# QUAMBONE PASTORAL CO. PTY LTD

NSW

28th December 2017

Save the Murray YourSAy,
Level 12, State Administration Centre, 200 Victoria Square,
Adelaide SA 5000

Dear Sir/Madam

**RE: ROYAL COMMISSION INTO THE MURRAY DARLING BASIN -TERMS OF REFERENCE**

Congratulations on your announcement of a Royal Commission into the Murray Darling and its wide terms or reference. I look forward to making a full submission at the appropriate time. As I have for many years on the Macquarie Marshes and Macquarie Floodplain.

Many of the headline subjects I have outlined below could apply to other rivers in the Northern Basin. This list is not final, but one I want to ensure is included in your Royal Commission.

**1)** Floodplain Harvesting on the Macquarie Floodplain upstream of the Macquarie Marshes in the regulated section of the river is NOT licensed, not measured, not paid for, not in water sharing plans/ water resources plans, not in the 'Diversions' in the MDBA hydrology model but it is hidden in their "LOSSES".

**2)** Irrigation reservoirs/storages to store the above Floodplain harvested water has been funded by the commonwealth Government, Barnaby Joyce's office, Agriculture and Water Resources through water efficiency programs.

**3)** The above has been known by numerous staff from NSW Govt.staff, MDBA staff, Commonwealth Govt.staff, and I have informed every investigation that I can. I believe this is systemic corruption and malfeasance.

**4)** S.A.P. Stakeholder Advisory Panels are over represented by irrigators and government water officials MISREPRESENTING the actual bodies they are selected from. ie. wearing several 'Hats'

**5)** Water Pricing in NSW is set by IPART, the water market is not for water but rather for water Access licenses. This means water does not go necessarily to the highest value use.

**6)** The full "cost of loss" of water to downstream landowners/Communities has never ever been established, Thus, IPART, has not been able to establish a price for water reflecting costs thus implementing a User Pays and full cost recovery pricing mechanism cannot be achieved.

**7**) If pricing has not been done with full cost recovery, and user pays then how do we know water is going to the highest value use?

**8**) How do we know that some/all communities aren't subsidising the irrigation industry, thus breaking our Free Trade Agreements with China, Japan,USA etc.

**9)** The "before and after" water balances in the Macquarie.

a)How Much water is getting to the irrigation bay/field above the marshes?
b)How much water is getting to the Marshes?
c)How much water is getting to the Barwon River?

I suspect there will be more water in the irrigation bays/fields after the plan than before (including floodplain harvesting) and there will have been Billions of Dollars spent.

**10**) If the water in the irrigation Bay/field is the same or greater after the plan, then that makes the Socio Economic Study done on Warren NSW incorrect and I suspect corrupt and/or a case of malfeasance against the MDBA and or staff.

**11**) Over many years Water NSW (various names) has given different gauge readings for the same site.
GEO SCIENCE AUST. has water models, satellite photos, etc. of where water was flowing in the past, and present, in irrigation channels, floodplains, mine-sites etc. The two sources of information will be conflicting in some areas.
You will need all of your powers to get this information.

**12)** Finally I would like to invite you to our unique Macquarie Marshes and Floodplain to better understand what we are trying to save.

Yours Faithfully,
Dugald Bucknell

# QUAMBONE PASTORAL CO. PTY LTD

NSW

9th April 2018

Productivity Commission
Murray-Darling Basin Plan: Five Year Assessment
www.pc.gov.au/inquiries/current/basin-plan

Dear Commissioners

**RE: MURRAY-DARLING BASIN PLAN: FIVE YEAR ASSESSMENT**

I wish to thank you for the consultative meeting in Warren on 21st March and for coming to the Macquarie Marshes to understand the environment we are trying to preserve.

I have outlined below in point form, some of the areas we feel that most affect the long term health of the Marshes with supporting references.

