though the entitlement is 16,400 ML's. Increasing the fixed percentage would push up the cost Council paid to have access to the entitlement even though Council usually uses only about 27% of its entitlement annually;
- However, IPART recommended the change in its final determination, and that the change in ratio comes into effect on 1 July 2018; and
- as a result, as of 1 July 2018, Council will pay approximately $680,000 to Water NSW in annual charges, whether Council sources any water from Chaffey Dam or not.

The rules about how licenses or entitlements, and water generally are accessed in the Peel Valley are set down in the Peel Water Sharing Plan. Clause 48 of the plan includes the following:

- Local Water Utility (LWU) license holders will receive an Available Water Determination (AWD) of 70% at start of the water year and further; and
- sufficient volumes of water shall be set aside in Chaffey Dam so that 70% of LWU entitlements can be maintained through a repeat of the worst inflows on record.

Basically this means that prior to the start of the water year (1 July) an assessment is made of the volume of storage in Chaffey Dam and of the likelihood for inflows over the coming year. If there is sufficient volume in the dam to supply 70% of Council's entitlement of 16,400, (70% of 16,400 = 11,480 ML's) even if the worst inflows on record are repeated over the coming 12 months, then, in effect, that volume is set aside and any remaining volume in the storage is available for allocation to other high security and general security users.

Councillors may like to consider the following:

- even though only 11,480 ML's is used in the calculation to work out the volume of water to be set aside for Council's use, as of 1 July 2018, Council will pay $680,000 based on the full entitlement of 16,400 ML's;
- using the lower figure means that more water is available for other users;
- restrictions in Tamworth are set by the volume of water in Chaffey Dam. If full entitlement was set aside in the dam at the start of a water year then the point when restrictions are introduced in Tamworth would be delayed;
- during drought, also known as, in terms of dams, a period of low inflows, losses in the system between Chaffey Dam and the Peel River Intake for Tamworth's water supply can be as high as 100%. That is, for every one Megalitre of water required at the intake works, two ML's needs to be released from Chaffey Dam;
- so during a prolonged drought only 50% of the water stored in the dam is actually available for use in Tamworth; and
- if 100% of Council's entitlement was used to calculate the volume of storage to be set aside, then 8,200 ML's would be available, allowing for losses, for use in Tamworth during a prolonged drought. By using 70% of Council's entitlement 5,740 ML's are available during a prolonged drought. The lower figure costs Council $680,000 in annual charges and the higher figure would cost the same.

Further:

- Council contributed one quarter of the cost of Chaffey Dam construction (State Govt. provided one half of Council's cost) in return for an entitlement of 16,400 ML's (about one quarter of the original storage);
- Council contributed $4.76 Million to the recently completed augmentation to Chaffey Dam improving reliability of supply;
- Council is now paying more for water even though Council contributed to the cost of construction and augmentation; and
- the new charging regime has been imposed on Council by the NSW Government based on an IPART recommendation even though Council formally objected.

There are two issues facing Council. The first is the increased annual cost of water from Chaffey Dam and the second is the setting aside of 70% of Council's entitlement at the start of the water year.

In relation to the increased cost of water from Chaffey Dam it is considered Council has a number of options as follows:

Option 1 – do nothing. Council could simply accept the higher charges and take no further action.

Option 2 – maximise use of Chaffey Dam. Given Council pays annual charges whether water is used or not, and the unit cost of the water sourced from Chaffey Dam will decrease the more water is sourced, Council could maximise its use of water from Chaffey Dam. In relation to this option:

- water sourced from Dungowan Dam is cheaper and of better quality, meaning it costs less to treat than water from Chaffey Dam;
- the design of the automatic tipping gate at Dungowan Dam relies on water flowing through a sluice gate and being released downstream of the dam. Water does not stop flowing through the sluice gate until the water level in the dam storage is at, or below, 65%. As a result, water is constantly lost from the storage when the level is above 65%. Therefore, given water is constantly being released when the storage is above 65%, the stored water should be accessed for use in Tamworth, rather then be lost; and
- increased use from Chaffey will have a negative impact on reliability for general security users.

Option 3 – surrender part of Council's entitlement to avoid annual charges. Council could surrender part of its entitlement from Chaffey Dam to avoid the annual charges. For example, if Council surrendered (a LWU license cannot be sold/permanently traded, except to another LWU, and Council is the only LWU in the Peel) 30% of its entitlement in Chaffey Dam, the annual charge for the new entitlement of 11,480 ML's would be $204,000 less than the annual charge associated with 16,400 ML's.

However, Tamworth's average water consumption would not change at 8,418 ML's per year and the 70% AWD would still apply meaning that 8,036 ML's (70% of 11,480) would be set aside at the start of the water year and during a prolonged drought, with 100% losses in stream, only 4,018 ML's would be available for use.

Advice is that if needed, more entitlement would be made available by the NSW Government, but by the time this decision would be required, the region would be in a prolonged drought and therefore, there may not be any more water in Chaffey Dam to make available.

Option 4 - temporarily trade some of Council's entitlement and offset costs through income received. Council, as an LWU entitlement holder, can temporarily trade some of its entitlement to other users in the Peel and Namoi Valleys. Temporary trades lapse at the end of each water year. In order to temporarily trade, Council

must have an Integrated Water Cycle Management Plan prepared using the NSW Government's 2014 guidelines (Council does not have this document at this time) and seek Ministerial approval for any trades.

In relation to this option Council may also like to consider the following:

- if Council continually trades water, the relevant NSW Minister can and may reduce our entitlement;
- trades will only be attractive as it gets drier, which is also when Council should be considering storing more water if the dry weather persists and becomes a drought; and
- a decision to temporarily trade will only ever be judged in hindsight and Council will be criticised for trading water and a drought develops.

Based on the options listed above it is recommended Council maximise the amount of water sourced from Chaffey Dam in the future and investigate ways to reduce, or prevent, water being lost at Dungowan Dam through the sluice gate.

In relation to the second issue of only 70% of Council's entitlement being used to calculate the volume of water set aside in Chaffey Dam for Council's use, there is only one way to change this rule and that is by amending the Peel Valley Water Sharing plan.

The Namoi/Peel Water Resource Plan is presently being prepared. The Water Resource Plan sits above and informs the Peel WSP. If Council wished to change the Peel WSP so that 100% of Council's entitlement was used for calculating the volume of storage set aside for Council's use, at the start of the water year, then seeking agreement to this change as part of the Water Resource Planning process would be ideal. If such a change was included in the Water Resource Plan then the WSP would be amended to reflect the Resource Plan.

As part of the Water Resource Planning process, the Director Water and Waste has been attending Stakeholder Advisory Panel (SAP) meetings as Council's representative to discuss what should, or should not, be included in the Water Resource Plan for the Namoi/Peel.

The Director has raised the issue of the 70% AWD for LWU's in the Peel previously at SAP meetings and at SAP meeting number three, the Department of Industry - Water representatives agreed to undertake modelling to calculate the effect a change from 70% to 100% AWD for LWU's would have in the Peel Valley.

At SAP meeting four, held on 3 May 2018, the results of this modelling were presented, with the results as follows:

- increase in minimum storage reserve from 21,500 ML's to 24,500 ML's;
- 8% increase in reliability for Tamworth, suggesting instead of having water restrictions approximately one year in nine restrictions would occur approximately one year in ten; and
- 10% reduction in reliability for General Security, which translates to, instead of an 89% chance of 100% AWD on 1 July, general security reliability would fall to 79% chance of 100% AWD on 1 July each year.

Following presentation of the modelling results, representatives of the general security license holders in the Peel, including the Peel Valley Water Users, the NSW Office of Environment and Heritage and the Commonwealth Environmental Water Holder all expressed concern about changing the AWD for LWU's from 70% to 100%. The Director indicated that as Council has not as yet formally considered this issue and therefore has not made a decision about whether or not to pursue the change in AWD, a report would be prepared for a future Council Meeting for Council's consideration and formal advice on Council's position on this matter would

be provided to the next SAP meeting scheduled for 1 August 2018. Given the concerns of general security licenses holders, Council would also be asked to consider whether to hold a meeting with representatives of these license holders to hear their concerns before Council made a final decision.

(a) Policy Implications

Nil

(b) Financial Implications

As of 1 July 2018, Council will commence paying annual charges of $680,000 to Water NSW for supply of water from Chaffey Dam whether any water is sourced from the Dam or not.

(c) Legal Implications

Nil

(d) Community Consultation

Nil

FOR ACTION

ORDINARY COUNCIL **12/06/2018**

TO: Director Water and Waste [redacted]

Subject: Increased Cost of Water from Chaffey Dam and a Proposal to Improve Security of Tamworth's Water Supply
Target Date: 26/06/2018
File Reference SF514 2018-113475

Notes:

8.3 INCREASED COST OF WATER FROM CHAFFEY DAM AND A PROPOSAL TO IMPROVE SECURITY OF TAMWORTH'S WATER SUPPLY – FILE NO SF514

DIRECTORATE: **WATER AND WASTE**
AUTHOR: [redacted]

MOTION

[redacted]

That in relation to the report "Increased Cost of Water from Chaffey Dam and a Proposal to Improve Security of Tamworth's Water Supply", Council:

(i) maximise the volume of water sourced from Chaffey Dam in the future and hold the Dungowan Dam supply in reserve for use only when operational or emergency reasons dictate;

(ii) request the Director Water and Waste investigate ways to minimise outflow from Dungowan Dam around the automatic tipping gate to maximise the volume of water stored; and

(iii) agree to discussions with stakeholders, including the Peel Valley Water Users, NSW Office of Environment and Heritage and the Commonwealth Environmental Water Holder before formally deciding whether to further pursue the proposal seeking changes in the Namoi/Peel Water Resource Plan and the associated Peel Water Sharing Plan altering the available water determination at the start of the water year for Local Water Utility Licenses to 100%.

190/18 RESOLVED

Open Item in Minutes

This action sheet has been produced by Corporate and Governance Business Support from the Minutes using **InfoCouncil**

Attachment 2

2018-220021

The Hon Niall Blair MLC
Minister for Primary Industries
Minister for Regional Water
Minister for Trade and Industry

IM18/22144

[redacted]

Email N Hunter

Dear [redacted]

Thank you for your letter of 6 August 2018 concerning proposed changes to the Peel Water Sharing Plan (WSP).

The Department of Industry (DoI) – Water takes the issues of all stakeholders and water users very seriously. Water allocations are made in accordance with statutory water sharing plans, which are developed in consultation with water users. The Department has little discretion when allocating water.

Although your proposal seeks to improve town water supply security it would likely affect other water users. I am advised that a report outlining the impact of the proposed changes was presented to the Namoi-Peel Stakeholder Advisory Panel (SAP) on 2 May 2018.

The proposal was discussed within the Namoi-Peel Stakeholder Advisory Committee on 2 Aug 2018.

I understand that Council also consulted relevant stakeholders on this issue.

The amendments proposed to the WSP would adversely impact general security license holders, including the licences held by the Commonwealth Environmental Water Holder (CEWH) as well as the Environmental Contingency Allowance (ECA) account.

I acknowledge the contribution of Tamworth Regional Council in the Chaffey Dam Augmentation Project. However, the amendments proposed by Council cannot be supported because:

1. They are not based on any demonstrable need for additional water security.
    - Council has an entitlement of 16,400 ML of Local Water Utility Access Licence within the Peel WSP;
    - the current water usage is about 8,500 ML/year;
    - since the Peel WSP commenced in 2012, Tamworth has received 100 per cent of its allocation in all but one year (2014-15) due to dry conditions; and
    - in that year, Council received a 70 per cent allocation, as prescribed by the WSP.
2. The rules of the Peel WSP are such that an available water determination (AWD) for regulated river (general security) access licences cannot be made until the available water determinations for local water utility access licences reach 100 per cent of share components, and for regulated river (high security) access licences, reach 1 ML per unit of share component.

.../2

GPO Box 5341, Sydney NSW 2001
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2018-220021

3. DoI Water has modelled the effect of the proposed rule change. The outcome is a reduction in the reliability of the general security entitlements (irrigators and environmental holders).
4. The risk that Council's water supply is severely impacted if there is a drought that is more severe than the worst on record.
    - If this were the case, and the WSP was suspended, Tamworth would no longer have a 'known' minimum allocation.
5. The rule change has potential for reducing the volume of planned environmental water – this is a Basin Plan accreditation requirement and it is likely to impact accreditation if the rule change was to go ahead.
6. The proposed amendment may trigger clause 87 of the *Water Management Act 2000*, requiring the Minister to determine whether or not compensation should be paid to the other water users in the Peel Valley.

I note that Council's proposal is also opposed by the Peel Valley Water Users as recorded at the SAP meeting on 2 Aug 2018.

If you require additional information, or wish to discuss this matter further, please contact Mr Peter Hyde, Director Water Planning with DoI Water, on 0419 162 826.

Thank you for your interest in this matter. I trust this information is of assistance to you.

Yours sincerely

The Hon Niall Blair MLC
Minister for Primary Industries
Minister for Regional Water
Minister for Trade and Industry

12 OCT 2018

[redacted]

Water in NSW
namoi.sw.wrp@dpi.nsw.gov.au
15 November 2019
Re: Draft Namoi Surface Water Resource Plan.

Dear Sir/Madam,

Thank you for an opportunity to comment on the draft Namoi Surface Water Resource Plan (draft WRP). My interest in commenting due to my concerns at the poor environmental condition of Australia's most significant river system and that the rights of First Nations to water access are respected.

I do not have a background in science or am I a user of water within the basin. We own property along an upper tributary of the Macquarie River. The vegetation which covers most of our 23 hectares provides ecosystem services by way of improved water quality and quantity to Duckmaloi Creek, erosion control and biodiversity protection. We receive no tax rebates/financial subsidies in our protection and management of these ecosystem services.

Our family has always enjoyed outback travel in NSW and is keen to support regional towns during these travels. However, bone dry waterways and disappearing native bird wetlands means such trips are much less enjoyable. The chronic mismanagement of land and water in NSW makes it hard to dismiss the obviously parched landscapes as due solely to the current drought.

After 2012 sign off on the Murray Darling Basin Plan (MDBP), NSW should have been working constructively and collaboratively to develop accredited Water Resource Plans (WRPs) to start this July. Rather, government focus has been on restructures to form super departments, dismantling of important natural resource management administrative structures and reactive policy responses at times when water theft, non compliances, dead fish and fiddling of water accounting methods to favour irrigators have had media exposure.

Sadly collapsing natural ecosystems, dead fish, putrid water holes, dying red gums and degraded RAMSAR listed wetlands reflect eight years of expensive government recalcitrance and maladministration. The important accreditation process of WRPs accreditation stays behind schedule and a low priority.

This was confirmed in the recent MDBA review of the MDBA/NSW Bilateral Agreement (BIA) signed off on this February. Of the nine actions NSW agreed to complete on or before 16 June 2019, only two were completed. All of these ten actions are critical to the accreditation of the WRPs.

Until the estimates used in NSW water management are realized as actual water in the WRPs via accurate measurement, transparent accounting methods and robust modelling, the rules around the use and management of these rubbery estimates will be sloppy and opaque.

To now fast track preparation and accreditation signoff at the 11th hour of these critical WRPs reflects a State administration in absolute shambles in its management of natural resources.

The bombardment of draft documents on exhibition is unfair to those in the community wishing to provide input into this important process of reform of the MDBP. I have no doubt that this has been exhausting period for those concerned individuals and groups that have tracked the whole eight years of NSW government inaction.

My submission focuses on what I understand to be that which is on formal exhibition ie the documents to be submitted for MDBA accreditation which include the draft WRP, its supporting documents and the proposed amendments to the Water Sharing Plans (WSPs). I am relying on the text in the blue boxes as per stated in the draft WRP:

"Blue-boxed text in each section is provided for accreditation by the MDBA. This text may refer to all or part of an attached schedule, and in these instances, that schedule or part thereof is also to be assessed by the MDBA for accreditation."

I understand exhibition includes, as stated in the blue boxes, the proposed amendments to *Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2020* (N Reg WSP), *Water Sharing Plan for the Peel Regulated River Water Source 2020,* (P Reg WSP) and *Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012* (N&P Unreg. WSP).

Overall, I feel it is too complex for me to fully comment on the relationship, and any subsequent conflict, between the MDBP and the way WSPs operate in NSW. Technically this "relationship" is not on public exhibition but it is a critical issue for MDBP implementation. WSPs that have had review indicate significant inconsistency with State water management laws.

Arising conflicts in this relationship, both current and potential, are not well identified in the exhibited documents. Fact sheets and document linkages have a role in public information but they are not always helpful in transparent community engagement and consultation. It is not possible to fully understand what impediments to sustainable water use and management is created by NSW's WSPs.

WSPs continue to be the legal instruments for managing water resources in NSW. They appear derived from legislation with objects to provide for sustainable and integrated management of water sources in NSW "for the benefit of both present and future generations" but their important and necessary alignment with WRPs to effectively implement the Basin Plan has been buried in NSW's political machinations of NSW's administration.

The necessary independent reviews of the WSPs has lagged as the NSW administration has juggled crises and grappled with its responsibilities under the Basin Plan. Thus far it has escaped proper scrutiny of the unsustainable water use and management entrenched in the WSPs.

The recent Natural Resources Commission (NRC) review of the Barwon-Darling WSP exposed many management problems and need for stronger rules either immediately or in a staged re-write of the whole WSP.

The adequacy of current WSPs to comply with MDBA accreditation is ludicrous. They ignore best science water modeling, contain unresolved floodplain accounting methods, demonstrate poor protection of environmental water and lack context within a well resourced monitoring and compliance framework and robust water trade arrangements.

If these WSPs continue to fail to take account of the urgent need for sustainable use and management of basin water, then NSW WSPs must be "called out" for the significant risk they pose to the achievement of the vision in the MDBP and its important intent to facilitate sustainable use of the Basin's water resources.

Please find my concerns on the information in each blue box as below.

Yours sincerely,

[redacted].

INTRODUCTION:

There is a series of linked documents which are on exhibition on the Department of Planning, Industry and Environment - Water website but the relationship between them is not clearly stated. There is no reference in the draft WRP to the policy document, *Active Management in Unregulated Rivers* currently on exhibition and whether it has connection with the two Unregulated WSPs. This constitutes a form of "shadow transparency" which breaches recent government commitments to improved public consultation.

If the benefits of water shepherding are proposed as a State water management policy, then active management should be implemented across all WSPs covering unregulated rivers with the adoption of accredited WRPs not an ad hoc staged introduction via some WSPs.

It is confusing as to who undertakes the exhibition process for the Draft Namoi Long Term Water Plan (LTWP). This document is included in the exhibited draft WRP supporting documents on the Department of Planning, Industry and Environment (DPI) website. It is not for accreditation purposes but why it isn't included is not properly explained. It has a life of up to 20 years as a watering plan for the complex ecology and hydrology of MDB but has a review date five years before the WSPs if I am understanding the process correctly.

It also seems to have a different consultation pathway but it is unclear what part of DPI will consider community submissions. "Super departments" may reassure government itself of improved operational efficiencies but it can be argued this is at the expense of government transparency, in policy development, meaningful public engagement and opportunity for community scrutiny.

Generally, government assurance of improved transparency and accountability is not evident on NSW's water management websites where information is confusing for the general public. Information is not always updated properly and links often indecipherable eg. the status of 12 of NSW's WSPs lack supporting documentation and just link to the actual legislation which is meaningless for the average person. Documents are often buried or missing eg information on the BIA does not appear to be on the NSW Industry website.

COMMENTS ON BLUE BOX TEXT:

1.3 Objectives and guiding principles

A statement that the draft WRP genuinely "recognises" the objectives of Chapter 5 of the MDBP is meaningless without consideration of whether the supporting WSPs also properly reflect the objectives of Chapter 5.

It is arguable whether the clauses in the three WSPs meaningfully "refine" the important outcomes and objectives of the MDBP or further muddy the waters of the overarching objective of improved sustainability in water use and management as required under State and Commonwealth legislation.

It is erroneous to include "economic" in the clauses of the WSPs being submitted for accreditation. This implies an equal priority of water use for economic benefit, especially to the contentious irrigation industry where major irregularity has been exposed.

Its inclusion as an objective undermines the important aim of the MDBP to deliver, in the genuine national interest, a healthy and working Murray-Darling Basin and achieve improved outcomes for all Australians based on sustainable management of water resources in the basin. An "economic" objective with equal priority to environmental objectives is nonsensical and contradictory to this aim.

It is also unclear why Aboriginal cultural objectives are included in 1.3. Chapter 10 Part 14 of the MDBP requires demonstration in the draft WRP of how Indigenous Values and Uses have been identified. It details the required objectives and outcomes based on these important values. These matters are addressed in other parts of the draft WRP and superfluous to accreditation as stated in 1.3.

Overall, it would seem that the current WSPs within the N WRPA are to undergo a major overhaul: the *Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010* effectively dismantled and the other three component water sources managed within two other WSPs within the N WRPA or *Namoi Alluvium Water Resource Plan*.

The justification for this restructure within the context of State and Commonwealth legislative requirements for sustainable water use and management is not apparent in the exhibited documents to the general public. It is unclear whether this will achieve improved environmental outcomes especially in relation to their contribution to critical whole of basin connectivity.

The effectiveness of NSW's WSPs to meet the intent of the State water management legislative regime has not been adequately reviewed to inform any necessary revisions of current WSPs to support the draft WRP. The WSP auditing process has been very erratic in NSW as outlined below. It is confusing as to what auditing has occurred of the specific effectiveness of the three WSPs to be amended and what improvements made in response of such an audit.

The Peel Valley component of the draft WRP is currently under review by the NRC and given the tightness of the accreditation process whether the findings of that review will be able to inform the draft WRP is unclear.

The MDBA rated the river ecosystem health of the Namoi Valley as poor in the 2008-10 Sustainable Rivers Audit with fish community rated very poor especially for native fish recruitment. Alien species contributed 67% of sampled biomass. The NSW Namoi Surface Water Resource Plan - Water Quality Management Plan (WQMP) which supports the draft WRP makes no reference to the MDBA's 2010 audit.

In the Namoi Water Resource Plan - Surface Water Status and Issues Paper (S&IP) DPI identified high and medium risks to ecological values in base flows, fresh flows, high/infrequent and zero flows in the regulated system. DPI acknowledged that there will be instances where risk mitigation is not possible due to a range of constraints including infrastructure. Any meaningful analysis of risk the ecological values in unregulated waters seems mostly based on DPI assumptions due to significant uncertainty in water take.

Overall, it would seem that the effectiveness of the WSPs to deliver improve environmental outcomes for the Namoi Valley is arguable in the absence of rigorous review. As NSW moves, with the recent dam announcements, to bring more water in the Namoi Valley under a regulated regime, risks to ecological flows seem more under threat and risk mitigation responses even more compromised.

My final more general comment about 1.3 Objectives and guiding principles is regards the curious inclusion of the statement that "Additionally, this Plan recognises the objective identified in section 1.2 of the 2017 Intergovernmental Agreement on Implementing Water Reform in the Murray Darling Basin." This seems to occur in a number of WRPs.

Section 1.2 states:
"The objective of this Agreement is to ensure that the Commonwealth led Basin water reforms, including the Basin Plan, are implemented in a cost effective manner to support the national interest of improving river and wetland health, putting water use on a sustainable footing, enhancing irrigation productivity, providing water for critical human needs, and providing farmers and communities with more confidence to plan for a future with less water."

This suggests a spurious rewrite of the "national interest" referenced in 5.02 (c) of the Basin Plan ie "*to optimise social, economic and environmental outcomes arising from the use of Basin water resources in the national interest;"*

Most members of the public would ask has it been in the "national interest" to provide money to enhance irrigation productivity with projects not properly assessed for their full environmental impact? The use of taxpayer money has not been cost effective in this regard (refer recent 4Corners episode).

