MACQUARIE MARSHES ENVIRONMENTAL LANDHOLDERS ASSOCIATION

RE: MACQUARIE RIVER RE-REGULATING STORAGE

INTRODUCTION:

The Macquarie Marshes Environmental Landholders Association (MMELA) was formed in 1995 when there was increasing pressure to further reduce water flows to the Macquarie Marshes. Its members are local landholders, many of whom are third and fourth generation landholders in the area, and all are dedicated to ensuring a healthy and productive marsh for future generations.

OUR AIM:

The Macquarie Marshes Environmental Landholders Association (MMELA) aims to ensure the social, economic and environmental sustainability of the internationally recognised Macquarie Marshes.

BACKGROUND:

The Macquarie Marshes is a large semi-permanent, **flow through** wetland on the lower end of the Macquarie River in central western NSW. It covers an area of approximately 200,000ha of which 12% is a Nature Reserve managed by the NSW National Parks & Wildlife Service (NPWS). The remaining 88% is privately owned freehold land which supports an extensive agricultural industry. Much of the land has been held in families for generations and the property owners have an extraordinary knowledge and understanding of all aspects of the Marshes and its management.

The Macquarie Marshes Nature Reserve, Wilgara Wetland and U Block are listed on the **Ramsar Convention of Wetlands of International Importance**. The Nature Reserve is also listed on the **Japan - Australia Migratory Bird Agreement (JAMBA)** and the **China - Australia Migratory Bird Agreement (CAMBA)** along with several other agreements.

It is the responsibility of the whole community, including State and Federal Governments, to ensure management of the wetland does not compromise values and/or obligations set out in the above mentioned agreements.

The Macquarie Marshes is unique both environmentally and economically. Research indicates it **is the most important colonial nesting waterbird breeding site in Australia** for species diversity and nesting density (Kingsford and Thomas 1995). The majority of the breeding colonies are situated on privately owned land where landholders have managed and protected them since settlement. The Marshes also support an extensive cattle grazing industry which is its main economic focus. Sustainable grazing is encouraged by MMELA and the majority of landholders are acutely aware of the environmental needs of the wetland and undertake congruent management practices.

Government policy and decision making relating to natural resource management has in the past had devastating impacts on the Marshes, particularly water management, which has severely reduced water flows through river regulation and other such legislation.

When Burrendong Dam was completed and irrigation established throughout the Macquarie Valley scientific research showed flows to the internationally recognised Macquarie Marshes were greatly decreased. MMELA brought this to the attention of many governments and fought for water to be recovered for this diverse and unique wetland and its associated floodplain. As a result both the NSW and Federal Governments introduced 'buy back' programs and improved efficiency schemes in an effort to halt the ongoing destruction of the Macquarie Marshes. It must be remembered that these programs only returned a small portion of the water originally **removed from the Macquarie Marshes and the landholders who depend on its health and vitality to make their living.**

LACK OF COMPENSATION:

Prior to irrigation development, much of the water in the river flowed through the Marshes. Once the dam was completed, licenses were issued and the water was allocated to irrigation, with NO compensation for communities and businesses downstream, including unregulated irrigators whose livelihoods rely on these flows.
State and Federal governments commenced the buyback program from willing sellers, and irrigators on the regulated river received compensation and had their new on farm infrastructure heavily subsidised.

There is a long history of removing flows from the Lower Macquarie and allocating upstream.
This has happened through structures such as dams and regulators, and also operationally such as supplementary access, floodplain harvesting and the transfer of Planned Environmental Water to General Security.
These are just some examples of unregulated water being given to the regulated section, and in many cases this is the regulated sections **THIRD ALLOCATION** of this water before others have any access.

Our community has nothing to gain from the proposed regulating storage as the negative impacts, environmentally, economically and socially (the government's triple bottom line objective) will be hugely detrimental to the floodplain ecology and the RAMSAR listed wetland, grazing industry and the downstream unregulated irrigation industry, where they can only receive water at heights deliverable through tributary flows

Not to mention concerns for the continued connectivity with the Barwon River.

BUSINESS CASE POINTS:

The Business Case Study has to take into account the full effects of the structure, including all the capital costs and opportunity costs, and the revenue that would have been generated if the water had not been extracted or stored.
For example, a $50 million capital cost needs interest costs included and justification of that selected interest rate. An opportunity cost of that $50 million capital, as a re-regulator doesn't appreciate in value and is not saleable versus a tollway, building, port, bridge in Sydney etc...

EG: 5% interest = $2,500,000 + 5% capital gain each year = $5,000,000.00
Divided by 15000 meg = $333 per meg.