1) The Macquarie Marshes are not over recovered, we can't meet environmental requirements with the water we have now, let alone less water. See SFI's (site flow indicators), actual end of system flows v's modelled.

2) Illegal take, floodplain harvesting, overland flows, storm water capture has not been licensed, measured or paid for in the regulated section of the Macquarie. These perpetrators should not be rewarded with licenses, but rather with proceeds of crime findings against them.

3) The above illegal take has been modelled (MDBA) as 'LOSSES' and decreased "INFLOW' rather than 'DIVERSIONS'. This has caused a large distortion of the Warren socio economic/jobs study, done by the MDBA.

4) The effect of removing illegal take, floodplain harvesting, overland flow from the Warren community will be many fold greater than the 'buybacks'

5) 30% of the efficiency recovered water was retained by the irrigator so was a gain in productivity.

6) The water market as it is today does not trade water but rather trades "water access licences" so to give an everyday example, this would be like going to a car auction and buying a Drivers Licence then driving away with a car with half a tank of petrol. With all other agricultural markets such as a sheep market, you buy sheep, a wool market you buy wool, a cattle market, you buy cattle, a fish market, you buy fish, a vegetable market, you buy vegetables, a land market you buy land, a house sale you buy a house , but NOT the water market, you buy a "Water Access Licence". The Australian People own the water and it is being given at a set price, regulated by bureaucrats, Hanlon types. This is Highway robbery of the national account

7) The Floodplain Grazing study of the Lower Balonne floodplain,(the MDBA modeller said we could use 'indicatively' in the Macquarie floodplain), indicates to return to "without development". Earnings per hectare would need to rise 29.41% AND carrying capacity would also need to rise 21.65%.
On a personal case, calculated over the last four financial years this averages $28201.81 per week income not received because of water removed upstream.

8) Full cost recovery, User pays and Impactor pays objectives and principles should be implemented and enforced. Where it is not fully enforced the intervening subsidy should be publicly announced as a opportunity budget cost in the state and commonwealth budgets.
see ref. below.

9) Subsidisation of irrigation is affecting 1.domestic market e.g irrigated barley crop has water input cost subsidised V's dryland barley crop resulting in distorted supply of barley in Australian market and lower prices. 2.Australia has Freetrade agreements with many countries, direct subsidy of input costs in the irrigation industry must be breaking these free trade agreements.

10) The trend in employment in agriculture in MDB 2001/6/11/16 shows decrease of 1943 jobs in the cotton growing industry. The loss of jobs in the grain, sheep and beef cattle farming industry was 19429 ten times the amount and not a political or bureaucratic whisper.see ABS below.

Yours faithfully

Dugald Bucknell

http://www.pc.gov.au/research/supporting/irrigation-externalities/irrigationexternalities.pdf

https://www.mdba.gov.au/sites/default/files/pubs/NB-social-economic-technical-overview final-Dec16.pdf - page 52-57.

*Water Act 2007 schedule 2-Basin water charging objectives and principles Part 1,2,3.

The Allocation of Costs Between Government and Users In ... - ACCC
https://www.accc.gov.au/.../Working%20paper%20no.%207%20-%20Cost%20allocati...