How cost effective for the nation has the dead fish cleanup (and fish relocation) been compared to longer term resourcing of improved compliance on irrigation water use? How can farmers plan for a future with less water when predictions of trending lower rainfall and hotter changing seasons are not accurately and consistently modelled? Is it in the national interest for regional towns to be reliant longer term on sporadic dam levels as a consequence of a changing climate rather than healthy rivers for swimming and fishing. Why aren't Indigenous values and uses recognized in Section 1.2?

It is not adequately explained why Section 1.2 of this document is included and arguably confirms the strongly felt public sentiment that NSW has made only tokenistic attempts to fulfill its commitment to the MDBP they signed up to over eight years ago.

This reference needs to be removed as it is irrelevant and contradictory to the accreditation process that NSW needs to comply with under the Basin Plan. In the interests of full transparency and accountability the recent BIA between NSW and the MDBA should be included and NSW's review report card failure from July.

SUMMARY OF AUDIT HISTORY

The NRC audit in 2013 of the Regulated Rivers WSPs due to expire in 2014, included those for the Namoi Valley. This 2013 audit covered over 30 WSPs. It did not include Peel Valley WSPs.

The NRC had an important role in assessing the effectiveness of the WSPs in relation to overall landscape health. At the time NSW had developed a more integrated approach to landscape management which was recognised in other state plans and policies eg catchment action plans and NSW Government's NSW 2021.

The Namoi Catchment Management Authority summarized this in their submission to the NRC:

"The Namoi CAP 2010-2020 is a strategic statutory plan which guides sustainable natural resource management in the Namoi Catchment. The Namoi CAP 2010–2020 was developed following a review of the Namoi CAP 2007 and is based on 'resilience thinking' and environmental thresholds in determining the Catchment Targets. This CAP was developed in consultation with the Catchment community and government. The Namoi CAP 2010–2020 complements other natural resource plans including water sharing plans, regional strategies, conservation plans, and has a key role in addressing the environmental, social and economic priorities of the NSW State Plan."

Since then Catchment Action Authorities and their strategic water resource plans have disappeared and the status of NSW 2021 is unclear.

NRC report was generic in its audit response. It concluded that, despite recognition of significant knowledge gaps there was a "weight of evidence" that replacing the plans would benefit consumptive users and the environment.

Whilst the revised WSPs were improvements on the 2004 WSPs "more can still be done to improve monitoring, evaluation and reporting; increase transparency; address issues around risk; integrate surface and groundwater management; and minimise constraints on the carryover, trade and use of environmental water."

However, given the replacement of WSPs would be necessary as the MDBP progressed, the development of improved WSPs did not occur and NSW water management was "off the hook".

Many of these issues still seem unresolved eight years later. In this rushed and complex exhibition process it would seem that WSPs are effectively being "rolled over" at State level in complete disregard of both the 2012 MDBP requirements for good alignment between WSPs and WRPs and the auditing requirements of the State laws.

1.3.2 Objectives and outcomes based on Indigenous values and uses

Ensuring adequate water for cultural activities and the enhancement of ecosystems is integral to on country experiences for First Nations. It is evident from the First Nation consultation that a significant number of risks to Indigenous values and uses of water resources of the Namoi Valley.

The draft WRP seems deficit in addressing these risks.

The processing of Land Claims has been very slow and frustrating for First Nations and the draft WSPs should take account of any future amendments that may be required when claims are settled.

Box 1-2 *The Importance of water to Aboriginal Nations* should be included in the blue box text.

1.5 Form of water resource plan and responsible persons

The limited auditing of WSPs, some of which is still underway during the exhibition of this draft WRP coupled with the complete "restructuring" of WSPs for the purposes of this draft WRP suggests it is impossible to know if the proposed WSPs will meet the requirements of the MDBP for sustainable use and management of basin water.

For the community this represents a continued lack of transparency that has plagued government administration since commencement of the WSPs in 2004.

Presumably Schedule B is submitted for accreditation. This should be clarified.

I feel the Index in Schedule B should be better explained. The explanation seems poorly worded and confusing. There are many MDBP requirements where the NSW Minister is identified as the responsible person. Given the history of inappropriate and poor ministerial intervention in water management in NSW, this needs clarification. In the interests of transparency and improved administrative function ministerial responsibility needs definition and/or stronger rules stated in the WSPs.

Unfortunately NSW Water Ministers have not demonstrated to the community a capacity and commitment to meet NSW's responsibilities under the MDBP to which NSW signed up.

1.7 Consultation undertaken

Information regards broader consultation is inadequate. The link on the DPI - Water website directs to the S&IP but there is no information about the submissions or the Issues Assessment Report which are stated in the draft WRP to form part of the Consultation Report.

1.8 Review and amendment

It needs to be directly stated that amendments to the WRPs and supporting WSPs will be necessary for such matters as: finalisation of the floodplain harvesting policy, an effective active management policy, real time water measurement information, revised water amounts based on improved understanding of actual water use, improvements in methods from actual water use accounting, consistent and improved and co-ordinated basin wide modelling of connectivity and environmental impacts across WRPAs.

All future reviews should be independent.

2.1 Identification of WRP area, SDL resource unit and water resources

For the broader community it is puzzling why the P Reg WSP is separate to the N Reg WSP yet unregulated water sources for the Namoi and its Peel tributary aren't. This seems inconsistent with basic principles of total catchment management and the intent of the MDBP.

This restructure needs to be better justified and the draft WRP needs to better demonstrate the alignment of the three WSPs to the intent of the draft WRP to meet the objectives of the MDBP. Any adverse impacts arising for this restructure of water sharing arrangements will potentially be amplified by the proposed changes to water trading within the WRPA.

The status of the *Water Sharing Plan for the Peel Alluvial Groundwater Sources 2020* mentioned in draft *Water Sharing Plan for the Peel River Regulated Water Source 2020* needs clarification. It is not provided as an exhibited supporting document to the draft WRP.

The new Water Sharing Plan for the *Namoi Alluvial Groundwater Sources 2019* says it covers the Peel Alluvium Water Sources. This may just be a typographical error which needs correction.

2.2 Regard to other water sources

Overall, rules in the WSPs are weak in ensuring protection of other water sources. The vague targets for environmental objectives facilitate limited opportunity for integrated catchment management within and between WRPAs.

It is unclear how the previously demonstrated interconnectivity of water sources within the Peel Valley and the natural and obvious connectivity of the Peel Valley within the Namoi Valley will be sustainably managed via a strong set of rules in the supporting WSPs.

Namoi Valley water sources provide important downstream connectivity and ecological services especially into the Barwon-Darling and lower Darling WRPAs. Given the dire plight of the Darling River exposed by media attention, the community is not confident that the draft WRP has proper "regard to the management and use of these downstream connected water resources". This "regard" needs to be clearly articulated and integrated into the draft WRPs and supporting WSPs if there is to be real improvement in downstream inflows.

A Minister's note in the WSPs indicates government is considering the potential option to allow conversion of regulated river entitlements (high security) from downstream regulated river water sources to access licences in connected, upstream, unregulated river water sources. Presumably this forms part of the draft WRP exhibition process though there is no explicit statement re this and whether this proposed change forms part of the accreditation process.

The conversion of such regulated river (high security) entitlements from downstream regulated river water sources to access licences in connected upstream unregulated water sources is vehemently opposed. This reduces planned environmental water in unregulated streams and reduces volumes of supplementary flows and inflows into storages including for trades above a dam.

It complicates assessment and regulation of environmental impacts where traded licences are extracted.

It is disturbing that water trading between unregulated water sources is proposed. It is unclear whether the DPI method to determine "ecological limitations" is consistent with the LTWP. The DPI method appears to have been developed for the purposes of facilitating trading between unregulated water sources and presumably future extension of such trade. It is unclear where this DPI method has been explained and assessed.

The initial four unregulated river sources identified for where trade can occur based on the DPI method include water sources with high ecological values including migratory fish and bird habitat area.

Curiously most have headwaters in the Pilliga Forests which implies the benefit of the ecosystems services these vegetated areas provide for downstream water availability and can continue to provide if well protected. During flood times it seems the four waterways provide a significant contribution to the Namoi River below Wee Waa.

These water sources most likely have significant local ecological importance but it is unclear what ecological assessment has justified the decision to introduce water trading between them. There is a need for improved transparency and understanding of the rigour DPI undertook in developing "their" method since this potentially "locks in" four trade areas with the possibility for more within the life of the WSP.

Re 10.14 of Basin Plan

10.14 includes "potential effects" on the use and management of non basin water resources in the N WRPA including the taking of groundwater.

The NRC review of the water sharing plan for the Great Artesian Basin groundwater water source 2008 stated: "Connectivity of the GAB with overlying aquifers has additionally been highlighted in areas of the Lower Namoi Alluvium. In these areas it has been noted that the artesian contribution to alluvial groundwater sources is as high as 70%, with a continuum of exchange between the alluvial aquifer and the GAB."

Given the increasing dependency of all sources of groundwater in many drought affected regions the draft WRP needs to take better account of this increased demand on groundwater resources and the potential for unknown localized effects.

The cycle of groundwater recharge and replenishment is often longer than a WRP lifecycle. The robust application of the precautionary principle in the draft WRP is critically important in the management of connected groundwater sources especially regards potential increased reliance on groundwater during drought.

3.1 Risk identification and assessment methodology and 3.2 Description of risks

It is noted that the wrong link is included in the draft WRP to Schedule D (Risk Assessment Information) placed on exhibition though Schedule D is included on the draft WRP website information.

Overall, from the blue box text in 3.1, 3.2 and 3.3 it is somewhat unclear whether all or parts of the Risk Assessment Information are being submitted for accreditation. This needs clarification as it suggests the important 4-3 Consolidated Risk Table is not included for accreditation.

Overall, the risk assessment report in Schedule D presents to the average person as a dense, incomplete and disjointed document. It is difficult to understand properly the relationship between the two documents since the risk assessment information seems absorbed somewhat arbitrarily into the draft WRP.

It is difficult to understand in the risk assessment how the information in the consolidated risk table is transferred into Section 8 Risk Treatment overview and then into the draft WRP. Of significant concern is how the final 18 strategies to be used to mitigate identified risk have been transferred into the draft WRP. The strategies, and how they are robustly derived from risk ratings, would seem critical to the accreditation process. My concerns are further identified below in 3.3.

Table 1 presents as an index table to the risk assessment document rather than providing meaningful information on "all of the medium and high risks and the factors that contributed to them" as described in the text in the blue box.

Improved clarity in all aspects of *Section 3 - Risks to Water Sources* would better assist community understanding of how risks to the MDB are to be managed over the next ten years. The community has a right to know about risk management in the N WRPA given the heightened community concern about the significant environmental problems evident across our precious Murray-Darling Basin.

Future climate change risks are poorly identified and assessed in the risk assessment. This failure carries over into the draft WRP and supporting WSPs which relies on climate variations in longer term assessments of use rather than a proper account of the likely scenario of reduced water availability as a consequence of climate change.

Climate change is an obvious "missing link" in the way BDLs were derived and how SDLs will be assessed in the future. There is a lack of transparency regards the robustness of modeling to take account of different predictions of future climate change which severely undermines the inherent intent of the MDBP to improve the ecological health of the basin.

Also, risk assessment should take account of NSW government policy which attempts a ludicrous balancing act of maintaining "current water user" access with the inevitable context of reduced water availability and increased occurrence of extreme events. This represents a significant undermining of effective risk mitigation of evident and emerging ecological collapse across the basin.

Further, the NSW government recently announced proposals for increased dam infrastructure within NSW, one for the N WRPA. It is unclear how this dam proposal will "fit" within the risk assessment supporting the development of the draft WRP. The risk assessment of the regulated rivers identified a high risk to various flow characteristics caused from existing dam operational constraints. This risk will be amplified with more regulated water in the system.

The risk assessment report does not include a risk assessment of a new dam on regulated and unregulated flows in the N WRPA. Such an interception activity could adversely impact current water sharing arrangements and downstream basin connectivity. It is a major omission in the risk assessment supporting the draft WRP.

Curiously, risk management planning at a comprehensive N WRPA level excludes water for human consumption from the risk mitigation process. Local government is struggling with drinking water supply due to low surface water quantity and poor water quality across the whole basin.

The causal relationship of these low quantities and poor quality appear underpinned by weak WSPs arrangements but exacerbated by the current drought and the consequences of a changing climate.

The stated Local Government approach of …" 'multiple barrier approach' from catchment to tap" appears meaningless within an overall basin context. It seems inappropriate and unfair for only water utilities to implement a risk-based approach for water used for human consumption when NSW has demonstrated evident mismanagement of basin water resources.

Local government certainly has a role in water saving and reuse strategies to manage water access for their communities during drought and in the longer term but low water availability and declining quality must be addressed within Commonwealth's MDBP and draft WRP not isolated from it via fractured State government policies.

Finally, it is deplorable that no information is available to inform the suitability of water for public benefit values (Indigenous and socio-economic). There is no statement as to when this information will be available. The separate document to address Aboriginal cultural requirements is not identified.

The risks to the suitability of water for the public benefit values (Indigenous, socio-economic) needs to be defined regardless of the absence of data. The risk to the public benefit of lost ecosystem services should also be included in 6.5.

There are significant longer term social and economic costs associated with reduced water quality and quantity: poor physical and mental health outcomes; increased transportation costs and greenhouse gas emissions; reduced quality of life; lost tourism opportunities etc. The dismissal of the requirement to undertake risk assessment of the socio-economic public benefit is not justified on grounds of "a lack of data" nor would this seem satisfactory for accreditation purposes.

3.3 Strategies for addressing risks

Once again it is unclear from 3.3 whether all or part of the Schedule D is to be submitted for accreditation purposes. The draft WRP suggests just Section 8 and Table 1 of the risk assessment.

As mentioned above Table 1 presents as an index rather than providing meaningful information. As well, the apparent disconnect between Section 8 and the consolidated risk table 4.3 is concerning and confusing for the average person trying to understand how basin risks will be managed in the draft WRP.

Table 3-1 in the draft WRP lists 18 strategies that are adapted from the Risk Assessment for the Namoi WRPA, Table 8-7. This table is stated to complement the consolidated risk table 4.3. However, only half of these strategies appear to be derived from the consolidated risk table. Whilst some rigour and transparency is apparent in the development of the consolidated risk table, which was compiled in conjunction with the MDBA and in response to stakeholder feedback, the risk treatment process in Section 8 appears the opposite. It is concerning how many new mechanisms cannot be completed until new information is available.

There is no clear statement as to the basis of half of the strategies in Table 3-1 of the draft WRP. There is no clear statement of what risks are being treated and the relationship of the risk treatment overview to the consolidated risk table. It seems illogical to derive a residual risk rating and then exclude the mechanisms/strategies from the strategies to be used in the draft WRP which are considered to have mitigated the original risk rating now described as "tolerable".

There are still over 25 scenarios considered not tolerable if these new mechanisms were applied.

Information clearly presented in the consolidated risk table is "mashed" up in 8.5 - *Summary of strategies to address risk* in a meaningless and obtuse way. The poorly presented table of abbreviations isn't even in alphabetical order.

Further, there seems a fundamental disconnect between the rules in the WSPs and the draft WRP. Whilst it seems that NSW has adopted a risk management in preparation of its WSPs this is not clearly articulated in the risk assessment required for accreditation in the draft WRP.

Rather there is an implicitness that specific rules in the WSPs are adequate to protect environmental water and present as integral to the risk mitigation decision making process in the draft WSPs. This presumption is made despite statements in the risk assessment that there are significant information gaps and no clearly stated integration of the objectives and targets of the LTWP in the WSPs.

This presumption is made in the absence of any rigorous and transparent review of WSPs which remained underpinned by water user security despite NSW commitments to the MDBP and intent to achieve sustainable and equitable use of water resources. The audit process of WSPs in NSW has been erratic and interrupted by the WRP planning processes.

The general public lacks confidence that the current rules in the WSPs are adequate for the protection of environmental water and connectivity across the basin. The recent and continuing fish kills confirming this for many within the broader community. The government has avoided scrutiny of the adequacy of their WSPs to manage such ecological disasters. The draft WRP still relies on the arguably flawed long term average annual extraction limit (LTAAEL) as its key risk mitigation mechanism to deliver its legislative responsibilities.

My apologies if I have misunderstood some information in the risk assessment but there is a significant risk to public confidence and improved government transparency around water management which the presentation and coherence of the risk assessment information has not considered.

4.1.1 Identification of Planned Environmental Water

For the purposes of the necessary public exhibition to develop accredited WRPs it is unsatisfactory to place such draft documents on exhibition containing Minister's Notes stating proposed further amendments.

In particular the proposed options for increased take of supplementary water compromise the beneficial effects of supplementary water which the WSP should be properly identifying.

The "near-natural" flow characteristics of supplementary water are environmentally important throughout the basin with its complex ecological interconnectivity across water sources and between WRPAs. Barwon-Darling connectivity is critically dependent on Namoi waters reaching it. Supplementary flows are critical for the protection of the billabongs of the Namoi floodplains which receive no significant inflows and severely impacted by weirs on the lower Namoi and the dams and weirs of the Upper Namoi.

The protection of environmental water in the Lower Namoi floodplains must be paramount in the WSP rules but a confused exhibition process suggests government intent to make changes to limits on access to supplementary water post exhibition. Fact sheets indicate current sharing arrangements for supplementary flows in the N RegWSP as "….90% for the environment, and 10% for water users (90:10), between July and October each year, and 50% for the environment and 50% for water users (50:50) for the rest of the year."

It seems that a 50:50 sharing arrangement throughout the year was introduced as a four month trial period which ended 30 June 2019. When assessed the reduction in water kept in the Namoi was found to have had an adverse impact on the Lower Namoi environment.

It would seem to the broader community from what limited WSP auditing that has occurred that even with the 90:10 take regime the WSP was unable to implement the start/finish flow requirements at Narrabri during a supplementary flow event in late 2009. The options paper regards the changes to supplementary access rules does not adequately explain the reasons why the 90:10 rule was introduced and what drove the 50:50 trial.

It is stated that the 50:50 trial has had adverse environmental impact but provides no DPI accompanying report. The 90:10 sharing arrangement must remain to provide for the environmental health of the Lower Namoi and facilitate essential connectivity flows into the Barwon-Darling.

A continuation of the trial and changes to the 90:10 water use arrangements would not appear consistent with requirements in the WRPs and the objectives of Commonwealth laws. The risk assessment supporting the draft WRP indicated high/medium risk ratings for all river reaches in the Lower Namoi.

Part 4 of the WSPs reserves all water remaining above the LTAAEL and long-term average sustainable diversion limit for the environment. (It is noted that 16 (3) in Part 4 in N Reg WSP contains an omission in its accompanying note.)

The reservation of all water above the (LTAAEL) is the current and proposed future 10 year "critical mechanism" identified in the risk assessment. Yet the LTAAEL is a mechanism hotly contested. Whether the amount of the LTAAEL in the WSP is actually correct will hopefully be resolved with improved measuring and compliance and better science to model floodplain harvesting and runoff. It is probable that some of this extracted floodplain water is really water critical to ecosystem function that should have been always left in the river system.

It is limited in its use of rainfall data and skewed by a couple of extreme flood events. Regardless, the use of averages to underpin risk mitigation in such a dynamic, landscape diverse and complex catchment as the Murray-Darling river system needs cautious application as an effective risk mitigation mechanism. Significant reporting and compliance problems have been identified with the LTAAEL.

A changing climate is already skewing many so called "averages" across social and economic sectors. The impacts of a changing climate are well researched in the Murray-Darling basin and include identification of significant uncertainty of the some predicted impacts.

To then underpin risk management primarily to the LTAAEL is not an assurance to the general public that environmental water is properly identified and protected in the WSPs.

The protection of the right of environmental water to flow a complete passage of the basin to the ocean has been one of the most contentious aspects of NSW water policy. Improved management and protection of environmental water is at the core of community concerns and stronger rules in the three WSPs are imperative to mitigate further ecological collapse. The protection of this "right of passage" is fundamental to NSW government responsibilities in water use and management under State and Commonwealth legislation. All WSPs need to contain stronger rules to properly identify environmental water and properly support the draft WRP.

4.1.2 Register of Held Environmental Water

The Register of Held Environmental water will only be as good as the standards in measurement of actual environmental water in in NSW. In the absence of real time monitoring, best science regards floodplain run off and protections via strong WSP rules it may not be a register of "real" water for the environment.

4.2 Priority Environmental assets and priority ecosystem functions

Risk mitigation in the draft WRP is compromised by the "unbalance" in the stated objectives of the WSP, weak rules in the WSPs and the use of the unreliable LTAAEL as an average as the primary critical mechanism for risk mitigation.

Critical documents (LTWP and WQMP) are mentioned mostly as notes in the WSPs rather than intrinsically linked to the WSPs via the identification of firm targets for monitoring and review. Target ecological populations and processes in the WSPs are not linked to those sites identified in the LTWP nor is monitoring clearly linked to the MERP for all three WSPs.

Well defined targets are critical to robust monitoring of progress and should be clearly expressed. Language as quoted below from the WSPs is very confusing for the broader community concerned to see sustainable use of basin water managed via the State's water sharing arrangements:

"This Part describes broad objectives, which are the long term outcomes of this Plan and are not directly measured but evaluated by considering the cumulative achievement of the associated targeted objectives. Targeted objectives described in the Part are specific outcomes that can be achieved by the strategies in this Plan and can be directly measured so that success or failure to achieve the objective can be quantified."

The direct linkage of the targets and objectives within the LTWP and improved reference to this document would significantly strengthen the draft WRP and supporting WSPs. Added to these ill defined linkages is the use of weak language such as "broad objective", "may include", "may be managed", "where possible" etc in all WSPs.

This weakness is confounded by inconsistency between plans. For example different dictionaries are attached between WSPs; low flow macroinvertebrates are not targeted ecological populations in the Regulated WSP.

The draft WRP appears to fail in any consideration of the need to protect Lake Goran, which is the largest wetland in the Namoi catchment and a wetland of national significance. It seems ludicrous for the draft WRP to dismiss it as "independent of the river system" but recognise it as an unregulated water source. The LTWP identifies it as a priority environmental asset with a substantially high number of water-dependent bird species and 12 species of native fish.

4.3 Planning for environmental water

Whilst there seem triggers in the LTWP for changes occurring to WRP during the accreditation process it remains unclear how the LTWP itself connects back meaningfully into the draft WRP to achieve improved environmental outcomes.

As stated above, there are weak rules in the WSPs to protect the rights of environmental water. There are serious flaws in the objectives of the WSPs which compromise the management planning and protection of environmental water and targeted ecological populations and processes in the draft WRP.

Overall, the planning for environmental water appears as a skewed process. The objectives in the LTWP should be given full effect in the WSPs so as to clearly define targets and monitor progress meaningfully.

4.4 Environmental watering between connected water resources

It is curious that the blue box text "cherry picks" Clause 48 re the limits of access to supplementary flow events regards Barwon-Darling and Walgett flow targets but fails to mention the Minister's proposed changes to the current access limit which will remove the amount of environmental water in the Lower Namoi.

Improvements to pump monitoring and compliance should facilitate the effective "shepherding" of environmental water along the complete river system to where it is needed along the way and into the ocean. There are multiple benefits for the environment in this protected right of passage.

Shepherding of water is defined in the Unregulated WSP and listed as a possible future amendment to the WSP. However, the definition of shepherding includes both for environmental water and downstream extraction. Use of shepherding for downstream extraction is contrary to the intent of the MDBP. Whilst the rights of environmental water need full protection and shepherding is one available method to achieve this, the use of shepherded water for downstream extraction creates very serious conflicts in sustainable use of water in the basin.