Add repairs & maintenance, staff expenses and regulatory control.
Then add downstream losses due to the changed flow regime.

If the yield of the regulator is 15gl per year, the end of system flow (Bells bridge gauge) decreases by 41megs per day average.
BUT, if the storage optimisation occurs and LTAA usage occurs, 26.3 gls will be removed from PLANNED ENVIRONMENTAL WATER, or 72 megs per day average at Carinda.
This will leave the 'exceedance flow' at Carinda Bell's Bridge receiving ZERO **'0**' monthly minimum flow for 60% of months.

The Median Exceedance Flow between 1939 and 1988 was approximately 200megs/day.
It will now be '**0**' - ie; six months of the year (median) will be ZERO '**0**'.

It could actually be 7.2 months of monthly mean flow. If worked on, a 'daily' mean flow could be much worse.

There has yet to be an economic study done below the irrigation industry in the Macquarie Floodplain. The only relevant study done in the Northern Murray-Darling Basin was produced by the MDBA for the Northern Basin Review, and it was on the Lower Balonne River.

Using this study indicatively, we believe an additional loss of 3% in grazing capacity and also an additional loss of 4% in earnings can be expected, leading to an additional $1,500,000.00 income/earnings loss within the grazing industry in the floodplain.

This earnings loss, when applied to a P:E ratio of 15:1 indicates a further capital loss of $22,500,000.00 in real terms over time.

Capital loss opportunity costs at 5% is $1,125,000.00 per year, divided by 15,000megs = $75.00. On this basis, MMELA members will lose $1,500,000.00 revenue per year, and for 15,000 megs, equates to $100.00 per meg just to the grazing industry.

This does not include the environmental loss, rainfall loss, or Barwon River loss.

MMELA REQUIREMENTS

While we welcome our inclusion in stakeholder meetings and WaterNSW's offer to visit and discuss our concerns further, it is beyond belief and unacceptable that WaterNSW would even consider the proposed weir without including the impact on the Macquarie Marshes.

Therefore we stipulate that the following requirements must be included in both the Environmental Assessment and the Business case for the proposed weir:

1. **Environmental assessment and approvals include a comprehensive ecological assessment, including the aquatic environment, the complete Macquarie Marsh system and the lower Macquarie down to the Barwon River.**
2. **The project must include a study into the proposed weir on the beef cattle grazing industry in the Marshes and floodplain as a result of water substitution effects from the removal of surplus flows or tributary flows from within the catchment, including stocking rates per ha. And earnings per ha compared with megalitres of water removed.**
3. **The project must include a study of opportunities for take by unregulated licence holders as a result of water substitution effects from the removal of surplus flows or tributary flows from within the catchment.**
4. **The project must include publishing of the historical use of tributary flows to fill water orders by WaterNSW in the regulated Macquarie above and below the proposed weir site.**
5. **The project must include possible changes to river management that could increase the opportunity for extraction by supplementary licence holders and floodplain harvesting.**
6. **The business case for the project must be made available for all stakeholders to see and must include the economic grazing study of the Marshes floodplain, and other community businesses all the way to the Barwon River.**

WaterNSW States that the regulating structure will contribute towards:
-Improving long-term water security
-Delivery efficiency
-Reduction in transmission losses
-supply reliability for region and industries

However, this regulating storage structure is actually perpetuating the transfer of wealth upstream at the expense of downstream environments, businesses and communities.

Awaiting your Reply

Regards

Garry Hall
MMELA President
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REFERENCE - SEARS

The DPIE Secretary's Environmental Assessment Requirements **(SEARS)** have the requirement to:

Include a thorough description of the existing environmental conditions and hydrological regime, including:

*Mapping of rivers, streams, wetlands, estuaries, and groundwater potentially impacted by the project.
*Floodplain ecosystems and ecological assets associated with all downstream river that will see altered flow.

Include a thorough assessment of the hydrological impacts of the proposed weir, including:

*An assessment of the impact of the project to the Environmental Flow Requirements downstream as stated in the relevant Long-Term Watering Plan (LTWP) prepared by DPIE EES as part of basin Plan requirements.
*Changes to environmental water availability, both regulated/licensed and unregulated/ rules-based sources of such water, specifically;

- Assessment of impacts to the volume, reliability and effectiveness of **Planned Environmental Water** in the catchment downstream of the work.
- Assessment of impact to volume, reliability, effectiveness or deliverability of **Held Environmental Water** assets in the catchment downstream of the works.
- Any water substitution effects of **the removal of surplus or tributary flows** removal from the catchment that may then require held or discretionary planned environmental water to make up the shortfall

REFERENCE:
PLANNED ENVIRONMENTAL WATER - UNREGULATED DEFINITION

Source:
DRAFT Water Sharing Plan for the Macquarie Bogan Unregulated Rivers Water Sources 2012 (amended 2019)
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Part 4 Planned environmental water provisions
Note. Notes. 1 This Part is made in accordance with sections 8, 8A and 20 of the Act. 2 Part 12 allows for amendments to be made to this Part.