Table 16: Trend in employment in agriculture in MDB

| | Employed persons | | | | Change (%) | | | |
|---|---|---|---|---|---|---|---|---|
| | 2001 | 2006 | 2011 | 2016 | 2001-2006 | 2006-2011 | 2011-2016 | 2001-2016 |
| **Horticulture and fruit growing** | | | | | | | | |
| Plant, flower, seed growing | 1450 | 1000 | 693 | 1126 | -31.0 | -30.7 | 62.5 | -22.3 |
| Vegetable growing | 2540 | 2220 | 1959 | 1978 | -12.6 | -11.8 | 1.0 | -22.1 |
| Grape growing | 7950 | 5540 | 3781 | 3013 | -30.3 | -31.8 | -20.3 | -62.1 |
| Apple and pear growing | 1180 | 970 | 751 | 596 | -17.8 | -22.6 | -20.6 | -49.5 |
| Stone fruit growing | 840 | 670 | 516 | 360 | -20.2 | -23.0 | -30.2 | -57.1 |
| Other fruit growing | 3370 | 3020 | 2481 | 2391 | -10.4 | -17.8 | -3.6 | -29.1 |
| Other | 1880 | 1830 | 1805 | 2086 | -2.7 | -1.4 | 15.6 | 11.0 |
| **Total** | **19210** | **15250** | **11986** | **11550** | **-20.6** | **-21.4** | **-3.6** | **-39.9** |
| **Grain, sheep and beef cattle farming** | | | | | | | | |
| Grain growing | 10720 | 10680 | 10442 | 9824 | -0.4 | -2.2 | -5.9 | -8.4 |
| Grain-sheep and grain-beef cattle farming | 20120 | 16150 | 13726 | 7409 | -19.7 | -15.0 | -46.0 | -63.2 |
| Sheep-beef cattle farming | 8410 | 6170 | 5331 | 3374 | -26.6 | -13.6 | -36.7 | -59.9 |
| Sheep farming | 10690 | 9710 | 9130 | 9032 | -9.2 | -6.0 | -1.1 | -15.5 |
| Beef cattle farming | 12650 | 14660 | 13224 | 13481 | 15.9 | -9.8 | 1.9 | 6.6 |
| Other | 1310 | 400 | 1028 | 1351 | -69.5 | 157 | 31.4 | 3.1 |
| **Total** | **63900** | **57770** | **52881** | **44471** | **-9.6** | **-8.5** | **-15.9** | **-30.4** |
| **Dairy cattle farming** | 8860 | 6920 | 5065 | 5199 | -21.9 | -26.8 | 2.6 | -41.3 |
| **Poultry farming** | 1690 | 1440 | 1558 | 2070 | -14.8 | 8.2 | 32.9 | 22.5 |
| **Other livestock farming** | 3360 | 3690 | 3125 | 3073 | 9.8 | -15.3 | -1.7 | -8.5 |
| **Other crop growing** | | | | | | | | |
| Cotton growing | 2950 | 1700 | 1520 | 1007 | -42.4 | -10.6 | -33.8 | -65.9 |
| Other crop growing | 980 | 1110 | 575 | 525 | -15.6 | -48.2 | -8.7 | -45.3 |
| **Total** | **3930** | **2810** | **2095** | **1532** | **-28.5** | **-25.4** | **-26.9** | **-61.0** |

# QUAMBONE PASTORAL CO. PTY LTD

NSW

Mr Paul Morris
First Assistant Secretary, Water Division
Department of Agriculture and Water Resources
Australian Government
CANBERRA ACT 2

Dear Paul

**RE: MDBA NORTHERN BASIN REVIEW AMENDMENT CONCERNS**

Thank you for listening to our concerns last Wednesday, 8th March 2017, in Warren.

You asked if I could follow up with details about the Macquarie's "over recovery of water" and especially in regard to Warren Shire and socio economic effects. I was also pointing out the effects downstream for floodplain grazing and unregulated irrigation at Quambone/Carinda areas in the Coonamble Shire. In addition the effect of loss of rainfall east of the floodplains due to loss of evaporation causing loss of wheat yield potential and grazing potential.

Firstly I would like to comment on your handout "Progress of Water Recovery Towards Bridging the Gap to SDL's as at 31/12/2016".

In the Macquarie-Castlereagh the local target figure is 65 GL, this is not in the original 390GL Basin Plan (83GL for Macquarie) nor is it in the 320GL Northern Basin proposed amendments Plan (71GL for Macquarie). Also, if you look at the MDBA's"Hydrologic Modelling for the Northern Basin Review" page 42, you will find it has not been included in any modelled scenarios. As a result the whole process of public submissions and consultation has been neglected/overlooked. If 65GL is to be the target figure, then the whole process needs to be done again.