WRPs underpinned by WSPs with strong rules on environmental water protection which are properly monitored and enforced throughout the basin is imperative for continuous whole of river connectivity. The NSW government needs to work fast in meaningful collaboration with the MDBA to get these strong rules in place and facilitate accreditation of the draft WRP.

4.5 No net reduction in protection of PEW

I have minimal confidence in the adequacy of the supporting WSPs to protect planned environmental water to ensure improved and sustainable basin health as required in the WRPs within the MDBP.

As mentioned above the rules in the WSPs are weak and unaligned to well defined targets aligned with the LTWP. To justify "no net reduction" in protection of environmental water based on what was happening in NSW water management pre MDBP is poor policy. It may be that NSW was not properly managing water use according to its own State legislation in 2012 - there has been no transparent auditing process evident since WSPs were first introduced in 2004 to improve otherwise except for the more recent scathing review of the Barwon-Darling WSP.

Proposed changes to supplementary licence are not mentioned in this section but I feel relaxed limits will also reduce the quantity of planned environmental water available in the Lower Darling. This represents reduced protection of PEW.

I also have serious concerns with two proposed rule changes both of which seem inconsistent with intent of State and Commonwealth legislative regimes to achieve sustainable water use and management.

Firstly, a proposed increase in water allocation for a regulated (general security) access licence: Increasing the Upper Namoi water allocations seems contrary to the intent of the MDBP to improve connectivity across the basin especially during low flow periods expected to be more frequent with a changing climate. The 50% carryover rule in the Upper Namoi will compound any adverse impacts arising from this increase in water allocations.

It seems a "sleight of hand" to cap trade between the Upper and Lower Namoi Regulated water sources at the entitlement level of the Upper Namoi water source at the commencement of the remade plan. Presumably this will be a level reflecting the proposed increased allocations and the 50% carryover. This cap seems justified by DPI as a mechanism to protect Upper Namoi user security and a potential increase in take by Upper Namoi which could result in compliance issues.

If I am understanding this correctly more available water in the Upper Namoi for trade will facilitate a potential equal increase in water from the Lower Namoi able to be traded back. There is no indication of what potential adverse impacts this trade arrangement will have on the complex Lower Namoi water sources nor is it justified how this means there is "no net change" in the protection of planned environmental water.

This needs clarification for the general community as it appears to me that this will reduce protection of PEW.

Secondly, the proposed changes for Cockburn River: It is my understanding that a project was undertaken to develop an improved understanding of the environmental water requirements of Groundwater Dependent Ecosystems (GDE) in the Cockburn River in the Peel Valley. It is unclear whether the results of this scientific research informed decision making regards the proposed rule change.

The high connectivity between surface & groundwater in the Cockburn River has implications in effective protection of native fish pool habitat and refuge holes but whether this rule change ensure water stays in the Cockburn River for fish requirements is unclear especially when considered in the context of proposed restructure of WSPs in the Peel Valley which removes groundwater sources from the current Peel Valley WSP.

Any changes to Cease to Pump rules for the Cockburn River should be consistent with the management strategies identified in the LTWP. It is unclear from the exhibited documents whether this is the case or not.

4.6 Cultural flows and retention of current level of protection of Aboriginal values and uses

Mechanisms to ensure reliable access to cultural flows for First Nations needs a significantly increased focus in the draft WRP.

The draft WRP would seem in breach of current legislation regards the protection of rights of access to cultural flows. The weak rules in the WSPs currently limit intent of the MDBP to achieve continuous whole of river connectivity. This would seem important for access to cultural flows as well as healthy ecological river function.

4.7 Groundwater management

The restructure of WSPs in the Peel Valley needs to ensure that protection of groundwater sources is not compromised in the new arrangements. Background documents developed to inform the current Peel Valley WSP identified "The alluvial groundwater and surface water in the Peel Regulated River and some of its major unregulated tributaries are intricately linked."

Significant hydrological connections has also been identified between other ground water resource units in the Namoi Alluvium WRPA. It is stated that potential risks to Namoi Surface water sources will be managed via the risk assessment supporting the Namoi Alluvium WRPA.

As stated above some of these now restructured WSPs have not been audited or rigorously reviewed. The audit of the Peel Valley alluvial groundwater sources is currently being undertaken by the NRC as it reviews the Peel Valley WSP.

Given this restructure of mostly unaudited WSPs will underpin the draft WRP and operate for around ten years before the plans are reviewed for their effectiveness in meeting legislative objectives the precautionary principle should guide water sharing arrangements.

NSW has entered an extreme drought less than ten years after the millennium drought. Increased use of groundwater accumulated over hundreds of years will drawdown further on ground water sources and impact aquifer storages and integrity. It is unlikely the pace of recharge will match this increased demand in future drought times which will be more frequent and extreme based on future climate predictions.

Risks to both groundwater and surface water must be managed to take account of cumulative impacts and interconnectivity. Given the history of over extraction in the Namoi Valley risk mitigation based on the LTAAEL and a principle of "no growth is allowed above the current level of pumping" may not be adequate to protect groundwater resources for future generations.

I have no confidence that the draft WRP is adequate to protect important hydrological connections and complex ecological processes within and across the basin. I am not reassured by statements such as that below which are included for the purposes of accreditation in the blue boxes:
"It was not considered necessary to include rules to ensure the operation of the WRP does not compromise the productive base of groundwater or environmental outcomes relating to groundwater. This is because this WRP applies to surface water resources, and rules to manage surface water take would not be effective in protecting the structural integrity of aquifers, maintaining hydraulic relationships and properties between surface water and groundwater, or preventing groundwater quality degradation. These matters are better addressed in WRPs relating to groundwater."

5.1.3 Trade between groundwater and surface water 5.1.4 Groundwater trade

Given the past demonstrated interconnectivity between water sources in the Namoi Valley and important knowledge gaps eg unmodelled hydrology of Lake Goran due to insufficient data it is arguable that "trade" of some sort will occur but risk mitigation will not occur due to inadequate WRP and supporting WSPs.

5.2.1 Establishing the initial SDL 5.3 Determining available water - rules for take 5.4 Assessing compliance with the SDL and APT 5.5.1 Measuring and estimating 5.6 Annual permitted take

Resolution of these four sections is critical for accreditation of the draft WRP and progress in the meaningful implementation of the MDBP. The lack of information provided in the draft WRP is disappointing to the community concerned to see progress but typifies NSW's tardy approach since 2012.

These sections have formed part of the ongoing discussion arising from this February's BIA between NSW and the MDBA. As at 4 July most of the ten actions NSW had agreed to in the BIA had not been completed satisfactorily. In some cases with serious implications for the important accreditation of the draft WRP eg the method NSW proposed for SDL compliance would needed improvement as it was "potentially inconsistent with the Basin Plan."

All of the matters within these sections of the draft WRP are fundamental to a robust and accredited WRP so it is hard to comprehend that an adequate consultation process is being undertaken when this information is not available for public comment.

The MDBA has urged NSW allocate increased resourcing of these important actions necessary to realise the vision of the MDBP for all Australians.

5.7 Interception activities

The draft WRP states that with the exception of floodplain harvesting no types of interception activities (runoff dams, commercial plantations, mining activities) were found to have a significant impact on water resources.

The announcement that Dungown Dam was to be increased in size from six to 22 GL at the cost of around $500 million was made a couple of weeks ago. This means an additional 16 GL will be removed as unregulated water from users within P Reg WSP and downstream river systems with ongoing environmental impacts longer term.

Should/when the dam fills, (in the absence of climate change impacts in government strategic planning it will be empty more likely than full similar to other dams across NSW ten years after the millennium drought) the additional 16 GL regulated water must be factored into the water sharing arrangements supporting the draft WRP and the capacity of the WRP to meet environmental targets.

The risk assessment supporting the draft WRP dismissed the medium risk to full bank/overbank flows as Not applicable/tolerable since water from tributaries such as Dungowan were unable to supplement PEW and HEW in Chaffey due to "third party impacts", presumably irrigation landuse downstream.

It needs to be modelled and assessed whether, with less environmental water flowing down the Dungowan Creek from a dam increased by 270%, whether there are consequent changes in the risk assessment. It may be that the current medium risks at Peel below Chaffey shift to high like many other sections of the Namoi Valley.

The potential range of impacts on water sharing arrangements and environment targets in the draft WRP must be fully considered. This would seem especially important given government intent to "sideline" the usual environmental assessment and planning process required for major infrastructure in the approval of the Dungowan Dam extension and associated works.

For dams and floodplain harvesting this assessment of no potential for significant impact seems based on an assumption rather an actual measured amount of water take. Use of estimates introduces an uncertainty. Interception activities could increase with subsequent risk to water resources. The risk assessment for water interception farm dams relates to surface water only and excludes assessment to groundwater sources despite demonstrated connectivity in a number of water sources in the Namoi Valley.

For the purposes of accreditation it would seem necessary for the draft WRP to demonstrate how dam growth is to be monitored to identify early any increase in potential risks to water resources.

A 2006 Government Gazette notice re dams and floodplain harvesting is mentioned a number of times in the draft WRP. The relevance of this document to the accreditation of the draft WRP under the MDBP is unclear and unexplained. Its intent may be inconsistent with the intent of the Commonwealth MDBP.

I find statements such as "Floodplain harvesting can only affect medium to high flows (i.e. overbank flows) and there is no pathway for lower flows to be impacted and thus is considered to be 'nil' risk." as inadequate in risk assessment of "impounded" floodplain water. Especially as it seems farm dams do not include floodplain harvesting dams. There is need for clarification of the status of harvested water kept in a harvesting dam and how this potentially impacts flow classes.

There is a presumption in the risk assessment that the *Floodplain Harvesting Policy and Healthy Floodplains Projects* (FHP) will mitigate the identified high risk of floodplain harvesting on water available for the environment as "tolerable". The importance of this policy development for overland flows for river health, wetland and floodplain needs and downstream users' water supply entitlements is well recognised.

However, government has delayed taking action on floodplain harvesting for many years.

Even as recently as June the MDBA expressed concerns at the delay in this important project and whether "improved information will be available on floodplain harvesting limits and take in time for WRP submission".

It is unclear to the community whether the FHP does meet the requirements of the MDBP. Reference in the draft WRP indicates implementation of the FHP "is expected to happen during stages 4 and 5 of the Floodplain Harvesting Policy implementation." but it is difficult to locate what is meant by stages 4 and 5 from the DPI website.

Further it is not properly explained why floodplain harvesting in the Peel Valley is not considered for accreditation. The risk assessment did not seem to differentiate Peel Valley from Namoi Valley.

The recent MDBP report into the monitoring of first flush flows along the Namoi River suggests that interception by farm dams and floodplain harvesting is having significant impact on the hydrology of the Namoi

Imagery where cloud cover affected reliability in identification of water storage was excluded and the layer did not capture dams built since 2015. Only around a third of large storages was captured in the satellite monitoring which did not include water capture from smaller dams and landscape modification on floodplain area.

Even with these review limitations, the monitoring review identified 29 properties needing investigation of why their water storage had increased during the first flush flow embargo with four considered a higher priority for investigation. It was concluded that even with limitations on storage depth information, interception activity was affecting the quantity of water reaching the downstream environment and the communities that depend on healthy river function.

The MDBA concluded that temporary flow extraction embargos on first flush water announced by ministerial order did not adequately protect the needs of the basin. First flush water was needed throughout the basin waterways to ensure the resilience of the basin during low flow periods. The ecological needs of low flows must be paramount.

The timing of an embargo order is often after first flush water take has been taken as raised water levels pass the cease to pump thresholds and water critical to ecosystem function is extracted prior to the embargo. The MDBA supported the NRC in its identification that more protection for first flush flows is necessary in the rules of the Barwon-Darling WSP.

Given the results of the recent MDBA monitoring report and the important connectivity value of the Namoi to the Barwon-Darling a stronger set of first flush and protection of low flow rules is required in the WSPs supporting this draft WRP.

Risk from coal mining is another interception activity which is not adequately addressed in the draft WRP. The risk assessment appears to dismiss coal mining risk to water resource since, as at a regional level, changes in Namoi stream flow is considered minimal at less than 1%.

However, increases in zero-flow days were identified for unregulated water in Bluevale and Maules Creeks which would potentially impact water-dependent floodplain and lowland riverine landscapes. Mean annual flows in these two creeks were predicted to reduce by 5%. It is unclear why risks to the water resources of these two creeks from coal mining is not identified in the draft WRP.

Recent media reports indicate that coal mining is drawing down illegally on both surface and ground water resources within the Namoi WRPA. Regulatory action is currently being taken. The draft WRP needs to clearly identify this risk to water resource availability which affects the environment and other water users.

The transfer of high security regulated licences to such unregulated streams will facilitate an increase in rates of interception by both mines and plantations forests.

Further it is unsatisfactory that impacts of coal mining on water quality could not be assessed and "remains a knowledge gap." As stated throughout this submission where there are knowledge gaps the precautionary principle should be applied in the risk mitigation approach taken by the draft WRP.

5.8 Measures in response to extreme events

It is noted that the wrong link is included in the draft WRP to Schedule G Namoi Surface Water Resource Plan Incident Response Guide (IRG) placed on exhibition though it is included on the draft WRP website information.

The inevitability of "extreme events" occurring more regularly and intensely within the Namoi Valley due to the impacts of a changing climate is not fully reflected in the draft WRP. The S&IP foreshadowed this situation: "However, more severe droughts are possible, and unanticipated water quality events or system failures could occur. The current regulated river WSPs are unlikely to meet the requirements of the Basin Plan during extreme events."

The draft WRP and its IRG do not appear to have taken account of this important issue. It is concerning that water use during an "extreme event" will prioritise water take for basic landholder rights and take for domestic or essential town services, over the needs and protection of water sources and dependent ecosystems. This contradicts the normal priority order that identifies highest priority to both water source and dependent ecosystems and the taking of water by persons exercising basic landholder rights. This normal priority seems more aligned with the objectives of the Basin Plan.

Such a reprioritisation seems counter intuitive as a sensible management approach to "extreme event" situations which are reliably predicted to be more regular and intense during the ten year operation of the draft WRP. It is arguable whether ecosystem maintenance can even be separated in priority from the needs of basic landholder access to clean adequate water.

Many communities across the basin now only have access to poor quality drinking water, if they have access at all. This reduced quality is largely due to associated ecosystem collapse as a consequence of chronic over extraction of water and amplified during drought conditions.

“Extreme events” should not trigger abandonment of water for dependent ecosystems and further loss in resilience of ecosystems and vegetation communities such as river red gums. Further loss of river red gums will have dire consequences for water quality as erosion worsens.

It is unclear why flood situations are not considered within the context of the IRG. Extreme events such as a flood event may be isolated and also be more frequent with a changing climate. How these are managed will have impact on water quantity and quality across the whole basin and some account of management should be stated in the draft WRP to ensure consistency with basin wide objectives.

“Extreme events” should consider scenarios where reduced vegetation cover either due to land clearing, bushfires, dying river red gums etc will exacerbate erosion and soil loss. Increases in the number of river chokes will exacerbate pollution risks and make connectivity even more difficult to achieve causing significant ecological devastation and disruption to fish habitat requirements.

As mentioned above audits of all WSPs across NSW has been limited and tardy. The Peel Valley currently being reviewed by the NRC. The auditing that has occurred of the Namoi WSPs suggest serious problems with the capacity of these mostly unchanged WSPs to be effective in extreme event situations.

The response by DPI - Water seems to focus on licence suspension/flexibility, borrow of carryover or environmental water, non application of accounting for transmission losses etc with little regard as to whether the current levels of unsustainable water “over-extraction” permitted within the WSPs are making the inevitable impacts of “extreme events” more extreme.

Reducing the amount of water extraction able to occur within the Namoi Valley appears as a viable risk management option in mitigating the impact of extreme event situations on the environment and communities. Reliance on ministerial intervention is not a suitable management option as often decisions in the best interests of the ecological health of the basin are “polluted” by politics and lobby interests.

Nor is reliance on groundwater during drought times. The NRC recognized the region has having one of the highest levels of groundwater extraction in the MDB and the highest level of groundwater development. The interconnection between surface and groundwater during extreme events needs to be fully considered especially with Namoi Alluvium managed in a different WRPA.

Section 3.2.2 and Clauses in the Unregulated WSPs relate to management responses for unregulated rivers. It is unclear what is the meaningful definition of Very Low Flow Class in terms of ecological processes. Whilst linkage to a gauge flow provides a practical measure to define each Flow Class it is unclear to the average person concerned about improved basin health overall how the gauge level is linked to ecological outcomes via strong linkages in the LTWP. This needs to be better defined in the draft WRP.

Any periods of suspension of the WRP must take account of the need to protect environmental water.

6. Water Quality Management Re 10.29- 10.35 (pgs 85-86)

It is noted that the wrong link is included in the draft WRP to Schedule H - Namoi Surface Water Resource Plan – Water Quality Management Plan (WQMP) placed on exhibition though it is included on the draft WRP website information.

Public confidence has been shattered in the way the State government has managed the Darling River. The public has been disturbed and angry by photos of fish kills and stagnant ponds and media coverage of damning independent reviews of plans and policies. Degraded water can kill aquatic organisms, compromises or destroys Aboriginal cultural and spiritual uses of water, increases water treatment costs and has associated public health risks.

The purpose of the WQMP is "to contribute to the sustainable and integrated management of water resources" in the Namoi and as such is a critical document to restore public confidence in how water quality is protected in the draft WRP.

Unfortunately it presents as continuation of the inherent bias throughout the draft WRP to subvert the protection of the environment as the necessary priority. Statements in the WQMP not especially useful in clarifying NSW's approach to water quality management and restoring public confidence:

"*The Assessment of Murray-Darling Basin water quality targets in NSW (2015) by NSW Department of Primary Industries Water identified targets in some zones and zone boundaries as being inappropriate.* ***Perceived poor water quality at a monitoring site may be due to an inappropriate target, rather than excessive pollutants****. In response to these findings, NSW Department of Planning, Industry and Environment will develop appropriate regional water quality guidelines by 2020 for inclusion in water quality management plans*."

The bolded text could be interpreted by the general public as NSW revising its targets to avoid taking effective action to reduce pollution through stronger revised rules in WSPs.

High and medium risks to water quality from "out of range" turbidity, total nitrogen and phosphorus levels, dissolved oxygen and pH are all stated to be unable to be managed within the "scope of water planning". If I am understanding this correctly, it seems ludicrous that State and Commonwealth water laws are out of "scope of water planning" to manage this pollution risk. Keeping more water in the river via reduced water extraction amounts to irrigators in the WSPs could be a good first step. Improved connectivity to downstream WRPAs via a strong WRP is a critical next step.

The range of knowledge gaps is disappointing with identified information gaps about toxicants, pesticides and connectivity for priority carbon and nutrient pathways.

It is unclear why national guidelines are not utilized. NSW appears to have rejected

use of the Guideline document 4: Australian and New Zealand Guidelines for fresh and marine water quality 2000 because it is under revision. These are the guidelines referenced in the Basin Plan. All guidelines are revised from time to time to take account of new information and methodologies.

Consistent application of national guidelines for water quality would seem sensible for the effective implementation of a water plan that crosses a large area of Australia and under multiple jurisdictions

7.1 Information relating to measuring take

The implementation of the NSW Metering Policy will improve understanding of water extracted within the WRPA. The current information gap seems to be in the unregulated rivers but improved technology and compliance may also indicate need for changes in allowances.

The improvements in measurement may demonstrate a growth in diversions that exceeds the SDL. The draft WSP needs to contain clear rules to control any growth in diversions should this eventuate so as to ensure SDL compliance.

7.2 Monitoring water resources

It is noted that the wrong link is included in the draft WRP to Schedule J (Namoi Surface Water Resource Plan – Monitoring, Evaluation and Reporting Plan) (MERP) placed on exhibition though it is included on the draft WRP website information.

Similarly to comments on Water Quality above, any monitoring of water resources in NSW should be an approach that is consistent and collaborative basin wide.

8.1 Best available information and methods

Public confidence in the way NSW has managed water in the Murray-Darling Basin is mostly eroded. To restore public confidence, especially as the predicted, dynamic and somewhat unknown impacts of a changing climate become more evident to the community will require considerable effort on the part of government.

Government must demonstrate transparently that it is in fact relying on the best available information and methods. In the recent progress report of the BIA implementation commitment was made by NSW to amend estimates of Baseline Diversion Limits for each SDL resource unit based on best available information. The community supports immediate and urgent attention to the use of the best available science informing all aspects of NSW commitment activities in implementation of the MDBP.

This information should be made publicly available on the Confluence portal.

Your form has a new entry. Here are all the answers.

Email address	[redacted]
Name of respondent	[redacted]
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Individual
Proposed changes to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016	
Do you have comments on the supplementary flow sharing alternative options presented in the Supplementary Flow Sharing Rule – Options Paper?	Supplementary flow must reflect rainfall, drought and availability of water. There should be no access by irregators or mines to supplementary water unless all environmental and social (eg domenstic water) needs are met down the entire Darling and Murray rivers to the end. All water licences should be subject to rainfall, decreasing automatically in times of crought.
Do you have any comments on the proposed change to increase the maximum volume of water that may be held in a water allocation account in the Upper Namoi at any time be increased to 1.5 ML per unit of share component specified on the respective access licence?	Again, such a decision would decrease the overall health of the river system so I reject this proposal
Do you have any comments on the proposed change to restrict water trading from Lower Namoi to Upper Namoi due to different reliability of	As I understand it, such a decision would again would have a negative effect on the overall environmental flow of the river. Water is probably Australia's most precious commodity, bringing life to animals, people and plants. We need to be increasing river flow and making very hard decisions about what to prioritise. Mining should be lowest priority.

these sources?	
Do you have any comments on the proposed amendments to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016?	I strongly oppose the proposal to transfer high security licences to low security because this again have will have a negative impact on storage and river flow.
Proposed changes the Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010	
Do you have any comments on the proposed amendments to the Water Sharing Plan for the Peel Regulated River Water Source 2020?	Low water flows must be protected across all unregulated water sources whenever water levels reach below 80% .
Proposed changes to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012	
Do you have any comments on the proposed change to allow limited water trading between the unregulated water sources within the Namoi and Peel WSP area where third party and environmental impacts can be quantified and deemed acceptable?	Such changes would need to take into account differences depending on availability of water. We need to build into plans an awareness that droughts may be more frequent and more devastating and so all agreements need clauses that come into effect as water levels drop.
Response to chapter 4: Environmental water, cultural flows and sustainable management	
Do you have any comments on the protection of environmental water?	Protection of environmental water is essential but because of the necessity to protect the our fragile Australian environment, flora and fauna but also because this is an indication of how seriously we value water and are consequently willing and able to prioritise its use in terms of

	our future.
Do you have any comments on cultural connections to surface water and the protection of Indigenous values and uses?	Of course, we must ensure that entitlements throughout the river systems, recognise the importance of ensuring adequate water to indigenous communities.
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about the opportunity to make a submission?	Social media
Additional Information	
Please tick the relevant boxes	I consent to my “submission” being published on the department’s website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in the submission will be published.

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Monday 18 November 2019

Comments on Draft Namoi Surface Water Resource Plan

The Inland Rivers Network ("IRN") is a coalition of environment groups and individuals that has been advocating for healthy rivers, wetlands and groundwater in the Murray-Darling Basin since 1991.

IRN welcomes the opportunity to provide comments on the Draft Namoi Surface Water Resource Plan (draft WRP).

Introduction

IRN submitted substantial comments to the Status and Issues Paper on the Namoi Surface Water Source released in 2017.