15 General
This Part contains environmental water rules for the commitment, identification, establishment and maintenance of planned environmental water in these water sources.
Note. In accordance with the Act, planned environmental water is water that is committed by management plans for fundamental ecosystem health or other specified environmental purposes, either generally or at specified times or in specified circumstances and that cannot, to the extent committed, be taken or used for any other purpose.

16 Commitment and identification of planned environmental water
Water is committed and identified as planned environmental water in these water sources in the following ways:
(a) by reference to the commitment of the physical presence of water in the relevant water source,
(b) by reference to the long-term average annual commitment of water as planned environmental water, and
(c) by reference to 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.

17 Establishment and maintenance of planned environmental water
(1) PlannedThis Plan establishes planned environmental water is established in these water sources as follows:
(a) the physical presence of water resulting from the access rules specified in Division 2 of Part 8clause 53 of this Plan, Note. The rules in Division 2 of Part 8clause 53 of this Plan set flow levels below which the taking of water is not permitted. Some limited exemptions apply.
(b) the long-term average annual commitment of water as planned environmental water resulting from compliance with the long-term average annual extraction limit and long-term average sustainable diversion limit as specified in Division 1 of Part 6 of this Plan, and
(c) the water remaining after water has been taken under basic landholder rights and access licences, and any other rights under the Act in accordance with the rules specified in Parts 6 and 8 of this Plan.

REFERENCE:

PLANNED ENVIRONMENTAL WATER - <u>REGULATED DEFINITION</u>

DRAFT Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers Water Source 2016 (amended 2019)

Part 3 Planned environmental water provisions

Note. This Part is made in accordance with sections 8 and 20 of the Act.

12 General

This Part contains environmental water rules to commit, identify, establish and maintain planned environmental water.

Note. **In accordance with the Act, planned environmental water is water that is committed by management plans for fundamental ecosystem health or other specified environmental purposes, either generally or at specified times or in specified circumstances and that cannot, to the extent committed, be taken or used for any other purpose.**

13 Commitment and identification of planned environmental water

Water is committed and identified as planned environmental water by reference to the following:
(a) the commitment of the physical presence of water in the water source,
(b) the long-term average annual commitment of water as planned environmental water,
(c) 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.

14 Establishment and maintenance of planned environmental water

(1) Planned environmental water is established in the water source as follows:
(a) the physical presence of water resulting from the following:
(i) the Cudgegong environmental water allowance rules specified in Division 1 of Part 10,
Note. The rules in Division 1 of Part 10 establish an environmental water allowance in Windamere Dam which can be used to make releases for environmental purposes in the Cudgegong River downstream to Burrendong Dam.

(ii) the Macquarie environmental water allowance rules specified in clause Division 2 of Part 10,
Note. The rules in Division 2 of Part 10 establish an environmental water allowance in Burrendong Dam which can be used to make releases for environmental purposes in the Macquarie River downstream to the Macquarie Marshes.
(iii) the limitations on access to flows for supplementary water access licences specified in Division 3 of Part 8,

(b) the long-term average annual commitment of water as planned environmental water, resulting from compliance with the long-term average annual extraction limit and the cumulative annual extraction limit in Part 7,
(c) water remaining after water has been taken under basic landholder rights and access licences, in accordance with the rules in Part 7 and 8 of this Plan.
(2) The planned environmental water established under subclause (1) (a) is maintained by the environmental water allowance and release rules in Divisions 1 and 2 of Part 10 and the limitations on access to flows for supplementary water access licences in Division 3 of Part 8.
(3) The planned environmental water established under subclause (1) (b) is maintained by the rules specified in Part 7 of this Plan.
(4) The planned environmental water established under subclause (1) (c) is maintained by the rules specified in Parts 7 and 8 of this Plan.

Note. The rules in Part 7 of this Plan ensure that there will be water remaining in the water source over the long term by maintaining compliance with the long-term average annual extraction limit and the cumulative annual extraction limit. The rules in Part 7 also provide for lower available water determinations when either of the limits has been assessed to have been exceeded.