Moving on, the "Infrastructure Recovered Water", we both agreed that a slightly increased quantity of water was reaching the irrigator's crop. Thus a slight improvement had occurred in the Socio Economic area from this in the Warren Trangie, Narromine shires. The resultant 37.3GL recovered for the environment was a win/win situation although at an additional cost.

The MDBA's Commonwealth purchased water, 24.6GL, is from willing sellers and has socio economic effects. To balance this I was pointing out the water that has been introduced to the Warren, Trangie and Narromine Shires. This includes the State Governments Cobra mine water, 4700 MEGS HIGH security, the movement of unregulated water licenses upstream in the Marthaguy creek to join Macquarie irrigation country, the change in Macquarie river Operations management, such as 1) Changes in

supplementary pumping predicted flows 2) base flows have been lowered over time from around 4-500Megs per day down to 5-10 Megs per day, having two effects a) increasing general security in the dams, b) decreasing water in the marsh floodplain.

The introduction of floodplain harvesting, previously illegal, the quantities are unknown, not measured and not priced, one estimate of irrigation storage's is 130000 Megs. At the end of the drought last May 2016 all the storages were empty and Burrandong Dam was at 10-15%. It then rained, 20000 Megs (est.)of supplementary was pumped up to June 30th.

Then, this water year 30000 Megs (est.) of supplementary was pumped. All the irrigation storages were full in October 2016, thus 80000 Megs can only be explained as floodplain harvesting (that is 80GL) .N.B please check these figures as I am not able to verify them. This 80GL is direct loss to the Macquarie Marshes and downstream connected rivers. If you refer to Hydrologic modelling for the Northern Basin, end of system flows page 188, floodplain harvesting could occur every third year so an annualised figure could be 30GL.

Also some water on irrigation schemes such as "The Marthaguy Irrigation Scheme" was sold to the Commonwealth. Of this water some came from the Quambone community and is in the Coonamble Shire. This water should not be counted in loss of productive water in the Warren Shire and is of no socio-economic cost to Warren.

The majority of the Commonwealth MDBA purchased water was purchased from Twynam Pastoral at Buttabone Irrigation. There is irrigated cotton being grown on some of their fields at the moment, obviously no socio economic loss here.

As a result the MDBA Commonwealth purchased water has been more than re-aquired by the irrigators in the Warren, Narromine and Trangie Shires.

The remaining 'State Government Recoveries' 20.6 GL was purchased in 2008, some settled in early 2009. This is nearly three years before the draft Basin Plan was published (November 2011). This water cannot be used as recovered water by the MDBA or Commonwealth as that would be double accounting i.e; the environment would be 20.6 GL less water in the initial MDBA plan.

As a result of the above, at best, the total actual recovered water could be the infrastructure efficiency recovered water of 37.3 GL. Thus the MDBA is 28GL under recovered in the Macquarie.

Once again thank you for the opportunity to discuss this matter with the Taskforce. Please feel free to contact me in regard to this matter and any other matters regarding the Macquarie Marshes and Floodplain Grazing.

Yours faithfully

Dugald Bucknell

NB: We also discussed on the day the loss of evaporation on the floodplains and rivers downstream of the regulated irrigation industry and its effect on rainfall, temperature and climate change.

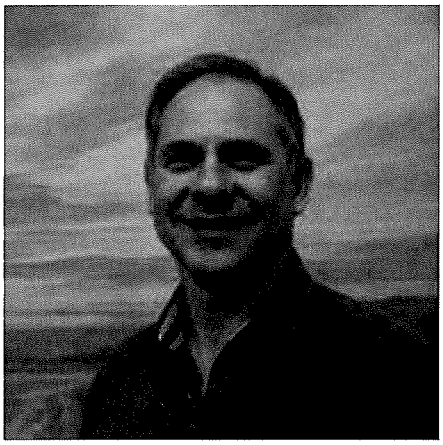
I have included a summary of a study done by the CSIRO (the full study you have to pay for) into Australian wheat yields potential loss, by overlaying a map of the MDBA's 'without development' water distribution and MDBA's 'Baseline Water' distribution creates many questions.