Key aquatic ecological assets in the Namoi include high fish diversity and river reaches that provide vital habitat for native water-dependent species by supporting their dispersal, migration and movement; lower Namoi anabranch and floodplain billabong wetlands downstream of Narrabri; in-stream pools and low flow channel refuges that support local and migratory species and riparian and in-channel vegetation.

We raised the issue of significant risks to key environmental assets and ecological function.

These include medium to high risks to ecological values on the regulated river system arising from the take of water and regulation of flows.

There are locations where turbidity, nutrients, pH and dissolved oxygen results are outside of target ranges, and risk from thermal pollution and blue-green algae blooms.

Key environmental assets will be at risk under median and dry climate change scenarios.

The draft WRP does not mitigate these key risks. The NSW Government planning principle to minimise change in Water Sharing Plans (WSPs) to provide certainty for water users places the health of the river system at continued high risk and causes failure to meet the objects of the Basin Plan.

The management of floodplain harvesting is a key issue. We note that the first Namoi Regulated WSP calculated 21 GL of floodplain harvesting extraction with an additional 56 GL on farm harvesting not recorded as take.[1] The current assessment of this water take identifies a much higher level of extraction of overland flows in this catchment.

We also note that the replacement WSPs included in the draft WRP provide no volumes for the extraction of flood flows from the Namoi floodplain and that an amendment clause has been included.

This is an important issue due to the impact on significant ecological values in the WRP area and the high connectivity with the Barwon-Darling River. We are concerned that the Healthy Floodplains Project does not include a rigorous assessment of the cumulative downstream environmental, social and economic impacts of floodplain harvesting.

IRN strongly opposes the proposal to change the supplementary access rule in the Lower Namoi. This will cause a net reduction in the protection of Planned Environmental Water (PEW). IRN also does not support the proposed 50% increase in the Upper Namoi water allocation account. This will result in an increase in water use during median and dry climate scenarios.

We also strongly oppose the proposal to transfer high security licences from the regulated system to unregulated water sources.

IRN supports the formation of an Environmental Watering Advisory Group (EWAG). This must be included as a mandatory requirement in the draft WRP with its membership clearly identified.

EWAGS have been successful in other river systems by providing local knowledge working together with key government agencies including Fisheries, environmental water holders, CEWO, DPIE-Water and Water NSW.

We do not support current arrangements whereby available water determinations are based on the worst period of low inflows into the water source, as identified in flow information held by the Department before 1 July 2004 for the Namoi regulated and 1 July 2010 for the Peel regulated. This must be amended to take in the current, more severe period of low inflows.

The lack of modelling inputs using the most recent worst drought of record inflows results in over allocation of available water and increases the risk of poor management of extreme events, as is being experienced in the draft WRP area at this point in time.

This has an impact on the management of risk which is identified as high for many of the criteria, especially for environmental water requirements.

[1] NSW Parliament, 15 May 2018. Question and Answers Paper No. 181, Qu 7933 Floodplain Harvesting Extractions

Risk Assessment

The risk assessment for the draft WRP identifies an alarmingly high level of risk to the availability of environmental water and capacity to meet environmental watering requirements in the Namoi Surface Water Source. There is also high risk to water quality across the water source.

There are a number of not tolerable risks that will not be mitigated. This is unacceptable and possibly not lawful under the Basin Plan.

We also note that many high risks are regarded as tolerable because the ability to mitigate the likelihood is low. This is a failure of the WRP process.

The NSW Government position to prioritise third party impacts with bias towards water user certainty through minimal changes to rules in WSPs has caused a failure in the mitigation and management of risk to the health of this major water source. There is a failure in the process to recognise that poor river health has significant impacts on the achievement of the objectives of the Basin Plan and within the WSPs.

There are economic, social and environmental impacts caused by a failure to mitigate risk to river health.

The NSW Government position stated in the risk assessment is that '*These risk results cannot be addressed during WRP development as NSW planning principles minimise change for WSPs within their initial ten year period to provide certainty for water users.'* This position causes the continuation of considerable high risk to river ecology, social and cultural values and long term economic viability.

In the Peel Regulated water source the current critical mechanisms for mitigating risk eg access to uncontrolled flows and release of the Environmental Water Allowance (EWA) are tied to general security available water determinations, rather than to the needs of the environment. A portion of the Peel EWA can be extracted therefore further increasing risk to the environment.

Likewise in the Namoi Regulated, the proposed change to the supplementary access rule will further increase risk to water available to the environment. The end of system flow rule, identified as a current critical mechanism, is tied to water levels in Keepit and Split Rock dams and confined to three winter months. These rules do not improve the risk to environmental assets and values in the Namoi water source.

There are a high number of not tolerable risks to water available to the environment in the Namoi unregulated water sources. This is particularly in regard to the protection of base flows, low flows and freshes. This risk must be addressed through changes to cease to pump rules and the protection of a portion of natural freshes with a minimum of the 80%ile in the unregulated Namoi and Peel WSP.

Overbank flows are of critical environmental value to replenish floodplain processes, facilitate native fish breeding and recharge groundwater sources.

IRN strongly objects to the risk to overbank flows being assessed as tolerable because of third party impacts. Naturally occurring overbank flows in the Namoi are frequently captured by

floodplain harvesting. We note that the risk from this interception activity is assessed as high in the regulated Namoi. This high risk is not tolerable and the Healthy Floodplains Project needs to include a rigorous assessment of downstream ecological impacts of floodplain harvesting to better manage and mitigate this high risk.

The important environmental function of overbank flows must be better protected and restored as required under Basin Plan objectives.

IRN does not support the assessment that the risk from climate change to water available for the environment in the Namoi water source is medium for median and dry scenarios with only moderate consequences.

We note that the risk to water users from a dry climate scenario has been assessed as high, particularly for general security licences in the Namoi and Peel.

The current severe drought in the Namoi has had a significant impact on environmental values and all water users. It is critical that water availability is assessed on the most recent drought of record so that over allocation does not occur.

IRN considers that the risk assessment for the Namoi water source is very poor and must be redone with due attention to the environmental objectives of the NSW *Water Management Act 2000* (WMA), Federal *Water Act 2007* and the Basin Plan.

Water Quality

We note that the management of all high and medium risks to water dependent ecosystems from poor water quality is referred to the Water Quality Management Plan (WQMP).

The WQMP aims to provide a framework to protect, enhance and restore water quality that is fit for purpose for a range of outcomes that:

- Fulfil First Nation peoples spiritual, cultural, customary and economic values
- Protect and improve ecological processes and healthy aquatic ecosystems
- Provide essential and recreational amenities for rural communities
- Assist agriculture and industry to be productive and profitable

These aims are greatly compromised through the NSW planning principle that protects water user certainty above all other considerations.

IRN does not consider that the WQMP adequately mitigates the identified medium and high risks of water quality degradation in the Namoi WRP area.

Appendix E of the WQMP identifies a number of strategic decisions options to mitigate high and medium water quality risks. One of these is to review the adequacy of WSP rules for flow dependent issues. The WQMP fails to do this.

We note that the key water quality objective, WQ1: Protect, maintain or enhance water quality to ensure it is fit for purpose, is to be managed entirely through the regulated and unregulated WSP. The emphasis on minimal change to the WSP rules in the draft WRP raises key concerns that the high and medium risks to water quality will not be adequately mitigated.

However, the proposed change to the supplementary access rule in the Lower Namoi and proposed increase in water availability in the Upper Namoi, will increase extraction opportunities and therefore, increase the risk of poor water quality.

The WQMP must examine the suitability of current WSP rules to provide improved outcomes for river health.

Appendix E also questions the appropriateness of Basin Plan water quality targets and suggests reassessing risk using revised, locally derived targets. IRN strongly objects to this approach within a WRP to be accredited under the Basin Plan.

We note that there are significant knowledge gaps in all areas for the following WQ objectives:
WQ7 Reduce the mobilisation of toxicants and pesticides.
WQ8 Reduce contamination from pathogens into water sources.
WQ9 Protect, maintain or enhance connectivity between water sources to support downstream processes including priority carbon and nutrient pathways

The WQMP fails to recommend a strategy to fill these knowledge gaps or measure the possible significant impacts on water quality in the Namoi water source.

We note that strategies to meet WQ9 include protecting tributary flows through cease to pump rules at low and zero flows, end of system target, supplementary access rules.

The risk assessment identifies that zero and low flows are at non tolerable risk in many Namoi unregulated systems, the end of system target is tied to water levels in the dams and the protection of supplementary flows in the Lower Namoi is under threat while also attached to water determinations in the Namoi system.

The NSW planning policy of maintaining security for water users greatly threatens the achievement of WQ9 in this water source.

There are numerous high and medium risks across most water quality targets that will not be adequately mitigated by the rules in WSPs or many of the strategies in the WQMP.

The issue of salinity risk in the Namoi water source is of interest with high salt stores in the Manilla, Upper Namoi and Peel Rivers contributing to salt load in the storages and tributary inflows. Tributaries to the Lower Namoi: Peel, Mooki and Coxs Creek can deliver salinity spikes. Reliance on dilution flows from the major storages may not be adequate in times of low water availability.

While the current risk to aquatic ecosystems is assessed as low at the Goangra gauge towards the end of the system, salinity management within the Namoi water source is critical for instream health and connectivity flows to the Barwon Darling.

Improved water quality management is a significant issue for the Namoi water source that has not been adequately addressed in the draft WRP.

Issues in WSPs

1. Environmental Objectives

In order to meet the requirements of the Basin Plan Cl 8 (10) in the Namoi and Peel regulated WSPs and Cl 10 (1) in the Namoi and Peel unregulated WSP should have the broad environmental to protect and restore the ecological condition of these water sources and their water-dependent ecosystems.

IRN considers that the rules in the WSP fail as critical mechanisms to manage the high level of risk to these water sources.

2. Regulated Upper and Lower Namoi

2.1 Failure to meet WSP environmental objectives and targets

Strategies to meet the targeted environmental objectives of the plan include reserving a portion of natural flows to partially mitigate alterations to natural flow regimes and maintain hydrological connectivity between the water source and riparian zones, wetlands and floodplains.

These strategies are considered to be provided by Cl 45, 48 and 55. IRN does not consider these rules to be adequate provision to achieve the targeted objectives. These rules are associated with extraction needs and water order delivery, rather than meeting environmental requirements.

1.1.1 Cl 45

Under Cl 45 the taking of uncontrolled flows in the Upper Namoi only protects flows below 100 ML on the Manilla River and below 200 ML on the Namoi River. This is an inadequate protection of natural flow regimes and achieves very little hydrological connectivity. This rule does not demonstrate a commitment to protecting a range of natural flow heights.

1.1.2 Cl 48

Under Cl 48 the Schedule 1 Barwon Darling flow targets are too restrictive and do not assist in protecting a first flush connectivity flow into the system.

The Schedule 1 flow targets at:
2 (1) provide basic rights access with no discernible environmental targets.
2 (2) provide for only two opportunities for fish passage across weirs during the main fish breeding season. This rule does not provide for the length of time between water years where fish passage flows have not been available.
2 (3) provide for one blue-green algal bloom suppression flow, not necessarily at a time when a bloom may be occurring in the Barwon-Darling.

The majority of rules in Cl 48 relate to protecting water availability under supplementary announcements rather than mitigating alterations to natural flow regimes and maintaining hydrological connectivity. The protected flow heights are associated with available water determinations rather than meeting environmental flow targets.

Only flows as low as 10 ML are protected in the Lower Namoi upstream of Walget Weir with no time limit for commencement of take when water availability is less than 90,000 ML

The flow targets in Tables A, B and C have little or no relationship to achieving targeted environmental objectives, particularly the Basin Watering Strategy objective to provide an overall 10% increase in flows to the Barwon-Darling from connected tributaries.

IRN strongly opposes the proposal to change Cl 48 (3) (b) to increase supplementary flow access above 10% between 1 July and 31 October.

This 90:10 rule share should be extended across the whole water year to better achieve the targeted environmental objectives of the WSP.

1.1.3 Cl 55

Minimum flow rules for an end of system flow to the Walget gauge are tied to the storage levels in Keepit and Split Rock dams.

These rule only protects a very low 75% of the natural 95%ile daily flows in winter months from June to August.

This rule is highly inadequate in that it reserves a very small portion of natural flows and does little to mitigate alterations to natural flow regimes or to maintain hydrological connectivity between the water source and riparian zones, wetlands and floodplains.

2.2 Definition of PEW

Cl 15 defines PEW as:

(a) the physical presence of water in the water sources,
(b) the long-term average annual commitment of water as planned environmental water.

The WMA also includes a definition of PEW as the water that is not committed after the commitments to basic landholder rights, and for sharing and extraction under any other rights, have been met.

All other WSPs have the three references defining PEW. No reason has been provided in supporting documents to explain why the definition of PEW is limited in this WSP.

2.3 Environmental Flow Rules

Cl 55 is the only environmental flow rule in the WSP. This is very limited and highly inadequate for delivering improved environmental outcomes in the water source, as outlined above. There are no allocations in the storages to provide environmental watering to the high value environmental assets supported by the Namoi water source.

We note that a volume of Held Environmental Water (HEW) is managed for environmental benefit in the water source and that this volume will increase to meet the Sustainable Diversion Limit (SDL) for the Namoi. However, the current HEW is in general security (GS) licences with limited availability. There have only been three deliveries of HEW since 2013.

This water can be extracted from the Gulligal and Wee Waa lagoons through rules in the unregulated WSP.

The dependency on the supplementary flow rules for providing some environmental benefit to the water source is significant and the only real source of PEW.

It is critical that the current rule to protect 90% of uncontrolled flows between 1 July and 31 October is not diminished. Any increase in supplementary access will cause a net reduction in the protection of PEW and therefore, will not meet the requirements of the Basin Plan.

3. **Regulated Peel**

IRN considers the Peel regulated water source to be vastly over allocated. The rules in the WSP have failed to address this issue. The rules for compliance with the Long Term Average Annual Extraction Limit (LTAAEL) are entirely inadequate and do not protect PEW in this water source.

3.1 Accounting for Growth in Use

Water management in the Peel accounts for 95% of growth in Tamworth water supply through the Lower Namoi LTAAEL. This fails to recognise the ongoing impacts of this growth on the health of the Peel River, on the protection of PEW and on other water users. The management of Tamworth water supply is a significant issue that is not being addressed in the draft WRP.

3.2 Failure to meet WSP environmental objectives and targets

Strategies to meet the targeted environmental objectives of the plan include reserving a portion of natural flows to partially mitigate alterations to natural flow regimes and maintain hydrological connectivity between the water source and riparian zones, wetlands and floodplains.

These strategies are considered to be provided by Cl 41, 48 and 49. IRN does not consider these rules to be adequate provision to achieve the targeted objectives. These rules are associated with extraction needs and water order delivery, rather than meeting environmental requirements.

3.2.1 Cl 41

The access to uncontrolled flows in the Peel is in lieu of licenced supplementary access rules. While the rule limits access to uncontrolled flows by 50% the flow heights protected from access are very low. The rule is also connected to water availability rather than to demonstrated environmental outcomes.

When GS availability is less than 0.35 units uncontrolled flows can be drawn down to a 5 M/day flow measured at the Carroll Gap gauge. When GS availability is above 0.35 units uncontrolled flows can be drawn down to 50 ML/day.

Access to uncontrolled flows should not be related to water availability. These flows are critical natural inflows to the regulated system and need to be better protected.

These flow heights do not achieve the targeted objectives of the WSP and should not be identified as achieving these under Cl 8.

Cl 41 (4) allows for extraction of EWA releases from Chaffey Dam as uncontrolled flows.

IRN considers this definition of released water to be entirely misleading. This subclause contradicts the definition of PEW and is a failure to meet the objects of the WMA.

IRN strongly objects to the taking of EWA. This subclause must be removed from the WSP. These rules do not achieve the targeted objectives of the WSP.

3.2.2 Cl 48

A minimum daily release of 3 ML/day from Chaffey Dam does not provide flow variability or any significant environmental benefits.

This low regulated flow is more likely to provide conveyance capacity for delivering basic rights flows and water orders.

This low regulated flow does not achieve the targeted environmental objectives of reserving a portion of natural flows to partially mitigate alterations to natural flow regimes and maintain hydrological connectivity between the water source and riparian zones, wetlands and floodplains.

3.2.3 Cl 49

This rule does not provide any security for the delivery of the EWA at a time when it will be most beneficial to environmental outcomes or protect its instream flows.

Subclause 49 (5) gives priority to water orders when the capacity to release all water demands from Chaffey Dam is insufficient.

This rule should be changed to allow a 50:50 share of release capacity.

Subclause 49 (7) permits access to EWA water as specified in Cl 41.

IRN strongly objects to this lack of protection for PEW. This subclause must be removed from the WSP.

3.3 Definition of PEW

Cl 15 defines PEW as:

(a) the physical presence of water in the water sources,
(b) the long-term average annual commitment of water as planned environmental water.

The WMA also includes a definition of PEW as the water that is not committed after the commitments to basic landholder rights, and for sharing and extraction under any other rights, have been met.

All other WSPs have the three references defining PEW. No reason has been provided in supporting documents to explain why the definition of PEW is limited in this WSP.

3.4 NRC Review

The Peel regulated WSP requires amendment provisions to allow for recommendations from the NRC review to be adopted.

4 Unregulated Namoi and Peel

4.1 Poor WSP strategy to meet environmental objectives and targets

IRN does not support Cl 10 (3) (c) that allows in-river and off-river pools, and significant identified lagoons to be pumped to less than full capacity. This will not assist in meeting the targeted environmental objectives particularly the protection and restoration of target ecological populations and water quality.

The definition of less than at full capacity for in river, off river pools and lagoons is very difficult to regulate. Pools are important drought refugia and must be protected.

This rule must be changed to cease to pump from in-river and off-river pools, and significant identified lagoons when there is no visible flow.

4.2 Failure to meet WSP environmental objectives and targets

Strategies to meet the targeted environmental objectives of the plan include reserving a portion of natural flows to partially mitigate alterations to natural flow regimes, restrict the take of water from in-river and off-river pools, and significant identified lagoons and restrict or prevent water supply work approvals on third order or higher streams in designated water sources.

These strategies are considered to be provided by flow classes established in Division 2 Part 8 and Cl 47 and 52. IRN does not consider these rules to be adequate provision to achieve the targeted objectives. These rules are associated with extraction needs rather than meeting environmental requirements.

4.2.1 Flow classes

Cl 46 Table B identifies the Very Low Flow and A class flow heights across the unregulated water sources.

Very Low Flow classes of ‘no visible flow’ and A class flows of ‘visible flow’ fail to achieve the protection of a portion of natural flows.

This also fails to meet the definition of PEW being ‘*the commitment of the physical presence of water in these water sources’.*

IRN strongly opposes that rules for the Peel unregulated system remain unchanged from the 2010 WSP. This is currently being reviewed by the NRC. There needs to be amendments

included in the WSP to allow for NRC recommendations to improve the management of the Peel unregulated system.

Very Low Flow classes should be at a minimum of 80%ile flows to achieve the targeted objectives of the WSP by protecting a portion of natural flows.

4.2.2 Cl 47

This rule does not achieve the targeted objective of the WSP because it has a significant number of exemptions.

IRN strongly opposes the exemption in association with an aquifer interference activity that is an approved EP&A Act development if there are no reasonably practicable measures the access licence holder can take to comply with the access rules under this clause.

The approval under the EP&A Act should take into account the rules of the WSP so that the environmental objectives are met, rather than providing an exemption in the rules that fails to meet the WSP objectives.

Water management plans in approved EP&A Act developments are difficult to regulate and cannot be assured to provide for the environmental needs of a water source.

This significant exemption must be removed from the WSP.

IRN does not support Cl 47 (4), (5) and (6) as outlined above. A cease to pump rule for pools, lagoons and lakes must be at no visible flow in the water source. Evaporation will continue to cause a drop in the level of these critical habitats. This should not be exacerbated by ongoing extraction that is difficult to regulate.

Gulligal and Wee Waa lagoons are very important environmental assets in the Namoi catchment. IRN strongly objects to any legal access to environmental water, especially HEW that has been delivered to these water bodies.

Cl 47 (6) that allows these lagoons to be pulled down to below 80% is not acceptable and will cause a failure to meet the environmental objectives of the WSP and the Basin Plan.

All environmental water must be protected from extraction in this water source.

4.2.3 Cl 52

IRN does not support the construction of in-river dams in any of these water sources.

These structures will impede the longitudinal connectivity within the water source. This is a key targeted environmental objective of the WSP.

Proposed WSP Rule Changes

1. Increase in the maximum volume held in a GS water allocation account in the Upper Namoi

IRN objects to the proposal to allow a 50 % increase in carry over in the Upper Namoi. This will cause a reduction in the net protection of PEW in this water source and on downstream water users in the Lower Namoi.

It will cause a growth in use and therefore threaten compliance with the LTAAEL.

The PEW report maintains that annual usage will remain capped at 100% per unit share. Therefore, it is difficult to understand the purpose of this rule change.

It seems that the intent of this rule is to benefit a small number of GS entitlement holders in the Upper Namoi. However, the long term implications have not been adequately considered.

This rule could result in an increase in water use during median and dry climate scenarios and impact on the PEW rules associated with storage volumes.

2. Supplementary flow access rule

As stated above, IRN strongly opposes any increase in access to the winter month supplementary flow share rule. It is imperative that 90% of natural flows into the Namoi regulated water source be protected from extraction. This is important to meet the WSP and Basin Plan environmental objectives. It is also critical for maintaining important connectivity flows to the Barwon-Darling.

IRN recommends that the 90:10 supplementary flow sharing rule be extended over the entire water year.

3. Cap on trade to Upper Namoi

IRN supports this rule change. Any increase take in the Upper Namoi impacts on storage levels and the rules for releasing PEW.

4. Trade between regulated and unregulated water sources

IRN strongly opposes the proposal to transfer high security regulated access licences to unregulated water sources.

This is an unsustainable approach to water management and should not be progressed.

Unregulated water sources have highly variable water access that must be taken into account when considering the approval of increased interception activities.

This is particularly relevant in a drying climate scenario.

This proposed rule change will impact on all other water users and the environmental health of the water sources. It will have significant environmental, social and economic impacts.

5. Formation of EWAG

IRN supports that an EWAG be established to assist decision-making on environmental water management in the Namoi water source.

The establishment of this advisory committee should be formalised through rules in the water sharing plan including the representative membership.

6. Compliance assessment advisory committees

IRN strongly objects to the role of compliance assessment being placed in the hands of Water NSW Customer Advisory Committees (CAGs). Both Water NSW and its customers have a major conflict of interest in the operation of water sharing plan rules.

Compliance assessment must be undertaken by a state-wide independent body such as the Natural Resources Access Regulator or the Natural Resources Commission. This will improve the transparency and trust in the process.

Other Key Issues:

1. Water availability determination

The regulated river WSPs must be changed so that the most recent drought of record is included in modelling used to determine water availability. The current definition that worst drought be defined as the worst period of inflows prior to 2004 for the Upper and Lower Namoi and 2010 for the Peel is a high risk approach to water management in the context of climate change.

The rules Cl 56 (1) and Cl 52 (1) respectively should be changed so that:

Maintenance of water supply
The period of lowest accumulated inflows to the water sources is identified by the most recent lowest inflow information held by the Department.

2. Compliance with LTAAEL

IRN strongly objects to 95% of the growth in use of Tamworth water supply being attributed to the Lower Namoi LTAAEL rather than to the Peel water source.

This accounting method masks the over allocation of the Peel water source and the environmental impacts of continued growth in use.