# Changing climate has stalled Australian wheat yields: study

January 25, 2017 6.17am AEDT

Fields of gold: Australia's wheat industry contributes more than A$5 billion to the economy each year. Wheat image from www.shutterstock.com

**Authors**



**Zvi Hochman** Senior Principal Research Scientist, Farming Systems, CSIRO

**David L. Gobbett** Spatial data analyst, CSIRO

**Heidi Horan** Cropping Systems Modeller, CSIRO

**Disclosure statement**
Zvi Hochman receives funding from Grains Research and Development Corporation (GRDC) and the National Australia Bank. He is a board director of Birchip Cropping Group Inc. (BCG) a not-for-profit agricultural research and extension organisation led by farmers from the Wimmera and Mallee regions of Victoria.
David Gobbett receives funding from the Grains Research and Development Corporation (GRDC), Sugar Research Australia (SRA), and Wine Australia through the Department of Agriculture and Water Resources Rural R&D for Profit Programme.
Heidi Horan receives funding from the Grains Research and Development Corporation (GRDC) and National Australia Bank.
**Partners**

Australia's wheat yields more than trebled during the first 90 years of the 20th century but have stalled since 1990. In research published today in Global Change Biology, we show that rising temperatures and reduced rainfall, in line with global climate change, are responsible for the shortfall.

This is a major concern for wheat farmers, the Australian economy and global food security as the climate continues to change. The wheat industry is typically worth more than A$5 billion per year – Australia's most valuable crop. Globally, food production needs to increase by at least 60% by 2050, and Australia is one of the world's biggest wheat exporters.

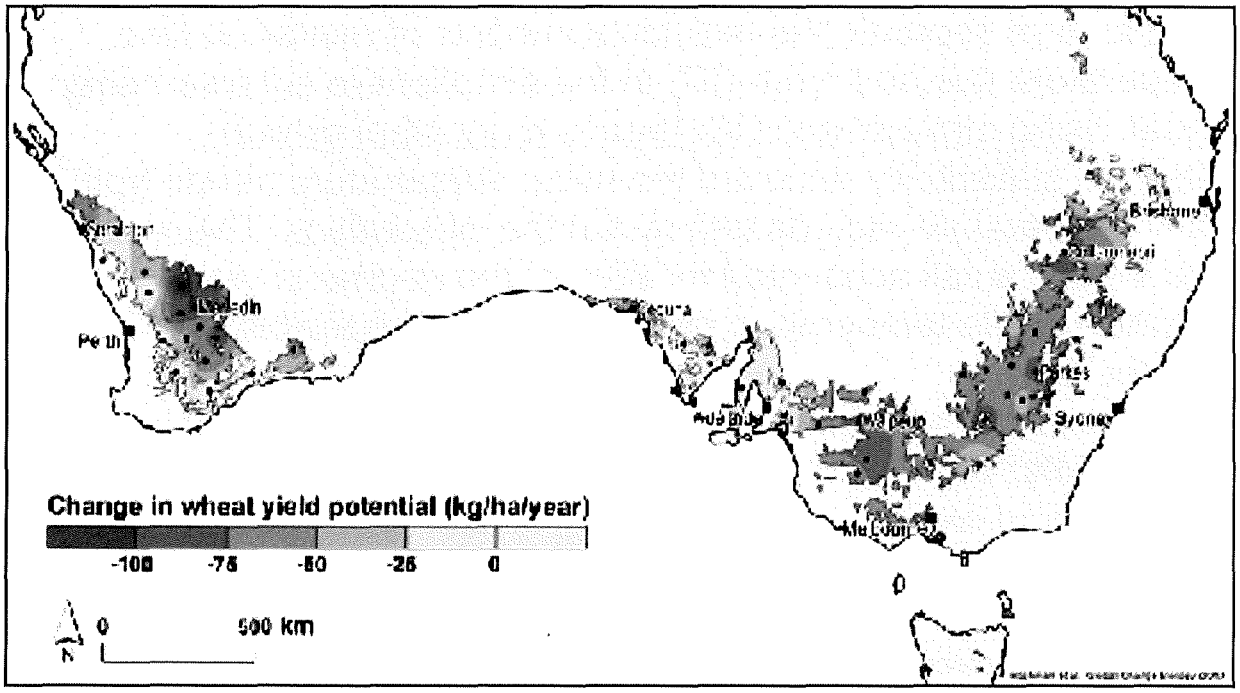
There is some good news, though. So far, despite poorer conditions for growing wheat, farmers have managed to improve farming practices and at least stabilise yields. The question is how long they can continue to do so.