Chaffey Dam was raised to secure Tamworth water supply. The infrastructure was completed in 2016 in time to capture significant inflows and fill to the new water level. This increased volume has been used over a three year period and the dam is now very low. An announcement of an increase in the Dungowan Dam capacity will further decrease natural flow regimes in the Peel River system

Further increases in storage capacity has a high likelihood of increasing growth in use with high consequences to the health of the Peel water source.

3. Floodplain Harvesting (FPH)

IRN has been advocating for a full cumulative environmental impact assessment of all FPH extraction on downstream water users and environmental assets. The small to medium size overland flows captured by this extraction method have important ecological functions such as recharging groundwater systems, providing natural flows to wetlands, providing connectivity flows to connected rivers, in particular, the Barwon-Darling and returning nutrients and food sources to rivers.

IRN understands that the volume of FPH extracted from the Namoi catchment is far greater than predicted in the current WSPs.

For the draft WRP to meet requirements under the Basin Plan, the volume of FPH access licences to be granted must be obtained through a shared reduction of all other access licences, so that the current LTAAEL is maintained.

This will prevent a net reduction of PEW in the WRP area.

Conclusion

The direction of the draft WRP provides no confidence that the environmental assets in the Namoi system and connectivity with the Barwon River will benefit over time.

The high and intolerable risks to the environment and water quality will not be mitigated by the environmental flow rules in the WSPs and are at continued risk through NSW Govt policy.

IRN considers that the draft Namoi Surface Water WRP will not meet the objectives of the Basin Plan.

For more information please contact:

Bev Smiles
President
Inland Rivers Network
[redacted]

We are a small family operated irrigation farm from the Namoi Valley at Wee Waa and I write in regard to the Water Sharing Plan for this valley.

While I appreciate the decisions within any Water Sharing Plan (WSP) are difficult it is the process in reaching those decisions- the endless meetings, endless correspondence and consequent discussions that is utterly exhausting. Even when agreement is finally reached, we find the intent or even the content itself of the agreed policy is changed presumably because someone in a relevant department does not like the policy or the Federal Government have decided that because they are paying the money, they should have the final say. There is no better example of this than the change in the Floodplain Harvesting Policy to include Rainfall Runoff.

Why do we as irrigators continue to consult if that consultation is going to be undermined by third parties that override the democratic process using money or influence. We have a supplementary water allocation that is undermined by rules regarding when we can have access to that water and at what volumes, to the extent that it makes it almost impossible to pump the allocation. How can we trust a Department that does this? Where is the integrity? Where are the NSW Government Departments defending NSW interests?

I was a member of a small consultative committee set up in 2013 to help develop and implement the Floodplain Harvesting Policy (FPH). The committee only met twice and was then never called to meet again. Industry finally came to an agreement with the Department in 2018 and the Policy was partially implemented in the Gwydir Valley before it was halted for a long length of time. When it was finally deemed fit to start again Rainfall Runoff had become part of FPH. This represented a huge loss to irrigators and the community.

The cost of all this effort in monetary terms, time and energy was horrendous. It is this loss of faith in the process that is most galling- the time it takes, the cost and the fact it is rarely delivered as agreed anyway. It leaves us all with an overriding sense of disillusionment. All this is like the drought- it seems it will never end. The worst thing about bad Water Policy is that it takes years if ever to unwind whereas this drought, as hard as it is to believe at the moment, will end. It will end with rain (water) and that is when we will realize the full losses to the community of this Water Sharing Plan.

The draft public exhibition
regulation for the Water Sharing Plan for the Upper and Lower Namoi Regulated River Water Source 2020 needs substantial changes. Over 300 people attended meetings in Wee Waa, 150 in Narrabri and 80 in Gunnedah to let the department know **the draft plan is**
not acceptable in its current form.

The NSW Government must recognise and allow all valleys in NSW to access their legal take limits as set out in the existing Water Sharing plan as Long Term Average Annual Extraction (known as baseline diversion limit). These will transfer to the Sustainable diversion limit under the Basin Plan.

The Namoi Valley is well under these limits and as such a rule change to supplementary rules (allowing changed timing to access high flows) is proposed as a way to help the community be resilient to droughts or recovery faster from drought.

Option 2 should be
included in the new Water sharing plan rules. The department should fulfil their commitment to provide Ministers Pavey, Kean, Marshall Stokes and Deputy Premier Barilaro the full story on the benefits of the change. This should include socio economic assessment and how the change is a substantial benefit to businesses capacity to recover and be resilience to drought.

Regards

Richard Schwager

[redacted]

Dear Minister Pavey and DPI staff
I wish to make a submission on this DRAFT plan as both a resident of Wee Waa and an employee in the cotton industry.
I wish to submit the following:-
The draft public exhibition regulation for the Water Sharing Plan for the Upper and Lower Namoi Regulated River Water Source 2020 needs substantial changes. Over 300 people attended meetings in Wee Waa, 150 in Narrabri and 80 in Gunnedah to let the department know **the draft plan is not acceptable in its current form.**
The NSW Government must recognise and allow all valleys in NSW to access their legal take limits as set out in the existing Water Sharing plan as Long Term Average Annual Extraction (known as baseline diversion limit). These will transfer to the Sustainable diversion limit under the Basin Plan.
The Namoi Valley is well under these limits and as such a rule change to supplementary rules (allowing changed timing to access high flows) is proposed as a way to help the community be resilient to droughts or recover faster from drought.
Option 2 should be included in the new Water sharing plan rules. The department should fulfil their commitment to provide yourself, Minister Kean, Marshall Stokes and Deputy Premier Barilaro the full story on the benefits of the change. This should include socio economic assessment and how the change is a substantial benefit to businesses' capacity to recover and be resilient to drought, with very little or no impact on the environment.
Option 2 was developed by farmers and businesses in the Namoi with the help of an aquatic ecologist and modeller, and is a sensible and practical option that delivers outcomes for the environment and my community. This option provides increased protection for the environment, whilst also giving our community a chance to continue to be productive and have a future.
Many of the detailed rules in the plan have been changed, we request they revert back to the existing water sharing plan clauses. In this regard I support the Namoi Water detailed submission.
At the Wee Waa meeting the department confirmed the supplementary access rule in our plan is NOT planned environmental water. The department need to change the draft plan to remove supplementary access from the definition of planned environment water.
I do not support either permanent or temporary trade from the Peel into the Namoi if it has a negative impact on the Lower Namoi water licences and therefore my community.
Your department needs to remove all mention of the Long term environmental watering plan in the water sharing plan and monitoring plans. It was confirmed that this document is not a statutory document under NSW or Commonwealth Law and it's purpose should only be used to guide how held environmental water is used.
The Monitoring & Evaluation plan for Economic objectives must be finalised with community input.
The NSW Government and Department of Planning, Industry & Environment can achieve a positive outcome for our community if these changes are made to ensure the communities of the Namoi can have a sustainable future.
Thank you for your time.

John Fogarty
Gin Manager Wee Waa

Qld Cotton Corporation Pty Ltd

[redacted]
T +61 (2) 67 957 194 F +61 (2) 6795 7158
Queensland Cotton, PO BOX 66, Wee Waa NSW 2388
www.olamgroup.com

I ask that you add my name and submition to the mix when considering the water share of the Murray darling and specifically lake Keepit. Thank you.

The Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2020 (the Plan) fails to meet the broader community's needs and expectations. Many people in the Namoi community believe the Plan only meets the requirements of General Security Water Access Licence holders while ignoring the environmental, economic, social, recreational and cultural objectives of the wider community.

This was clearly expressed by all candidates in Tamworth and Barwon electorates at the NSW March election, the elected Member for Tamworth stated 'the system is broken – it's time to hit the Reset button'. Thousands signed a petition to express their dismay at the failure of the Plan as portrayed so graphically by Lake Keepit being drained to 0.3% of capacity. 'Never again' say the overwhelming majority of people of the Namoi valley.

A revised Plan should include:

1 A 10% reserve retained in Lake Keepit
2 A Stakeholder Advisory Panel that truly represents the entire community not just irrigators and government appointees
3 Current up-to-date climate data, including greater acknowledgement of the effect of climate change
4 The inclusion of Monitoring, Evaluation and Reporting (MER) plans for social, economic, cultural objectives as per Part 2 Vision, objectives, strategies and performance indicators, Clause (11)
5 Acknowledgement that a 10% reserve in Lake Keepit would provide an essential resource for firefighting (water scooping) aircraft.

Yours faithfully

Keith Garrett
[redacted]
[redacted]
Boat Captain & Commodore, Lake Keepit Sailing Club
[redacted]

Your form has a new entry. Here are all the answers.

Email address	lakekeepitsailing@gmail.com
Name of respondent	Lake Keepit SailingClub
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Organisation
Organisation or Business Details	
Name of Organisation	Lake Keepit Sailing Club
Who are you representing?	Other
Proposed changes to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016	
Do you have any comments on the proposed change to restrict water trading from Lower Namoi to Upper Namoi due to different reliability of these sources?	Agree
Response per WRP chapter	
Do you have any comments on how the Department of Industry lands and Water can improve the consultation process undertaken?	The consultation process should include the ENTIRE community
Response to chapter 7: Measuring and monitoring	
Do you have any comments on the proposed	Why hasn't this been done before now?

monitoring, reporting and evaluation plan (Schedule J)?	
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about the opportunity to make a submission?	Newspaper Communication from peak body
Additional Information	
Please tick the relevant boxes	I consent to my “submission” being published on the department’s website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in the submission will be published.

AUSTRALIAN FLOODPLAIN ASSOCIATION

Healthy Rivers - Healthy Communities

Sarah Moles,
Secretary AFA,
[redacted]
ausfloodplain@bigpond.com, ph [redacted]

The Australian Floodplain Association (AFA) is a non-government organisation, established in 2006. It represents floodplain and wetland landowners and their communities who depend on healthy rivers, floodplains and wetlands. Its membership resides predominantly within the Northern Murray-Darling Basin and includes floodplain graziers, community groups and shire councils.

The Australian Floodplain Association welcomes the opportunity to comment on the draft Namoi Surface Water Resource Plan.

AFA's longstanding concerns about the decline in health of the Barwon-Darling system are on the public record. It is our strong view that, as a water source with a high degree of connection to the Barwon-Darling, the Namoi WRP must guarantee minimum inflows and those flows must be managed in a way that improves the environment downstream.

We do not support an end of system flow rule tied to storage levels, nor one limited to June and August. This rule should be re-written to address environmental needs and restoring connectivity with the Barwon-Darling.

AFA is concerned by the proposal to increase access to supplementary flows in the Lower Namoi. This would reduce the security and protection of Planned Environmental Water (PEW) and therefore reduce flows that connect to the Barwon-Darling system. In our view, the current supplementary flow rules should be retained.

AFA does not support the proposal to increase water availability in the Upper Namoi through a 50% carryover rule. If implemented, it will lead to a net reduction in the protection of PEW and also impact on the access reliability of Lower Namoi users.

AFA has lodged numerous submissions opposing any increases in floodplain harvesting. In our view, a full assessment of downstream impacts, including inflows to the Barwon-Darling, must be undertaken before any decision on final FPH volumes can be made.

We strongly oppose the proposal to allow the transfer of high security regulated licences to unregulated streams to allow for an increase in mining and plantation developments. This has potential to impact on inflows to major storages and, again, reduce the protection of PEW.

In our view, the risk assessment is poor and does not adequately consider the impacts of climate change. The NSW government's emphasis on water user security seems likely to lead to a failure to meet the objects of the Basin Plan. As an example, the Water Quality Management Plan will not mitigate the high risks to river health from poor water quality.

AFA vigorously opposes the extraction of environmental flow releases from Chaffey Dam.

With regard to the unregulated sections of the Namoi valley, AFA's view is that cease to pump rules are required to protect natural and cultural values of lakes, lagoons and pools.

Finally, low flows must be protected at a minimum of 80th percentile across all unregulated water sources.

Yours sincerely,

Sarah Moles
Secretary.

I wish to make a formal submission, in dot points, re the above:
Name: Anne Weekes
email: [redacted]
occupation: semi retired irrigator on the Namoi since 1972
Wee Waa resident

Submission:
* I believe the farmers of the Namoi are some of the most highly skilled, productive farmers in Australia
* I believe that Namoi agricultural production is of enormous significance to the NSW and Australian economy
* I believe the NSW government should be doing all in it's power to protect and encourage all farming in NSW. Food, fibre, jobs, and dollars will flow.
* In my 47 years farming, I have witnesses the access to river and ground water being taken away in stages, to a now often unviable situation.
* I acknowledge the importance of environmental flows, but not to the extent of wiping out irrigation farming, from a dam, Keepit, that was built to use for irrigation
* I urge the NSW department of Planning, Industry and Environment to work with Namoi Water and it's well researched information and recommendations,
to adopt option 2 of the proposed water sharing plan.
* I respectfully urge the Minister to meet personally with Namoi Water to understand better the complexity and importance of this matter

yours sincerely,
Anne E Weekes

--
Anne Weekes

Hi Arun
Thanks for the extension, always short of time. Attached is my submission.
Regards
Phil
From: [redacted] **On Behalf Of** Namoi SW WRP
Sent: Friday, 22 November 2019 3:25 PM
To: Phil Spark
Subject: Re: Extension to submission requested for Phil Spark

Hi Phil
Sorry for the delay in responding to your email. Could you please submit your response by 8:00 am Monday 25 November 2019.

Kind regard
Arun Tiwari
Water Planner for Namoi Water Resource Plan

On Wed, Nov 20, 2019 at 5:02 PM Phil Spark [redacted]> wrote:
Hi I have not completed my submission can I have an extension please???
Philip Spark
[redacted]

Philip Spark
[redacted]

Submission to Namoi Surface Water Resource Plan (WRP)

namoi.sw.wrp@dpi.nsw.gov.au

20th November 2019

Background to my submission

Water management is very complex for lay people to fully comprehend. I don't pretend to fully understand how the issues interrelate. However my observations and understanding of the worsening water problems cause me great concern that water is not being managed properly, and this review must result in better management of water for the aquatic environment and equitable sharing between all users.

I attended a forum in Tamworth conducted by Water NSW about the dire situation for Tamworth's water supply where the presenter informed those present that catchment flows were half of that anticipated. In addition to that miscalculation the water storages of the North West that were full in 2016 became close to empty in less than three years.

The benefit of increased storage from Chaffey dam was short lived as growth and water use was allowed to increase to negate the potential long term benefit. I am concerned that damming Dungowan Creek and piping water from Chaffey will enable further increase of water use and result in increased stream regulation and decreased environmental flows.

The combination of over allocation and over estimation of predicted flows highlights how water allocation and management is in serious need of a major overhaul. To do that will require updated water modelling based on the new climate change scenario that includes a 30% increase of extreme events of hotter temperatures persisting for longer durations.

I am concerned that there is insufficient accurate data available on which to base a scientifically rigorous and justifiable Water Resource Plan. The new climate change

scenario must be modelled as accurately as possible to ensure the next sharing plan manages water more conservatively for the future. To fast track preparation of Water Resource Plans for political reasons without that data cannot be justified.

The inquiry into the Murray Darling Basin Plan has found that political interference and corruption derailed attempts to manage water sustainably for the environment and users. It seems to me that all levels of water allocation must be overhauled to be consistent in line with the needs of the environment at a national MDBA level. I question that we have the accurate modelling data on which to coordinate all levels of water management.

Failure to address sustainable water use goes back many years. I clearly recall 25 years ago departmental water resources staff requesting that no new irrigation licences be issued as water was already over allocated, that did not happen.

What was been lacking in the past was leaders willing make the tough decisions necessary to protect aquatic ecosystems. All decisions were influenced by the same economic interests that used their strong political influence to derail the Murray Darling Basin Plan process. The emphasis on water user security by the NSW Govt caused a failure to meet the objects of the Basin Plan.

Rivers can't take any further cuts to water volumes, they are already bordering on being dysfunctional, being forced to operate with a fraction of the water they had for the millions of years when they evolved.

Science provides the solutions to manage water better. The challenge is to prevent political interference that corrupts the process of implementing cutting edge science. Water management to date has been tokenistic and failed to address the worsening situation. The public have been conned into believing that plans were seriously implementing science.

To conserve aquatic life in the streams of the Namoi catchment depends on applying best practice science to water management more than ever before.

All aquatic life evolved under a scenario of unregulated flows in an undisturbed environment which provided the resilience needed to cope with the extreme weather events prior to 1770.

The modification of flows through regulation and the extraction of water has had enormous impacts on stream structure and the health of the floodplain and riparian ecosystems. In addition aquatic ecosystems have been degraded by weeds, invasive pests, and erosion related to grazing and clearing for cropping. Pollution from chemicals and water released from dams has further impacted stream ecosystems.

Such degraded ecosystems have lost their resilience to cope with extremes. To preserve aquatic life requires careful manipulation of flows to prevent the loss of the critical instream refugia that has sustained life through extreme times.

The holes that provide river refugia are on the brink of catastrophic loss if streams continue to dry at the current pace. Refuges must be managed much better to sustain life through such dry extremes. The photos in this submission show how little water hole refugia is left in the Namoi river.

I see this WRP as a do or die plan to get right, as I don't believe we will have the opportunity again to seriously address the restoration and protection of aquatic ecosystems. The pace of change is happening to rapidly for species and ecosystems to cope. Total collapse is a real possibility from which streams will not be recoverable and remain degraded for ever. The public expect that the next WRP will deliver sustainable water management and protection of the aquatic environment as a priority.

The principles for water sharing plans should be;

- Time environmental water releases to maximise the benefit, delivering amounts determined to meet specific conservation goals.
- Ensure that floods still occur across the floodplains to maintain flood dependent vegetation, and enhance stream structure and habitats.
- Ensure that sufficient refugia are maintained along the length of the Namoi Catchment and there is sufficient water to provide for all aquatic and woodland species to survive extreme dry times. Refugia locations need to be identified and mapped for protection from water extraction, grazing, weed invasion and clearing.
- Refugia must be monitored to ensure that the water quality in those refuges is adequate to sustain life through extreme events.
- The history of sedimentation and low flows has resulted in the loss of deep holes to provide refuge. Artificially creating refugia by deepening sections of river may be required to supplement existing refugia.
- Cap water use for agriculture, industry and urban users. No growth should be allowable unless surplus volumes are gained through efficiencies such as recycling.
- Increase regulation of how and when water is used to maximise benefit and minimise evaporation.
- Ensure the water quality of releases is compatible with seasonal requirements of aquatic life.

- Water should not be allowed to be traded to the highest bidder, which results in users such as mines taking water away from existing agricultural users.
- New enterprises should not be allowed to out compete existing agricultural users.
- No user should be allowed to grow at the expense of other users.

Concerns to address in Water Sharing Plans and water management in general;

1. There must be a complete reassessment of the volumes of water predicted to flow through the catchment during the life of the next water sharing plan. The plan must incorporate modelling for a 30% increase of extreme weather events for the hotter and drier conditions predicted to occur with Climate Change. Water available determinations must be made on the most recent record of low inflows into water storages.

2. The plan must ensure increased volumes and security for environmental flows to reach targeted destinations like Walgett. Planned Environmental Water (PEW) will have reduced protection if proposed changes to water sharing rules are adopted.

3. Environmental flows must be timed to meet environmental needs and not political objectives, as was the case in June this year as an example. The end of system flow rule is tied to storage levels and restricted to between June and August. This rule should be more closely related to environmental needs and improving connectivity flows to the Barwon-Darling.

4. Important refuge holes must be protected with cease to pump rules in the Peel unregulated rivers and lakes and lagoons in the Namoi unregulated rivers.
Low flows must be protected at a minimum of 80% across all unregulated water sources

5. The proposal to increase access to supplementary flow in the Lower Namoi is not supported as this will reduce protection for PEW and reduce essential connectivity flows to the Barwon-Darling. The current rule for 90% of supplementary flow to remain in the river between June and October must be maintained.

6. The proposal to increased water availability in the Upper Namoi through a 50% carryover rule will result in reduced protection for PEW and also impact on reliability of water delivered to Lower Namoi users.

7. Water releases from dams must mimic the natural inflow conditions. Water from Chaffey Dam released in Jan 2018 was very detrimental to the aquatic environment below the dam. Cold water of 16 degrees Celsius was released over the holiday period into Jan 2018, at that time the natural inflow water into Chaffey Dam was 29 degrees Celsius.

Such cold water pollution disrupts the breeding cycle of all life in rivers, and stops growth. Its impact on aquatic life in rivers extends over 100 km downstream.

That cold water deliberately released over the Christmas period impacted the Endangered Ecological Community, endangered population of Eel-tailed Catfish, and the threatened species of Silver Perch and Murray Cod.
The Water Quality Management Plan must include stronger provisions to mitigate the high risks to river health from poor water quality.
Allowing the extraction of water from environmental flow releases from Chaffey Dam is not supported.

8. I don't believe Tamworth Regional Council should get more water and increased water security from Chaffey Dam to enable the town to grow beyond what is sustainable water use. No user industry or town should be allowed to grow at the expense of other long-term users who have invested in real estate and infrastructure to provide economic benefit to the region. Tamworth's growth in water use must be accounted for in the Peel River, not the Lower Namoi

All agriculture, industry and city expansion must be capped at a sustainable water extraction level to be determined by water modelling that takes into consideration the predicted extreme events of no flows in the catchment and predictions for a 30% increase of extreme events, higher maximum temperatures and longer durations of record high temperatures. Climate predictions have proven to be correct; if anything is incorrect it is the pace of change that has been underestimated.

9. There should be no transferring of high security regulated licences to unregulated streams to allow for an increase in mining and plantation interception. All transferring must require a risk assessment to mitigate impact to other users. Such transfers have the potential to impact on inflows to major storages and reduce the protection of PEW.

10. There needs to be transparent process to make public the formulas used to calculate Sustainable Diversion Limits.

11. Have to stop licencing the capturing and extraction of overland flows. Floodplain harvesting has been assessed to cause a high risk to the environment and other water users in the Namoi. It is important that a full assessment of downstream impacts be undertaken, including flows to the Barwon-Darling, before a decision on final volumes can be made. The risk assessment is very poor, particularly in relation to the impacts of climate change.

The following pages are photo examples of extreme stream drying which will lead to "Armageddon" events for all wildlife not just fish.

Keepit Dam very low February 2019

Namoi River at Wee Waa Gunidgera Weir October 2019

Refuge hole below Wee Waa weir rapidly drying out, native fish already dead

New irrigation infrastructure installed at Wee Waa above weir.

Namoi River approx. 2km below weir all dry

Option 2 please.

Regards
Janine
[redacted]

Email address	[redacted]
Name of respondent	[redacted]
[redacted]	The draft public exhibition regulation for the Water Sharing Plan for the Upper and Lower Namoi Regulated River Water Source 2020 needs substantial changes. Over 300 people attended meetings in Wee Waa, 150 in Narrabri and 80 in Gunnedah to let the department know the draft plan is not acceptable in its current form. The NSW Government must recognise and allow all valleys in NSW to access their legal take limits as set out in the existing Water Sharing plan as Long Term Average Annual Extraction (known as baseline diversion limit). These will transfer to the Sustainable diversion limit under the Basin Plan. The Namoi Valley is well under these limits and as such a rule change to supplementary rules (allowing changed timing to access high flows) is proposed as a way to help the community be resilient to droughts or recovery faster from drought. Option 2 should be included in the new Water sharing plan rules. The department should fulfil their commitment to provide Ministers Pavey, Kean, Marshall Stokes and Deputy Premier Barilaro the full story on the benefits of the change. This should include socio economic assessment and how the change is a substantial benefit to businesses capacity torecover and be resilience to drought. Option 2 was developed by farmers and businesses in the Namoi with the help of aquatic ecologist and modeller, and is a sensible and practical option that delivers outcomes for the environment and my community. This option provides increased protection for the environment, whilst also giving our community a chance to continue to be productive and have a future. Many of the detailed rules in the plan have been changed, we request they revert back to the existing water sharing plan clauses. In this regard I support the Namoi Water detailed submission. At the Wee Waa meeting the department confirmed the supplementary access rule in our plan is NOT planned environmental water. The department need to change the draft plan to remove supplementary access from the definition of planned environment water. I do not support either permanent or temporary trade from the Peel into the Namoi it has a negative impact on the Lower Namoi water licences and therefore my community. Remove all mention of the Long term environmental watering plan in the water sharing plan and monitoring

	plans. It was confirmed that this document is not a statutory document under NSW or Commonwealth Law and it's purpose should only be used to guide how held environmental water is used. The Monitoring & Evaluation plan for Economic objectives must be finalised with community input. The NSW Government and Department can achieve a positive outcome for our community if these changes are made to ensure the communities of the Namoi can have a sustainable future.
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Individual
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about the opportunity to make a submission?	Social media
Additional Information	
Please tick the relevant boxes	I consent to my "submission" being published on the department's website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in the submission will be published. I consent to my "submission" being published on the department's website and wish to maintain my privacy by having my name withheld from the submitter's list. Please note that any emailed attachments you may have provided and any personal information that has been included in the attachment will be published. I do not consent to my submission and any emailed attachments being published

Namoi Surface Water Resource Plan & Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2020, Water Sharing Plan for the Namoi Unregulated Rivers and Peel Unregulated Rivers Water Sources 2012 (Amended 2019) submission

Maules Creek the Maules Creek Branch of the Country Women's Association of NSW

Via namoi.sw.wrp@dpi.nsw.gov.au

Who is Maules Creek the Maules Creek Branch of the Country Women's Association of NSW?

Our Branch was initially formed in 1923. We are local women with a wide network. We are concerned about the present and future health and well being of our community and environment. We believe our community is at risk now and into the future from unsustainable developments.

As country women we are primarily concerned with preserving and fostering the sustainability of rural communities. The advent of coal mining in the Boggabri/Maules Creek regions has caused the loss of many farms to mine ownership. This has dramatically reduced the agricultural productivity in an area most suited to food production. We will be here for generations to come and would like to see our land and water regenerated not undermined. We are very concerned about the impacts of climate change drivers – mining- and in this instance its impacts on water and our survival.

Context:

Our observations and the risk assessment as it relates to our area agree that our Maules Creek water region is in trouble. We have requested a management zone be established through the Porous Rock submissions. We recognise that we already have a management zone for Upper Maules Creek alluvial and surface water- our goal is to ensure the sustainability of our water sources, which are currently highly stressed.

The Namoi Surface Water Plan Risk Assessment determines that currently Maules Creek surface water is highly at risk and knowledge gaps are present. DoI Water in the Namoi Surface Water Resources Plan Risk Assessment Table 4.9 (Attachment 1) has the risk assessment for unregulated Maules Creek at the top level "high" (one of only eight unregulated systems rated the most at risk). Maules Creek surface water scores a high likelihood across all metrics for risk of insufficient water available for the environment and risk to Environmental Water Requirements in unregulated water sources in the Namoi Water Resource Plan.

Water availability across the entire Basin is more likely to decline than increase. Further the Namoi Surface Water Resources Plan Risk Assessment at 4.6. determined that although climate impacts are uncertain surface water availability across the entire Basin is more likely to decline than increase.

Maules Creek has high ecological value. The Namoi Surface Water Resources Plan Risk Assessment determined Maules Creek's "Instream value" is "High" i.e. contains the High Ecological Value Aquatic Ecosystems (HEVAE): calculated using the 4 criteria: distinctiveness, diversity, naturalness and vital habitat.

Namoi Surface Water Resources Plan Risk Assessment unable to assess the risk of climate change scenarios in Maules Creek due to a lack of appropriate information and modelling. Specifically for Maules Creek the Namoi Surface Water Resources Plan Risk Assessment determined it was unable to assess the risk of climate change scenarios in Unregulated water sources on High Ecological Value Aquatic Ecosystems (HEVAE): "due to a lack of appropriate information and modelling."

In the Namoi Region Maules Creek is the site of the greatest risk of hydrological change to ecosystem due to additional coal resource development "Modelling risk of hydrological change to ecosystems (using aquatic macroinvertebrates as an impact variable) within the lowland riverine landscape (Namoi River and major tributaries) predicted that the greatest decline in the average number of macroinvertebrate families due to additional coal resource development would occur in Maules Creek and Bollol Creek."

Since 2011, The Maules Creek community has applied to the Federal Minister for the Environment to have the unique, endemic stygofauna of the Maules Creek region, EPBC listed and assessed for its impacts from mining. GDE's were not listed in the 2012 Maules Creek Mine Planning Assessment Commission Report. https://www.maulescreek.org/wp-content/uploads/2013/07/2012-Ministerial-Briefing-GDE-Maules-Ck-Alluvial-Aquifer-3.0.pdf

The Namoi Surface Water Resources Plan Risk Assessment should maintain a critical distance from public company mining Water Management Plans and data and become self reliant for objective information with which to gauge any business data against. We believe the Maules Creek water sources are under threat from mining projects that have been approved. Department of Planning SSD Adaptive Management is currently focussed on a mine sourcing water without Department of Planning Project Approval modification and environmental impact assessment and the community has been locked out of commenting on the Water Management Plan under an "administrative amendment to the Project Approval (Jan 2017). Any exemptions from WSP rules would not be based on business data not public information and this is not helpful to protecting water sources.

The Namoi Surface Water Resources Plan Risk Assessment should be independent of reliance on mining regulation as compliance staff are under resourced. This along with the ongoing failure of the Department of Planning to understand the project and allow multiple dams to not be built and others to capture unallocated surface water to use for mining, along with surface and groundwater modelling that has not understood the topography or project to the extent that the Maules creek region is under stress. This cannot be overlooked in the Namoi Water Resources Plan or the Water Sharing Plan. The impacts are simply too great and the implications of ignoring this for other places within the Namoi region are enormous. Indeed it is not realistic.

Namoi Surface Water Resources Plan Risk Assessment is based on the assumption that stringent assessments means natural assets like water are protected 4.5.3 "Mining activities in NSW must go through stringent assessment and approval processes," suggest that water will be safe. This is a false assumption that this Namoi Regional Water Plan bases its right to effectively exclude an assessment of coal and gas or other mining impacts. Indeed the use of a project assessed under the NSW Environmental Planning and Assessment Act 1979 is being used to enable an exemption from complying with access rules. This will assist mining but not the environment or the community. This is not in the spirit of sharing or a plan.

If mining is less than 1% of catchment, the WRP need to model for how much water will be given in high security SSD allocation in the future. The Namoi Risk Assessment acknowledges that mining activities in the catchment currently comprise less than one percent of the total catchment area – yet one Namoi Mine alone holds the largest volume High Security surface water licence in the region and is currently under investigation for a huge unallocated surface water take. Unless something has changed, one mine holds 88% of High Security licence: so cannot be considered an insignificant water user.

Secondly we question when the calculations of this 1% occurred, as day by day we are seeing mines buying up water licences, often at up to five times the price that farming businesses can afford to pay. One mine now own in excess of 115,000 ha of land area and now has more than 13,000 ML of water licences.

To continue to minimise the impact of this one business on the natural resources of the Namoi is shortsighted and unrealistic and will only lead to disappointment for our rural communities, neighbours and the flora and fauna that rely on these water resources as well.

Mining should be general security class. It is not a utility and in these risky water times it should not be above farming and subject to general security licence provisions.

Community at risk from lower rainfall. As coal and CSG development and exploration are primarily in the central and eastern parts of the subregion, consideration must be given to the slow recharge and the lower than average rainfall and the continued high levels of water given to mining is not sustainable.

All 'take' for mining operations, including water required for operations and processing and intercepted water, must be accounted for by appropriate NSW water access licences acquired within the affected surface or groundwater source. The above assumption underpins this risk assessment and is a flaw in understanding surface water issues. Mining has allegedly unlawfully taken billions of litres from the surface water system. The assessment of mining impacts in this The Namoi Surface Water Resources Plan Risk Assessment seems to be ignoring the realities of current investigations and therefore understating the role of the unregulated river system.

If the scale is big enough any loss looks minimal. "Regional scale modelling undertaken by the Commonwealth Government estimated that changes in the streamflow of the Namoi River would be minimal (<1% reduction)."

"Modelling of unregulated streams using three hydrological variables (zero-flow, high-flow and annual flow characteristics) within the unregulated water sources of Bluevale and Maules Creek did show increases in the number of zero-flow days (e.g. Back, Merrygowen, Driggle Draggle and Bollol creeks), it is predicted that any effects will be localised as these catchments are small (<100 km2)."

And water quality cannot be assessed as knowledge gaps exist, therefore the The Namoi Surface Water Resources Plan Risk Assessment relies simply upon a promise from mining companies to "aim to minimise potential salinity impacts due to coal resource development." The government is willing to risk water quality for the sake of mining coal and gas. The risk must be independently assessed.

Maules creek – unless something changes is on track to be the most impacted water zone in the Namoi. Modelling risk of hydrological change to ecosystems (using aquatic macroinvertebrates as an impact variable) within the lowland riverine landscape (Namoi River and major tributaries) predicted that the greatest decline in the average number of macroinvertebrate families due to additional coal resource development would occur in Maules Creek and Bollol Creek.

The Surface Water Resource Plan meeting in Gunnedah on 5 November:

- Those present unanimously voted to reject water changes to exempt mining from rules, to use ministerial notes to do this later down the track and to in any way shape or form giving more water to mining and undermine the local community.
- "Consideration is being given of the potential option to allow conversion of high security regulated river entitlements from downstream regulated river water sources to access licences in connected upstream, unregulated river water sources."
- The idea came out of the Lachlan and Murrimbidgee plantation expansions. The local example was explained as such: "Maules creek Mine intercepting water from the surface, would impact on water users in this system downstream: Less water flowing into the dams and into the streams-If there is not enough in the system- e.g. only 100ML of entitlement in the system- it will have an impact downstream, and if you take a high security entitlement and trade this water, water taker is allowed to purchase the impact- downstream."

- Audience comment: “Allowing mines to overtake water and then buy water downstream to offset losses.”
- The community demonstrated concern that the government is facilitating the mining industries while providing “insultation” via legislated public meeting processes, to family businesses, future water reliability for food production and the community- including recreational fishing interests.
- That the outcomes of the NRAR investigation into alleged groundwater take, and the alleged illegal surface water take from Back Creek in the Maules Creek water source are top of mind within the community of the Upper Namoi water region.
- Concern was expressed that community, culture and the environment are at risk from unsustainable water management and future rule changes enabling unsustainable water take in the context of lower than average rainfall.
- It is against the objects of the Water Sharing Plans and unsustainable for water and community survival for mining projects to be exempt.

Overall Recommendation: We recommend that water sharing needs focus on sustainability and that the same set of rules for all users if our rivers and ground water sources are to be managed sustainably, particularly with a drying climate.

1. Support the precautionary principle to protect and enhance Maules Creek’s high ecological values.
2. Support that knowledge gaps be filled and are not be used to undermine sustainable water quality and management.
3. Support the ongoing 90% of supplementary flow to remain in the river between June and October.
4. Support the protection of pools with cease to pump rules.
5. Support the survival of the human community, cultural values, the natural environment and sustainable food production ahead of mining and other corporate projects and including project with exemptions under the EP&A Act.
6. Coal mining should be removed from Priority 1 of the NSW Hierarchy of Water Priorities and not be afforded a status alongside a utility.
7. We strongly object to environmentally unsustainable management rules or enabling provision that would result in (at this time or at some future date) a situation where a transfer of a high security licences from the main river into tributaries to cover mining or plantation water interception activities.
8. We strongly object to the exemption for approved EP&A Act developments with aquifer interference activities (mining) from meeting water sharing rules.

Specific recommendations:

Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2020

1. **Recommend:** Part 9: 49 Conversion of access licence to new category dealing: That the conversion of access licence to new category dealings be rejected.

2. Recommend: Part 12: 73 Amendments relating to conversion of access licences: Remove the enabling provision Part 12 (73) included in the 2019 draft plan needed for conversion of access licence to new category dealing: “Amendments relating to conversion of access licences. This Plan may be amended to provide for the conversion of regulated river (high security) access licences with share components that specify the water sources to access licences with share components that specify connected upstream unregulated water sources.”
https://www.industry.nsw.gov.au/__data/assets/pdf_file/0008/279008/draft-amended-wsp-upper-lower-namoi-regulated-river-water-sources-2020.pdf

Water Sharing Plan for the Namoi Unregulated Rivers and Peel Unregulated Rivers Water Sources 2012 (Amended 2019)

3. Recommend: That under (47) all approvals under the EP&A Act development comply with the Access rules for the taking of water from the Namoi Unregulated Rivers Water Sources. There should be no exemption for approved EP&A Act developments with aquifer interference activities from meeting water sharing rules.
https://www.industry.nsw.gov.au/__data/assets/pdf_file/0007/279007/draft-amended-wsp-namoi-peel-unreg-rivers-water-sources-2012.pdf

4. Recommendation: Current and future Irrigation licences converted for use in other industry should be subject to the same rule as is applied to irrigation under Cease to Take events in Maules Creek.

Add a note to "*Appendix 4 Access licences subject to the cease to take condition specified in clause 47 (7) of this Plan"*: the "Water Act 1912 conditions" in column 3

If a Maules Creek Water Source Surface licence is purchased by another industry and converted for use in this industry e.g. mining or other;"mining/construction/other," than it is to be subject to the same mandatory work condition in column 3 as is currently attributed to "irrigation". Example:
Column 1 90SL037340
Column 2 Maules Creek Water Source:
Column 3 "The authorised work shall not be used for the purpose of irrigation (**mining/construction/other**) unless there is a visible flow over the concrete causeway crossing of Maules Creek known as Merriendi Crossing." To apply to these licences and any additional ones in these impact Zones: 90SL037340, 90SL046395, 90SL047307, 90SL047307, 90SL047562, 90SL100765 (and any additional Water Act 1912 entitlements that will be replaced by access licences on commencement of this Plan.)

Namoi Water Resource Plan
5. Recommend: The Maules Creek areas be identified in the Namoi Water Resource Plan as having unique Ground Water Dependent Ecosystems that should be availed of the protection that comes with this as part of the Namoi Water Resource Plan.

Combined Namoi Water Resource Plan, Water Sharing Plan for the Namoi Unregulated Rivers and Peel Unregulated Rivers Water Sources 2012 (Amended 2019)

6. Recommendation: Focus on regenerating the water systems: Build up the knowledge of risks to the Maules Creek region's unregulated streams from climate and mining. Until these can be effectively assessed prohibit the taking of water for mining from these streams or at the very least not expanded past the current licensed take of 30ML/year. Until such time, focus must be on the Ecological Sustainable Development precautionary principal to these unregulated streams.

7. Recommend: That the findings of the NRAR investigations be considered before any further takes are allocated from the Maules Creek water system. That the proposed changes to the Namoi Water Resource Plan and Water Sharing Plans as they relate to High Risk systems like Maules Creek be considered after the current Natural Resource Access Regulator (NRAR) investigations are complete.

Attachment 1: Table 4.9

Table 4-9 Likelihood results for unregulated water sources in the Namoi WRPA

Unregulated water source	Likelihood rating					
	Zero Flow Periods	Base-flow or Low Flows	Fresh Flows	High and Infrequent Flows		
				OB 1.5 ARI	OB 2.5 ARI	OB 5.0 ARI
Upper Baradine Creek	L^0	H^-	L^-	L^0	L^0	L^0
Lower Baradine Creek (effluent)	N/A	N/A	N/A	L^-	L^-	L^-
Bluevale (all creeks)	L^0	H^-	L^-	L^0	L^0	L^0
Bohena Creek	L^-	L^-	L^0	L^0	L^0	L^0
Brigalow Creek	L^0	L^0	L^-	L^0	L^0	L^0
Bundock Creek	H^+	H^-	M^-	L^0	L^0	L^0
Chaffey **	M^+	M^-	L^-	L^0	L^0	L^0
Cockburn River	H^+	H^-	L^-	L^0	L^0	L^0
Coghill Creek	M^+	H^-	L^-	L^0	L^0	L^0
Mid Coxs Creek	L^+	L^-	L^-	L^-	L^0	L^0
Lower Coxs Creek	L^0	L^-	H^-	L^-	L^-	L^-
Etoo Creek	L^0	L^0	L^0	L^0	L^0	L^0
Talluba Creek	L^0	L^-	L^-	L^0	L^0	L^0
Eulah Creek	L^0	M^-	L^-	L^-	L^-	L^0
Goonoo Goonoo Creek	H^+	H^-	L^-	L^-	L^0	L^0
Keepit	H^+	H^-	L^-	L^0	L^0	L^0
Lake Goran	N/A	N/A	N/A	N/A	N/A	N/A
Lower Namoi	N/A	N/A	N/A	L^-	L^-	L^-
Lower Peel Tributaries	H^+	H^-	L^-	L^0	L^0	L^0
Maules Creek	H^+	H^-	L^-	L^0	L^0	L^0
Mid Macdonald River	M^+	H^-	L^-	L^0	L^0	L^0
Mooki River	L^+	M^-	H^-	L^-	L^-	L^-
Phillips Creek	H^+	H^-	L^-	L^0	L^0	L^0
Warrah Creek	H^+	H^-	L^0	L^0	L^0	L^0
Pian Creek	H^+	H^+	H^+	H^+	M^+	L^+
Quirindi **	L^+	H^+	L^-	L^-	L^-	L^-
Rangira Creek	L^0	M^-	M^-	M^-	L^-	L^-
Split Rock	L^0	L^0	L^0	L^0	L^0	L^0
Spring Creek	L^0	L^-	L^-	L^0	L^0	L^0
Bobbiwaa Creek	L^0	L^-	L^-	L^0	L^0	L^0
Upper Macdonald River	L^0	L^-	L^0	L^0	L^0	L^0
Upper Manilla	L^0	M^-	L^-	L^0	L^0	L^0
Upper Namoi	H^+	H^-	L^-	L^0	L^0	L^0
Upper Namoi – Halls Creek	L^0	H^+	L^-	L^0	L^0	L^0
Upper Peel Tributaries	H^+	H^-	M^-	L^0	L^0	L^0
Werris Creek	L^+	H^-	L^-	L^0	L^0	L^0

Key: L = low; M = medium; H = high; N/A = no data available

$^+$ increase from near-natural condition; $^-$ decrease from near-natural condition; ^{0} no change from near-natural condition

Thank you for the opportunity to provide a submission

Maules Creek Branch of the Country Women's Association of NSW

Due: 5pm Wed 20 November

[redacted]

20/11/2019

DRAFT NAMOI WATER RESOURCE PLAN

I have taken an active interest in the health of the Murray Darling system since soon after coming to live in Adelaide, South Australia, in the early 1960s. Over that time there have been numerous attempts to improve a cohesive, equitable and environmentally sustainable water management regime to address the accelerating increase of water extraction for agriculture, mining and human needs.

The 2007 Federal Water Act, adopted with bi-partisan support, which mandated implementation of a Murray Darling Basin Plan, carried great promise. It is tragic that failure to heed the scientific advice to minimise risk should insufficient water be returned to the environment and managed in a way that restored essential natural processes that underpin the health of the rivers, creeks, wetlands and watercourses that in turn sustain the landscape and the wildlife of the basin has led to an ongoing decline to the point where we learn just this week of the possibly terminal reduction in water birds on top of last year's major fish kills.

The Namoi is one of the great northern contributors to the Darling and ultimately the Lower Darling. The very significant decline in flow due to intensive upstream development requires a management regime that honestly faces up to the need to reduce water extractions if there is not to be total collapse.

The draft Water Sharing Plan now on exhibition is just not robust enough to meet the requirements of the 2007 Federal Water Act in keeping with the intention as set down in the Act.

Most particularly I submit that:

- the return of planned environmental water (PEW) is as risk of reduction rather than increase as it required;

- the quality of the water is at risk of further deterioration rather than improvement as is the intent behind the Basin Plan;

- there is insufficient protection of low flows, notably in the unre3gulated components of the water resource area, yet this is essential to maintain connectivity through the system;

- the impending risk of entrenching flood plain harvesting entitlements on top of an already stressed system adds further risk to established communities and enterprises;

- similarly, proposals for additional dams and groundwater extraction add potential of further conflict and this needs to be addressed prior to adopting a management regime that is already failing to deliver in accordance with the spirit of the 2007 Water Act.

Accordingly I urge Water NSW to review the broader parameters as part of re-setting the Basin Plan, within which this WRP is to sit, before committing the taxpayers of the nation to a short time fix that will in the long run deliver to a costly and increasingly divisive. regime.

[redacted]

ROY BUTLER MP
Member for Barwon

Submission by Mr Roy Butler, Member for Barwon on the draft Water Sharing Plan for the upper Namoi and Lower Namoi regulated river sources 2020

Water sharing is a highly sensitive issue in the Barwon electorate and I will watch the development of each Water Sharing Plan with interest.

Other groups will delve into the detail; that is important. I have read draft submissions and talked to many people and groups regarding their concerns.

My role is to point out the principles that will guide the Shooters Fishers and Farmers Party when it makes a decision on whether to seek disallowance of these instruments in the NSW Parliament.

Water Sharing Plans should seek to provide balance between the environment, irrigator, town, domestic supply, industrial supply and Aboriginal cultural needs for water.

This is not an easy task and is doubtful that everyone will approve of the final plan, as such, I will outline the first principle that my party will stand by.

If water is required to be moved from any current lawful usage, to another current lawful usage under an amended plan that should be through a purchase from willing sellers.

Government struggles with the integrity of commitments made in 2012 that water would not be compulsory acquired without compensation. I include rules based acquisition by stealth in governments struggle with integrity.

The previous agreements made between governments relate to the baseline diversion limit referred to as BDL. BDL is a translation of previous substantive agreements including the cornerstone of all water reform and that is the Murray Darling CAP extractions agreed to in 1996 and overseen through schedule E of the Murray Darling Basin Commission agreement audits.

The CAP number was introduced into the first Water Sharing Plans with CAP IQQM model runs that were included in the first and subsequent gazettal of all watering plans including the Namoi plan currently under review.

The clear agreement is that any requirement to move water from consumptive use (below BDL) to held or planned environment water is through purchase from willing sellers. Above BDL, there is no dispute that all water is Planned Environmental Water or NSW held environmental water.

There is considerable debt secured by water entitlements and our Party has no interest in damaging businesses that create employment and the associated regional economies.

Equally our Party expects that if Government, acting on expert advice, believes water should be transferred away from consumptive use then Government will recommend that be achieved through the mechanism of purchase from willing sellers. This is the least damaging option and frankly it is the most easily achieved and fastest option because it avoids the trench warfare of industry fighting agencies and concerns over political interference and agency freelancing.

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Purchase from willing sellers adds a discipline to government agencies that there is a cost that they need to be mindful of. It cuts down the possibility of agency staff pursuing personal agendas.

The words of the draft plan are very careful to create the sense that the plan avoids a very clear breach of the principles of outlined above we hold concerns over the integrity of those statements.

The existing water sharing plan clearly states that Planned Environmental Water exists above BDL expressed as plan limit within the Namoi Water Sharing Plan.

The draft Namoi Water Sharing Plan makes a substantial change to this by creating a new plan limit with Planned Environmental Water being below the existing BDL/plan limit. Our Party will not accept this, if the environment requires water below BDL this water needs to be identified and a budget appropriation made available. I repeat we are not against the concept that this water may be required for the environment, we simply wish to place financial rigour on departmental staff to ensure proper weighting is made on the different options available.

Our Party supports Supplementary Water option two and will not accept option one, the environmental differences identified between the two proposals are small enough that they are below normal error margins.

Even the concept conveyed by the term 50:50 is misleading; extraction will be limited by water available in individual users' accounts and on farm capacity.

Option two does not take usage above plan limit; if it did our party would not support it.
We reject any assessment of water usage in the Namoi or any water sharing plan that does not strictly adhere to schedule E as scheduled to the Commonwealth Water Act 2007.

The current freelancing of the Murray Darling Basin Authority using new forestry plantations and rainfall as a form of take is a stark example of why far more scrutiny needs to be placed on the Murray Darling Basin Agreement and the activities of State and Commonwealth officials.

Our Party remains committed to a Royal Commission into the functioning of the Murray Darling Basin Agreement. In a particular, but not limited to, reference to the making of the Barwon Darling Water Sharing Plan 2012, the water releases from the Menindee Lakes in 2016/17 and the translation of lawful rights regarding overland flow harvesting from the 1912 Act to the Water Management Act 2000.

Hello,

Please find a submission below from farmer Angus Moore of 'Nowle'y Burren Junction.

Many thanks.

The draft public exhibition regulation for the Water Sharing Plan for the Upper and Lower Namoi Regulated River Water Source 2020 needs substantial changes. Over 300 people attended meetings in Wee Waa, 150 in Narrabri and 80 in Gunnedah to let the department know **the draft plan is not acceptable in its current form.**

The NSW Government must recognise and allow all valleys in NSW to access their legal take limits as set out in the existing Water Sharing plan as Long Term Average Annual Extraction (known as baseline diversion limit). These will transfer to the Sustainable diversion limit under the Basin Plan.

The Namoi Valley is well under these limits and as such a rule change to supplementary rules (allowing changed timing to access high flows) is proposed as a way to help the community be resilient to droughts or recovery faster from drought.

Option 2 should be included in the new Water sharing plan rules. The department should fulfil their commitment to provide Ministers Pavey, Kean, Marshall Stokes and Deputy Premier Barilaro the full story on the benefits of the change. This should include socio economic assessment and how the change is a substantial benefit to businesses capacity to recover and be resilience to drought.

Option 2 was developed by farmers and businesses in the Namoi with the help of aquatic ecologist and modeller, and is a sensible and practical option that delivers outcomes for the environment and my community. This option provides increased protection for the environment, whilst also giving our community a chance to continue to be productive and have a future.

Many of the detailed rules in the plan have been changed, we request they revert back to the existing water sharing plan clauses.
I fully support the Namoi Water detailed submission and the requested changes.

At the Wee Waa meeting the department confirmed the supplementary access rule in our plan is NOT planned environmental water. The department need to change the draft plan to remove supplementary access from the definition of planned environment water.

I do not support either permanent or temporary trade from the Peel into the Namoi it has a negative impact on the Lower Namoi water licences and therefore my community.

Remove all mention of the Long term environmental watering plan in the water sharing plan and monitoring plans. It was confirmed that this document is not a statutory document under NSW or Commonwealth Law and it's purpose should only be used to guide how held environmental water is used.

The Monitoring & Evaluation plan for Economic objectives must be finalised with community input.

The NSW Government and Department can achieve a positive outcome for our community if these changes are made to ensure the communities of the Namoi can have a sustainable future.

Healthy Rivers Dubbo

E-mail: healthyriversambassadordubbo@gmail.com

Submission to Namoi Surface Water Resource Plan

To: NSW Government
Department of Industry
By e-mail: namoi.sw.wrp@dpi.nsw.gov.au

Healthy Rivers Dubbo is a community grass roots group dedicated to providing a strong voice for our local rivers, aquifers, wetlands, and for the Murray-Darling Basin as a whole. As ambassadors for healthy rivers, wetlands and groundwater, we have been active in our community calling for transparency and accountability in all aspects of water management.

Healthy Rivers Dubbo pays our respects to the Traditional Owners, past, present and future, of the land we live in. We acknowledge that the land in which we live was never ceded.

Healthy Rivers Dubbo (HRD) welcomes the opportunity to make a submission to the draft Namoi Water Resource Plan (WRP).

HRD strongly objects to the proposed rule that would allow the transfer of high security licences from the main river into tributaries to cover mining water interception activities.

HRD strongly objects to the exemption for approved Environmental Planning & Assessment Act (EP&A) developments with aquifer interference activities from meeting water sharing rules. Approvals under the EP&A Act should recognise comply with water sharing rules.

The same water access rules need to apply to all water users. Water is precious, and becoming rarer as our climate is becoming drier. The draft December 2013 report from NSW DPI Office of Water: Assuring future urban water security[1], found that Western NSW can expect 30% to 50% less potable water available by 2030.

[1] http://www.water.nsw.gov.au/__data/assets/pdf_file/0005/665609/assuring-future-urban-water-security-draft.pdf

By minimising the changes to Water Sharing Plans (WSPs) to provide certainty for water users, the NSW Government is not giving the needs of the environment the consideration required to meet the objectives of the Basin Plan.

HRD is alarmed at the high level of not-tolerable risks identified in the risk assessment for the draft WRP. It seems there are existing intolerably high risks to the availability of environmental water and capacity to meet environmental watering requirements in the Namoi. There is also a very high risk to water quality across the water source.

With such a high number of intolerable risks, the proposed rules offered in this WRP should support a reduction in extraction. As it is, this proposed WRP would likely fail to comply with the Basin Plan.

HRD is strongly supportive of the formal establishment of an Environmental Water Advisory Group in the Namoi through the rules of the WSP.

Compliance assessment should be undertaken by the Natural Resource Access Regulator, or the Natural Resources Commission. For the public to have trust in the system, compliance assessment cannot lay with the Customer Advisory committees.

95% of the growth in use of Tamworth water supply being attributed to the Lower Namoi Long Term Annual Average Extraction Limit, rather than the Peel water source is masking the problem of the Peel being over allocated. Public trust in water agencies in NSW is eroded by such proposals.

The cumulative environmental impact of Floodplain Harvesting (FPH) has not been assessed in the Northern Basin – HRD advocates that this should happen.

For the draft WRP to meet requirements under the Basin Plan, the volume of FPH access licences to be granted must be obtained through a shared reduction of all other access licences, so that the current LTAAEL is maintained. This will prevent a net reduction of PEW in the WRP area.

In conclusion, Healthy Rivers Dubbo considers that the objectives of the Basin Plan will not be met by this draft Water Resource Plan.

Melissa Gray

Convenor

Healthy Rivers Dubbo

healthyriversambassadordubbo@gmail.com

20th November 2019

Email address	[redacted]
Name of respondent	David Gee
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Organisation
Organisation or Business Details	
Name of Organisation	Split Rock Water Users Association
Who are you representing?	Irrigator
Proposed changes to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016	
Do you have any comments on the proposed change to increase the maximum volume of water that may be held in a water allocation account in the Upper Namoi at any time be increased to 1.5 ML per unit of share component specified on the respective access licence?	The Split Rock Water Users Association strongly supports this change on the following grounds; 1] It will decrease the arbitrary forfeit of allocated water at the start of each water year. 2] it will lessen the forfeit of water when s[lit rock dam goes from below ten percent capacity to above ten percent. 3] It will reduce the unpredictable jeopardy now in place for water users who want to conserve and carry-over water. 4] It will enhance trading between split rock water users. 5] It will allow for more flexibilityof irrigator operations by ending a 'USE IT OR LOSE IT' situation. 6] It has been modelled to have NO harmful third party impacts
Do you have any comments on the proposed change to restrict water trading from Lower Namoi to Upper Namoi due to different reliability of these sources?	Split Rock Water Users support this change although it is a blunt instrument. We seek clarification to ensure that water permanently sold from the upper Namoi to the lower Namoi does in fact leave the upper namoi register, and is not warehoused in the upper namoi to retain its greater reliability but used in the lower namoi.
Do you have any	Split Rock Water Users support the two changes that

comments on the proposed amendments to the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Source 2016?	impact the upper namoi group, The first does away with an anomaly created in 2007 when the upper namoi was a given a limited carry-over. Without a higher account maximum the carry-over was too risky to use. The second change is supported because it removes the potential for rorting the system by moving water from the lower to the upper namoi to attract a higher reliability.
Proposed changes the Water Sharing Plan for the Peel Valley Regulated, Unregulated, Alluvium and Fractured Rock Water Sources 2010	
Do you have any comments on the proposal to establish standardised EWAG's (Environmental Water Advisory Groups) in the Peel Regulated River?	NO
Do you have any comments on the proposed amendments to repeal temporary water trading provisions that allow water trading from Peel Regulated Water Source to Lower Namoi Water Source?	split rock water users support the repeal. The temporary trading provisions have a harmful impact on all namoi water users. They were a political fix to the Peel water price issue. And that issue has now been resolved by other means.
Do you have any comments on the proposed change in the conversion factor to be consistent with transmission losses, and maintain compliance with Murray Darling Basin Plan?	No
Do you have any comments on the proposed	No

amendments to the Water Sharing Plan for the Peel Regulated River Water Source 2020?	
Proposed changes to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012	
Do you have any comments on the proposed change to allow limited water trading between the unregulated water sources within the Namoi and Peel WSP area where third party and environmental impacts can be quantified and deemed acceptable?	No
Do you have any comments on the proposal to change the Cockburn cease to pump reference from gauge height to volume and the location of the reference site be moved to 50 m downstream side of the existing location?	No
Do you have any comments on the changes proposed to the Water Sharing Plan for the Namoi and Peel Unregulated Rivers Water Sources 2012?	No
Response per WRP chapter	
Do you have any	No

comments on how the Department of Industry lands and Water can improve the consultation process undertaken?	
Do you have any other comments on Chapter 1 or Schedule C?	No
Response to chapter 2: Water resource plan area and other matters	
Do you have any comments on Chapter 2 or Appendix A?	No
Response to chapter 4: Environmental water, cultural flows and sustainable management	
Do you have any comments on the protection of environmental water?	No
Do you have any comments on cultural connections to surface water and the protection of Indigenous values and uses?	No
Do you have any other comments on Chapter 4, Schedule E or Appendix C?	No
Response to chapter 5: Take for consumptive use	
Do you have any comments on this chapter or Schedule F?	No
Do you have any comments on the	No

incident response guide (Schedule G)?	
Do you have any other comments on Chapter 5?	No
Response to chapter 6: Water Quality Management	
Do you have any comments on Chapter 6 or the Water Quality Management Plan (Schedule H)?	No
Response to chapter 7: Measuring and monitoring	
Do you have any comments on Chapter 7?	NO
Do you have any comments on the proposed monitoring, reporting and evaluation plan (Schedule J)?	No
Response to chapter 8: Information used to prepare the WRP	
Do you have any comments on Chapter 8 or Schedule I?	No
Additional Responses to Schedules	
Do you have any additional comments on the Schedules?	No
Additional Responses to Appendices	
Do you have any additional comments on the Appendices A or C?	No
How did you hear about the Public Exhibition of this plan?	

Please let us know how you heard about the opportunity to make a submission?	Department of Industry website
Additional Information	
Please tick the relevant boxes	I consent to my “submission” being published on the department’s website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in the submission will be published.

Hello,

The Water Utilities Branch of the department has reviewed the draft water resource plans for the Barwon Darling Watercourse and Namoi Surface with regard to matters which are relevant to local water utilities and town water supplies.

We have identified some information in the table of key stakeholders in each of these draft plans for which we would like to suggest the following clarifications or improvements.

Local government authorities and local water utilities

The table of key stakeholders in each of these draft plans identifies local government authorities and local water utilities as separate stakeholders with different links to water resource management and the draft plan.

It may be helpful for these tables to identify that local water utilities are often local councils, and that in these plan areas the local water utilities are all local councils.

Requirements for water access licences and water supply work approvals

The table of key stakeholders in each of these draft plans identifies how local water utilities have links to water resource management and the draft plan.

These tables identify that local water utilities are required to hold a water access licence. These tables should also identify that local water utilities are required to hold a water supply work approval to authorise any works used to take water.

Water supply work approval requirements are relevant to water resource management and rules for water supply work approvals in these draft plans.

Accordingly, we suggested that water supply work approval requirements for local water utilities are identified in these tables.

Identification of local water utilities in the Barwon Darling Watercourse plan area

The table of key stakeholders in the draft plan for the Barwon Darling Watercourse appears to incorrectly identify that Cobar Shire Council is a local water utility which takes water from the Barwon Darling Watercourse. It is recommended that this reference to Cobar Shire Council be removed.

If you would like to talk to us about any of our suggestions, please contact S[redacted]

Kind regards

[redacted]

[redacted]

[redacted]

[redacted] ABN: [redacted]
a tax-deductible gift recipient

A brief submission in response to the *Draft Barwon-Darling Watercourse and Namoi Water Resource Plans* ("WRPs")

To: Department of Planning, Industry and Environment

Delivered by email to barwondarling.sw.wrp@dpi.nsw.gov.au

29 October 2019.

Above: A blue coffin for the death of the river was left in the Namoi River after a community mourning ceremony and protest was held in Walgett, March 2019. The town's drinking and other water supply is usually extracted from the Namoi River 500m downstream of where this photo was taken from the Marjorie Phyllis Walford Bridge.

[redacted]

About Walgett's Dharriwaa Elders Group

The Dharriwaa Elders Group[1] (DEG) takes a leading interest in the protection and maintenance of Aboriginal Cultural Values ("ACVs") in Walgett landscapes. DEG was born 20 November 2000 after Elders had worked together on projects since 1998. The Group took its name from one of its sacred sites – the RAMSAR-listed Narran Lakes - Dharriwaa (common meeting place) and its full members are Aboriginal people over 60 who live in Walgett. With the aid of partners, governments, donors and volunteers, the organisation has worked to support Aboriginal Elders to resume leadership roles in the community; keep active and healthy; promote local Aboriginal cultural knowledge and identity; and develop the Walgett Aboriginal community.

An important activity has been to protect and manage the ACVs of the Walgett area. This activity involves supporting those who hold the knowledge that provides Aboriginal Cultural Values, understanding and documenting Elders' knowledge and mapping significance in the landscape. It also involves:

- supporting Elders and others as resources permit, to reconnect with this knowledge in recognition of the importance of ACV knowledge to wellbeing
- conducting education activities including exhibitions, magazine production, schools programs, community induction for government and community education programs
- advocacy, negotiation and relationship building with landholders and governments which has sometimes enabled DEG to protect culturally significant places from destruction
- maintaining knowledge and productivity infrastructure
- continually training and mentoring local Aboriginal staff (thereby providing ongoing local economic development) at levels determined by scarce resources.

The Dharriwaa Elders Group values its relationships and collaborations with scientists and other researchers so that together, we can assist governments and the Australian nation to better understand and manage valuable natural and knowledge assets. In order to maximise our under-resourced efforts DEG works using evidence-based approaches and to build in-disputable evidence to strengthen confidence in local solutions for our town's future.

Thank you for the opportunity to make this submission.

Dharriwaa Elders Group members and community are not resourced to be providing you with detailed comment on the very detailed and hard-to-understand Draft Water Resource Plans produced by Department of Planning, Industry and Environment ("NSW DPIE") over many months. The limited (and poor) community engagement offered by the department has not improved that situation. This is compounded by the limited time given the public to respond which we assume is because NSW DPIE took so long to produce these drafts and the deadline looms. DEG appreciates the opportunity to provide the following written response which sets out our main concerns that we ask you to address using the many resources at the Department's disposal.

DEG hopes that you listen to this - one of the few submissions provided by an Aboriginal community organisation affected by the management of the Namoi and Barwon Darling Rivers.

[1] a charitable incorporated Association with deductible gift recipient status.

The wellbeing of the Barwon Darling and Namoi Rivers are our prime concern.

Restored wellbeing will provide the communities that rely on these rivers with quality drinking water, safe foods and other livelihoods.

Our town has been deprived of healthy rivers because water flows have stopped at Walgett.

We have recently witnessed the death of the Namoi and Barwon Rivers at Walgett and the ecosystems that rely on them.

Our concerns extend to the communities downstream of Walgett weirs also.

Significant work is now required to rehabilitate our rivers from the **water management disaster** we are suffering. The Water Resource Plans and Murray Darling Basin Plan must ensure this does not occur again.

Water Sharing Plans' Vision and Objectives undermined.

There is a widespread belief that Walgett's current situation is due to mismanagement.

We witness that the vision[2] and objectives of the Water Sharing Plans for the Barwon-Darling Unregulated and Alluvial Water Sources 2012's ("WSPB-DU&AWS2012") and the Namoi Unregulated and Alluvial Water Sources 2012 (WSPNU&AWS2012") appear to us to have been ignored and in many cases actively undermined.

1. The river flow-dependent ecosystems have not been protected and have been allowed to die[3]
2. The Aboriginal values of the water sources have not been protected[4] and have been seriously threatened. The impacts on sacred Aboriginal Cultural groundwaters from increased extractions must be measured, acknowledged and reversed.
3. The inequitable use of water upstream of Walgett has been permitted.[5] Walgett's water supply from the river was stopped when pumps were still active upstream providing water to industries that were prioritized over the environment and our town.
4. Water quality has deteriorated at Walgett[6] to the point where recently Walgett was on a boil water alert due to the unsafe weir pool. An evidence base and testing regime must be resourced to vigilantly manage water quality. The recent introduction of monthly water quality testing by NSW Health is applauded and we request that these results are made publicly available. We request that the public health implications on our community's health and wellbeing of algae, chlorine bi-products, herbicides and pesticides in the water are understood and addressed by evidence-based research.
5. There has been no work to identify and protect the connectivity of groundwaters and surface waters in the Walgett area[7]. Our knowledge is required for this task and we have not been asked for it. Recently we applied to NSW Environmental Trust to fund a project to do this which was rejected. We have not found any other resourcing for this activity.

[2] "The vision of this Plan is to provide for healthy and enhanced water sources and water dependent ecosystems and for equitable water sharing among users in these water sources" (Part 2, Clause 9).
[3] "(a) protect, preserve, maintain and enhance the important river flow dependent and high priority groundwater dependent ecosystems of these water sources" (Part 2, Clause 10)
[4] "(b) protect, preserve, maintain and enhance the Aboriginal, cultural and heritage values of these water sources" (Part 2, Clause 10)
[5] "(d) manage these water sources to ensure equitable sharing between users" (Part 2, Clause 10)
[6] "(g) contribute to the maintenance of water quality" (Part 2, Clause 10)
[7] "(h) provide recognition of the connectivity between surface water and groundwater" (Part 2, Clause 10)

6. Inappropriate water trading[8] that has conflicted with, and been unfairly preferenced over the environmental and other public benefit outcomes from healthy flowing Barwon and Namoi Rivers at Walgett, has occurred. Irrigators and miners are allowed to use far too much water, and at the wrong times. We also worry that these activities risk the quality of artesian and alluvial waters.

The findings of the ABC Four Corners "Pumped" exposé, and Mathews, NSW Ombudsman's, Vertessy and Natural Resource Commission reports indicate many shortcomings in the management of water in the Namoi and Barwon Darling Rivers. These investigations have confirmed our community's disquiet and strengthened our lack of confidence in the NSW Government's ability to manage our critical natural water resources.

The town of Walgett might not have needed to extract its town water supplies for the last 18 months from the Great Artesian Basin[9] if the WSPs were effective and managed well.

Community confidence in water management must be restored by immediate and active measures from the NSW Government. **The Walgett Aboriginal community recently joined calls for a Royal Commission into management of water in the Murray Darling Basin.**

Food

We can no longer feed our families on the Yuul (Food) from the rivers; such as Dhagaay (Yellowbelly), Gudu (Cod), Yingaa (Crayfish), and Dhangal (Mussel). This has impacted the diet of local peoples as we require healthy rivers with suitable habitat for one of our most important sources of food. The carrying out of cultural and family activities involved with the collection of food in and around the water have also been severely affected by the poor condition of the rivers. These practices have always been an essential part of life living on the rivers, which Aboriginal people have been doing here for tens of thousands of years.

Dams are not the answer for water security

We believe that evidence shows that the wellbeing of rivers requires that waters need to be flowing and not held up. We require that river flows are managed to improve the distances and volumes of water to be regularly flowing between existing dams and weirs. If this means reducing the volume of water diverted out of the system to water licence holders, then we require that. If this means modifying existing dams and weirs then we require that. This will mean that flows need to be restored first to understand and identify the factors for maintaining river health before sustainable Individual Daily Extraction Limits (IDELs) and water licences are determined. The scientific work must be undertaken first to understand how to fulfil the objectives of the WSPs and we are informed that this work has not yet been undertaken.

At Walgett the work has not been done to accurately model river heights if the Barwon Weir is raised, if a new higher weir is built further downstream nor if the Namoi Weir is removed. These current ill-informed proposals are promoted by some of our community leaders today and must not be appeased before studies have been done.

[8] "(j) contribute to the "environmental and other public benefit outcomes" identified under the "Water Access Entitlements and Planning Framework" in the Intergovernmental Agreement on a National Water Initiative (2004) (hereafter the NWI)." (Part 2, Clause 10)

[9] Excluding approx.2 months when Commonwealth Environmental Water combined with NSW Water releases to send temporary water down the dry Barwon and Namoi riverbeds to Walgett (resulting eventually in the recent Walgett boil water alert because so many dead animals and other harmful materials ended up in Walgett's weir pool)

Regular evaluation must be undertaken of the implementation of the WRPs and WSPs

We are not aware of any evaluation of outcomes against the performance indicators of the WSPs, and we are not aware of any project established to evaluate or use the performance indicators in the WSPs in the Walgett area. The Water Resource Plans must oversee a regime to ensure evaluation.

As an active stakeholder in Aboriginal Cultural Heritage and Environmental matters in the Walgett region, Dharriwaa Elders Group ("DEG") expects to be actively engaged in relevant water studies and evaluation – not merely invited to "community engagement" opportunities which are provided for NSW Government employees to tell our community what they are doing. So far no realistic plans have been made with DEG to establish how evaluation would be achieved or successful in our community's view. Dharriwaa Elders Group and its **Aboriginal Water Rangers** could be actively involved in the evaluation task at Walgett.

Compliance and management efforts needed on the ground

DEG requests that serious consideration, resources and authority be given to **Aboriginal Water Rangers** to support water use compliance and water quality improvement tasks, hand in hand with DEG's scientific partners within Yuwaya Ngarra-li[10] and specially-trained **Environmental Police** who could operate from an Environmental Policing Institute to be established in Walgett's new $16million police station.

While the Aboriginal Water Rangers would contribute to the compliance and evaluation tasks, they would also undertake river reparations tasks including

- Removing dead fish, carp and invasive pests from the rivers
- Restoring riverine vegetation, addressing riverbank erosion and other hydrology
- Removing rubbish from the rivers and undertaking innovative pollution and waste reduction projects
- Educating landholders regarding the environmental and ACH values of the rivers
- Identifying the connectivity between surface and groundwaters
- Undertaking other works proven to enhance water quality, river and dependent ecosystem wellbeing

Active Management regime

The proposed new Active Management regime will provide communications from the Minister and Department on a 24 hour basis to water licensees to notify when they can appropriately extract water. Dharriwaa Elders Group requests receipt of these notifications so we can be actively engaged in the water management process and understand what we are witnessing at Walgett and along the rivers. It has been traumatizing to receive Facebook and community reports of water extraction upstream when we are deprived of water. We need to know the official news so that we can assist our community to understand the management of the rivers.

Aboriginal people must be enabled in legislation to access rivers anywhere anytime

Today in Walgett western lands leaseholders have been allowed to modify their leases to block access to our community to tracks and roads leading to the rivers. Freehold titleholders have blocked access to the rivers, and one notorious local landholder has locked gates on crown roads

[10] A partnership led by Dharriwaa Elders Group with multi faculties of the University of NSW including the Global Water Institute of Engineering Faculty, and water law experts in the Law Faculty

leading to the Barwon River, enabled by NSW Crown Lands despite years of legal requests from Dharriwaa Elders Group. **Dharriwaa Elders Group requires that the Water Resource Plans ensure that Aboriginal people have free access to the rivers and springs.** This will be an important action necessary for the enabling of the WRPs' Aboriginal Cultural water provisions. It will also reduce needless conflict between landholders and Aboriginal communities.

Aboriginal communities require water for socio-economic development

Most Aboriginal communities do not have the access to capital in order to purchase water licenses for business development. DEG requests water allocations for Aboriginal communities to use in order to produce local socio-economic outcomes. Walgett has a number of enterprises currently in development that require water. They will provide jobs and food security for our community and we argue that special water allocations should be included in an equitable water management regime.

Supplementary water (Aboriginal Environmental) access licenses and Aboriginal Cultural water licenses

NSW employees involved in Active Management will need to work closely with DEG because cultural protocols require trusted long term relationships with Elders before knowledge of Aboriginal Cultural and Aboriginal Environmental water requirements is shared.

Supplementary water (Aboriginal Environmental) access licenses and Aboriginal Cultural water licenses are offered by the WSPs, however they have not been accessed to our knowledge by anyone in the Walgett Aboriginal community. Serious planning must be undertaken with Dharriwaa Elders Group ("DEG") and other relevant Aboriginal stakeholders, to understand what this instrument could involve, include and support, and how Aboriginal individuals and communities are to be supported to access these provisions. DEG offers advice to assist this process.

Dharriwaa Elders Group has identified Aboriginal cultural and environmental places that require water. We require funded programs which will resource DEG to work with trusted groundwater, surface water and ecology scientists of our choosing, to undertake co-designed knowledge-sharing projects so that the volumes of water required can be defined and requested. These studies cannot be undertaken by staff of the NSW Government. The community's knowledge may be shared as our organisation determines and negotiates. This requirement will provide trust and engagement where neither of these, nor relationships, currently exist with NSW Water or NSW DPIE.

No native title claims have been determined yet for Walgett, but when they are, the relevant Water Sharing Plans must respond and incorporate their requirements, which will include surface and groundwater entitlements. Similarly, lands granted under NSW Aboriginal Land Rights Act, or managed under Indigenous Land Use Agreements, must be accommodated by the relevant Water Sharing Plans.

Evidence base is required to understand surface and groundwater connectivity; water management impacts on dependent ecosystems and Aboriginal cultural values and to determine sustainable levels of groundwater and surface water allocations and use.

Another task of Aboriginal Water Ranger enterprises to be located in suitably-capable Aboriginal communities along the Barwon Darling and Namoi Rivers is to work with ground and surface water and ecosystem experts to define the impacts of water management regimes on dependent

ecosystems, and then implement on-the-ground ongoing management work. This work has not begun, yet our council has no choice but to extract Great Artesian Basin water for our town's drinking water. There is no evidence-base to indicate what sustainable levels of groundwater extraction are.

There is no evidence base to understand the interaction between groundwater and the Barwon and Namoi Rivers near Walgett, or what happens to those levels of groundwater inflows into the river, and the water table, once large constant extractions of groundwater are occurring. There is no evidence base regarding the impacts of this increasing groundwater extraction on dependent ecosystems. NSW Government is busy encouraging towns, landowners and miners to drill new bores as the rivers run dry, before knowing the implications and impacts of these actions. The contributions from groundwaters to surface waters are unknown.

DEG has been told by NSW DPIE Water that they can only "hope" that Walgett Namoi River water allocations arrive in Walgett because evaporation and the sunken water table from groundwater extractions upstream render predictions guesswork only. This lack of knowledge also applies to water releases along the Barwon River. It was not known by NSW Water how far the recent environmental releases of Held Environmental water by the Commonwealth Water Holder combined with a NSW Water Environmental water release would reach. This uncertainty constrains any responsible determinations of sustainable water extractions. The modelling and science has not been undertaken to enable those determinations to be made accurately.

The contributions of floods and surface waters to our alluvial reservoirs are unknown. Very little is known about the quality of water in the Walgett alluvial reservoir, yet our community will need to draw on that water in times of future water scarcity. If these waters are not replenished because of the impacts of floodwater harvesting and river extractions upstream, then our community will have lost another valuable natural resource from mismanagement.

DEG is keen to begin this work with its partners in the UNSW Global Water Institute.

Need for Climate Change planning

The WSPs' objectives and visions for equitable use of water are challenged by over-allocation, a poor evidence base (as described above) and the absence of planning for climate change. Water-saving measures must be introduced in Walgett and other towns up-stream, so that Environmental water and water for Aboriginal Cultural and Environmental and Supplementary license allocations are available. Also most importantly so that the healthy flows and dependent ecosystems of the rivers and groundwaters are maintained. The lack of climate change planning and preparedness by local, NSW and Commonwealth governments is contributing to inequity in water management. The reliance of the Water Resource Plans on old data produced before NSW Government has acknowledged Climate Change is also concerning.

Work is required to understand how to bring back to life our dead rivers and ecosystems, and to protect the vulnerable recovering surface waters from weed and pest threats.

DEG recently lodged an expression of interest with the NSW Environmental Trust with the UNSW Global Water Institute, so that work could be undertaken in our area of knowledge and custodianship to understand how to restore wellbeing to our rivers and ecosystems, and manage ongoing wellbeing with DEG's proposed Aboriginal Water Rangers. It was not successful. Similar projects are needed to be undertaken by scientists working in community-led approaches along the Barwon Darling Watercourse and Namoi Rivers. This work must be undertaken to implement

the objectives of the WSPs. Resources must be devoted to understanding how to maintain healthy river flows and maintaining healthy flows of the rivers at Walgett.

DEG urges the Department to ensure that the WRPs support implementation of objectives of the Water Act 2007 (Cth), including to apply the principles of ecologically sustainable development, in order to encourage best practice in the management and use of surface and groundwaters.

I make this submission to the NSW Department of Planning Industry Environment – Water.

I am submitting as an individual / organisation (circle one). I do not consent to my submission being made public. I am a Business owner/Rural Resident/Farmer/Student/other (circle one).

The draft public exhibition regulation for the Water Sharing Plan for the Upper and Lower Namoi Regulated River Water Source 2020 needs substantial changes. Over 300 people attended meetings in Wee Waa, 150 in Narrabri and 80 in Gunnedah to let the department know **the draft plan is not acceptable in its current form.**

The NSW Government must recognise and allow all valleys in NSW to access their legal take limits as set out in the existing Water Sharing plan as Long Term Average Annual Extraction (known as baseline diversion limit). These will transfer to the Sustainable diversion limit under the Basin Plan.

The Namoi Valley is well under these limits and as such a rule change to supplementary rules (allowing changed timing to access high flows) is proposed as a way to help the community be resilient to droughts or recovery faster from drought.

Option 2 should be included in the new Water sharing plan rules. The department should fulfil their commitment to provide Ministers Pavey, Kean, Marshall Stokes and Deputy Premier Barilaro the full story on the benefits of the change. This should include socio economic assessment and how the change is a substantial benefit to businesses capacity to recover and be resilience to drought.

Option 2 was developed by farmers and businesses in the Namoi with the help of aquatic ecologist and modeller, and is a sensible and practical option that delivers outcomes for the environment and my community. This option provides increased protection for the environment, whilst also giving our community a chance to continue to be productive and have a future.

Many of the detailed rules in the plan have been changed, we request they revert back to the existing water sharing plan clauses.
I fully support the Namoi Water detailed submission and the requested changes.

At the Wee Waa meeting the department confirmed the supplementary access rule in our plan is NOT planned environmental water. The department need to change the draft plan to remove supplementary access from the definition of planned environment water.

I do not support either permanent or temporary trade from the Peel into the Namoi it has a negative impact on the Lower Namoi water licences and therefore my community.

Remove all mention of the Long term environmental watering plan in the water sharing plan and monitoring plans. It was confirmed that this document is not a statutory document under NSW or Commonwealth Law and it’s purpose should only

be used to guide how held environmental water is used.

The Monitoring & Evaluation plan for Economic objectives must be finalised with community input.

The NSW Government and Department can achieve a positive outcome for our community if these changes are made to ensure the communities of the Namoi can have a sustainable future.

Kerry C. Watts

[redacted]

Your form has a new entry. Here are all the answers.

Email address	[redacted]
Name of respondent	J Howard
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Individual
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about the opportunity to make a submission?	Have you say website
Additional Information	
Please tick the relevant boxes	I consent to my “submission” being published on the department’s website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in the submission will be published.

Email address	[redacted]
Name of respondent	Brian Phillip John Stevens
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Individual
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about the opportunity to make a submission?	Communication from peak body
Additional Information	
Please tick the relevant boxes	I consent to my "submission" being published on the department's website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in the submission will be published.

SUBMISSION ON NAMOI SURFACE WATER WATER RESOURCES PLAN

Brian Stevens (Former Secretary Darling River Action Group

My main concerns with the Water Resources Plan are:

1. The Namoi River was once a major source of water for the Darling River. According to Webb, McKeown & Associates (2007) State of the Darling Report, the Namoi provided on average 23.1% of the water in the Darling, before the era of widespread irrigation extraction. In the most recent years there has been almost no water entering the Darling River from any tributary. In the Namoi WRP I see no target for end of system flow. The Namoi should not be treated as a terminal stream.

2. Environmental water flows must be protected from pumping by irrigators. At present in the Northern Basin, irrigators are able to pump when rivers reach a certain height. This

enables pumping from environmental flows, legalised water theft. The environmental water has been purchased by environmental water holders for environmental purposes and does not belong to the irrigators.

3. Water quality, as affected by coal mining and/or fracking. Both of these processes involve the disturbance of salty, polluted groundwater. The WRP should include protections against such water entering the waterways and should include monitoring.

4. The objectives of the Gomeroi people should be objectives for all people: good flows, the ability to fish, swim, to support growth of native animals and plants, and the ability to enjoy a river, not an agricultural drain.

I support the submissions of the Inland Rivers Network and Jonathon Howard.

Brian Stevens

[redacted]

20.11.2019

20 November 2019

Department of Primary Industries

NSW Government

namoi.sw.wrp@dpi.nsw.gov.au

TOLARNO STATION 1851 Pty Ltd

via Wentworth, NSW, 2648

[redacted]

www.tolarnostation.com.au

Submission on the Draft Namoi Surface Water Resource Plan

Thank you for the opportunity to comment on the Draft Namoi Surface Water Resource Plan (WRP).

I own three properties totalling 500,000 acres on the Lower Darling, approximately 50 km south of the Menindee Lakes. Tolarno Station sits on the Darling River, and all three properties depend on the Darling for livestock and domestic purposes. The properties have a rich history spanning 160 years, and today run merino sheep, cattle and rangeland goats.

In developing WRPs it is important to reflect on the aim of the Murray-Darling Basin Plan (MDBP), which is to

> *"… ensure water is shared between all users, including the environment, in a sustainable way. It does this by managing the basin as one system."(MDBA)*

I recognise the role of WRPs in the implementation of the MDBP at a regional level. However, it is critical that the WRPs are interconnected and support the common aim. It must also be recognised that environmental, social and economic risks identified within one WRP area are impacted by the water sharing plans (WSPs) and WRPs of other areas.

I provide the example of events in the Lower Darling over the period of 2015-2016. The Lower Darling was dry for a period of 8 months. In white history, it has only been in the last 10 years that on 3 occasions there has not been a permanent water supply. During this period, there were significant and long-lasting social and economic impacts to the community. On my property alone, I experienced significant loss of land, stock and production. 200,000 acres of land was lost to production due to loss of property borders (the river is a natural boundary between properties) and no potable water for stock. The situation in 2015-2016 was worse than any experienced during the 2000s drought. The catchment had received average rainfalls over the preceding 12 months, and in our opinion the event was a result of over-diversion in upstream WRP areas, conjunction with ineffective management of the Menindee Lakes.

I hope that through the development of effective upstream WRPs which truly prioritise the river environment, such an environmental, social and economic disaster which occurred will be avoided in the future. The community seeks appropriate, sustainable long-term management of the Darling and its tributaries. We recognise that the MDBP and WRPs are critical in achieving this.

Dependence of the Lower Darling WRP area on upstream WRP areas

The Lower Darling catchment has minimal runoff and is entirely dependent on inflows from the Barwon-Darling, of which 99% of flows are generated in upstream tributaries (MDBA). The Lower Darling is the only connection between the Barwon-Darling and the Murray Rivers.

Comments on the Water Resource Plan

- It is positive that an end of system flow rule has been proposed. However, this does not ensure flow beyond this Plan's area, and is therefore in contradiction to the Water Management Act 2000. The flow target will also be ineffective at enabling connectivity as it is restricted to storage levels and the period of June – August. This rule will not meet environmental need and improve connectivity, and these restrictions should be removed.

- If the proposed changes to the water sharing rules are not adopted, this WRP will result in a net decreased in the protection of Planned Environmental Water. This is not acceptable.

- The proposed 50 percent carryover rule in the Upper Namoi will result in a net reduction of the protection of Planned Environmental Water. This will have a significant impact on flows downstream in the Namoi WRP and other WRPs.

- In the Lower Namoi, there is an increase to the access for irrigators to supplementary flow. Irrigators already has access to the majority of the dam water in the area as regulated flow. Access to supplementary flows should only be permitted when all environmental, human and stock and domestic needs are met to Wentworth. The current rule that 90 percent of supplementary flow must remain in the river between June and October should be extended to be all year around. Summer flows are some of the most critical flows for the Barwon-Darling and Lower Darling, and these flows must be protected.

- Floodplain harvesting is assessed to pose a high risk to the environment and water users. The modelling regarding the volume of water which can be captured through floodplain harvesting is still underway, and has not been released or accounted for within the WRP. It is anticipated that the volume will be significant, and it is critical that the WRP is not finalised prior to the finalisation of the volumes which will be captured through floodplain harvesting. Signing off on any WRP which does not adequately account for floodplain harvesting demonstrates negligence and incompetence by the Department. This would have a significant impact on flows in lower reaches of the Basin.

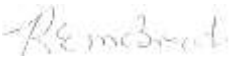
In conclusion, there has been a failure of the Namoi WRP to seriously address ecological outcomes. When these ecological outcomes are not achieved, there is a real and serious impact on individuals, families, communities and businesses.

There is a serious failure by the NSW Government to adequately address the concerns regarding over-extraction in the Barwon-Darling.

In its current state, this WRP will does not prioritise the river environment, and the environmental, social and economic disaster which is occurring at present across the Barwon-Darling and Lower Darling will be repeated in the future. The community seeks appropriate, sustainable long-term management of the Namoi. We recognise that the MDBP and WRPs are critical, and bitterly disappointed that this WRP does not achieve this.

I would be happy to expand further any of my above comments. It is critical that this WRP is not signed off until the issues of connectivity between WRPs is addressed.

Kind regards,



Robert McBride
Tolarno, Peppora and Wyoming Stations
[redacted]
[redacted]
www.tolarnostation.com.au

I make this submission to the NSW Department of Planning Industry Environment – Water.

Name: [redacted]

Email: [redacted]

I am submitting as an individual / organisation (circle one or delete).

I do not consent to my submission being made public.

[redacted]

KEY SUMBISSION POINTS;
The draft public exhibition regulation for the Water Sharing Plan for the Upper and Lower Namoi Regulated River Water Source 2020 needs substantial changes. Over 300 people attended meetings in Wee Waa, 150 in Narrabri and 80 inGunnedah to let the department know the draft plan is not acceptable in its current form.
The NSW Government must recognise and allow all valleys in NSW to access their legal take limits as set out in the existing Water Sharing plan as Long Term Average Annual Extraction (known as baseline diversion limit). These will transfer to the Sustainable diversion limit under the Basin Plan.
The Namoi Valley is well under these limits and as such a rule change to supplementary rules (allowing changed timing to access high flows) is proposed as a way to help the community be resilient to droughts or recovery faster from drought.
Option 2 should be included in the new Water sharing plan rules. The department should fulfil their commitment to provide Ministers Pavey, Kean, Marshall Stokes and Deputy Premier Barilaro the full story on the benefits of the change. This should include socio economic assessment and how the change is a substantial benefit to businesses capacity torecover and be resilience to drought.
Option 2 was developed by farmers and businesses in the Namoi with the help of aquatic ecologist and modeller, and is a sensible and practical option that delivers outcomes for the environment and my community. This option provides increased protection for the environment, whilst also giving our community a chance to continue to be productive and have a future.
Many of the detailed rules in the plan have been changed, we request they revert back to the existing water sharing plan clauses. In this regard I support the Namoi Water detailed submission.
At the Wee Waa meeting the department confirmed the supplementary access rule in our plan is NOT planned environmental water. The department need to change the draft plan to remove supplementary access from the definition of planned environment water.
I do not support either permanent or temporary trade from the Peel into the Namoi it has a negative impact on the Lower Namoi water licences and therefore my community.
Remove all mention of the Long term environmental watering plan in the water sharing plan and monitoring plans. It was confirmed that this document is not a statutory document under NSW or Commonwealth Law and it's purpose should only be used to guide how held environmental water is used.
The Monitoring & Evaluation plan for Economic objectives must be finalised with

community input.
The NSW Government and Department can achieve a positive outcome for our community if these changes are made to ensure the communities of the Namoi can have a sustainable future.

Signed: [redacted]

Signed Electronically for email

Date: 20/11/2019

Kind regards,

[redacted]

Email address	[redacted]
Name of respondent	Damian John Oudenryn
Address	[redacted]
Contact phone number	[redacted]
Are you an individual or representing an organisation?	Organisation
Organisation or Business Details	
Name of Organisation	JJ, AE & DJ OUDENRYN
Who are you representing?	Water related industry
Additional Responses to Appendices	
Do you have any additional comments on the Appendices A or C?	This locally owned business supports the second option the town of Wee Waa put forth at the local water meeting.
How did you hear about the Public Exhibition of this plan?	
Please let us know how you heard about the opportunity to make a submission?	Newspaper
Additional Information	
Please tick the relevant boxes	I consent to my “submission” being published on the department’s website and my name will be included with my suburb or town in a list of submitters with a link to my submission. Please note that any attachments you may have provided and any personal information that has been included in the submission will be published.

I live and work on a farm and if the water goes so do all the jobs.
And your department will be responsible for all the people from this area costing the government in welfare payments. How much will that cost?

Option 2 will work if we work together.

Mark Hennessy
[redacted]

Maules Creek Community Council Inc.

RE: Submission – the Namoi Surface Water Resource Plan, Water Sharing Plan for the Namoi Unregulated Rivers and Peel Unregulated Rivers Water Sources 2012 (Amended 2019), and the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2020

Thank you for the opportunity to make comment on the Namoi Surface Water Resource Plan. The Maules Creek Community Council (MCCC) is a community-based organisation whose missionis to educate and inform the community and to liaise with government, resource companies and other community groups about issues relevant to the Maules Creek community. Maules Creek is located in the heart of the agricultural powerhouse of the Namoi Valley in North West NSW.

The community is concerned that over four years excessive volumes of surface water in Maules Creek has been allegedly illegally taken by mining to wash coal and that the take has had an un-assessed impact on the surface water flows and the alluvium groundwater resource, that sustain our connected water source. The Namoi Surface Water Resources Plan Risk Assessment has assessed the Maules Creek unregulated water source as highly at risk of zero flow periods and base flow or low flows and a very low chance of having high and infrequent flows. The Namoi Surface Water Resources Plan Risk Assessment also acknowledged that Maules Creek's "Instream value" rated as "High." Yet it is the Namoi region site at the highest risk from hydrological change due to coal mining. It is therefore disappointing that it has not been a priority to be assessed for climate risk due to lack of available data and modelling.

We are further concerned that at the same time, the Maules Creek coal mine which was approved on the basis of its 3000 ML surface water licence for its operations and some Zone 11 alluvium licences for passive take has greatly expanded its extraction of groundwater for operations from the Gunnedah Oxley Basin which is directly impacting on the alluvium. This expansion of extraction was not modelled or approved during the planning process and is now threatening the Maules Creek water source.

In light of the ongoing ground and surface water investigations, drought and climate change impacts, the loss of water and the lack of rain, we are very concerned about

- any exemptions for mining companies from having to comply to access rules and
- any surface water licencing conversion of regulated river (high security) access licences to allow mines to take water from connected upstream, unregulated river water sources.

These could potentially negatively affect high risk water sources and surface water systems including the Maules Creek water source and unregulated Maules Creek surface water systems.

Yours sincerely,

Roselyn Druce

MCCC Inc

[redacted]

Recommendations

Recommendation 1: In the Water Sharing Plan for the Upper Namoi and Lower Namoi Regulated River Water Sources 2020 (WSP 2020), the conversion of access licence to new category dealing: "where an option to allow limited conversion of regulated river (high security)

access licences to access licences in connected upstream unregulated river water sources," be rejected.

Recommendation 2: Removal of the Part 12 (73) amendments enabling the provision or a future provision to be included in the WSP 2020, for conversion of access licence to new category dealing.

Recommendation 3: That the proposed changes (47) Access rules for the taking of water from the Namoi Unregulated Rivers Water Sources that provide exemptions for approved EP&A Act developments with aquifer interference activities from meeting water sharing rules be rejected. (*Water Sharing Plan for the Namoi Unregulated Rivers and Peel Unregulated Rivers Water Sources 2012 (Amended 2019)*)

Recommendation 4: That the proposed changes to the Namoi Water Resource Plan and Water Sharing Plans as they relate to High Risk systems like Maules Creek be considered after the current Natural Resource Access Regulator (NRAR) investigations are complete.

Recommendation 5: Coal mining should be general security licenced and not handed a status alongside a utility.

20 Nov 2019

namoi.sw.wrp@dpi.nsw.gov.au

Thankyou for agreeing to take this late submission. Our last 3 weeks have been consumed by the fish rescue in the Macquarie

CC

Craig Copeland
Chief Executive Officer
OzFish Unlimited
[redacted]
[redacted]

November 2019

Draft Namoi Surface Water Resource Plan

To Whom it may Concern

OzFish Unlimited is a national organisation with a mission to protect and restore fish populations and support recreational fishers in this activity. Our members have provided input to develop this response. In the first instance we have seen the dreadful situation for our native fish in a number of rivers in the Murray Darling Basin including the Namoi and this is having a devastating impact on recreational fishing which is a major social and economic contributor to the Basin.

On a general and troubling note your Namoi Long Term Water Plan Part A: Namoi catchment notes *River flows of specific volume, timing and duration are required to protect and improve the population structure of existing native fish species and increase their spatial distribution throughout the catchment. The fish community in the Namoi catchment was rated poor in the first Sustainable Rivers Audit in 2008, and in very poor condition in the second audit in 2012, demonstrating a decline in the health of the Namoi fish communities*

Our review does not show any proposed changes that will improve flows that could change this very poor condition or meet the targets for fish established in the Plan. Moreover, the lack of action to increase protection of low flows, increase Environmental Flow allocation and further protect supplementary flows means this plan is unsatisfactory.

On a specific matter reverting to the 90:10 supplementary flow sharing rule over the July-October period is the minimum action that is required but as stated will be not sufficient to achieve fish objectives.

If you have any questions on this statement, please contact me on 0419185538.

Yours sincerely,

Craig Copeland
Chief Executive Officer
OzFish Unlimited