## Worsening weather

While wheat yields have been largely the same over the 26 years from 1990 to 2015, potential yields have declined by 27% since 1990, from 4.4 tonnes per hectare to 3.2 tonnes per hectare.

Potential yields are the limit on what a wheat field can produce. This is determined by weather, soil type, the genetic potential of the best adapted wheat varieties and sustainable best practice. Farmers' actual yields are further restricted by economic considerations, attitude to risk, knowledge and other socio-economic factors.

While yield potential has declined overall, the trend has not been evenly distributed. While some areas have not suffered any decline, others have declined by up to 100kg per hectare each year.




The distribution of the annual change in wheat yield potential from 1990 to 2015. Each dot represents one of the 50 weather stations used in the study. David Gobbett, Zvi Hochman and Heidi Horan, Author provided

We found this decline in yield potential by investigating 50 high-quality weather stations located throughout Australia's wheat-growing areas.

Analysis of the weather data revealed that, on average, the amount of rain falling on growing crops declined by 2.8mm per season, or 28% over 26 years, while maximum daily temperatures increased by an average of 1.05°C.

To calculate the impact of these climate trends on potential wheat yields we applied a crop simulation model, APSIM, which has been thoroughly validated against field experiments in Australia, to the 50 weather stations.

# Climate variability or climate change?

There is strong evidence globally that increasing greenhouse gases are causing rises in temperature.

Recent studies have also attributed observed rainfall trends in our study region to anthropogenic climate change.

Statistically, the chance of observing the decline in yield potential over 50 weather stations and 26 years through random variability is less than one in 100 billion.

We can also separate the individual impacts of rainfall decline, temperature rise and more $CO_2$ in the atmosphere (all else being equal, rising atmospheric $CO_2$ means more plant growth).
First, we statistically removed the rising temperature trends from the daily temperature records and re-ran the simulations. This showed that lower rainfall accounted for 83% of the decline in yield potential, while temperature rise alone was responsible for 17% of the decline.
Next we re-ran our simulations with climate records, keeping $CO_2$ at 1990 levels. The $CO_2$ enrichment effect, whereby crop growth benefits from higher atmospheric $CO_2$ levels, prevented a further 4% decline relative to 1990 yields.
So the rising $CO_2$ levels provided a small benefit compared to the combined impact of rainfall and temperature trends.

# Closing the yield gap

Why then have actual yields remained steady when yield potential has declined by 27%? Here it is important to understand the concept of yield gaps, the difference between potential yields and farmers' actual yields.
An earlier study showed that between 1996 and 2010 Australia's wheat growers achieved 49% of their yield potential – so there was a 51% "yield gap" between what the fields could potentially produce and what farmers actually harvested.
Averaged out over a number of seasons, Australia's most productive farmers achieve about 80% of their yield potential. Globally, this is considered to be the ceiling for many crops.
Wheat farmers are closing the yield gap. From harvesting 38% of potential yields in 1990 this increased to 55% by 2015. This is why, despite the decrease in yield potential, actual yields have been stable.
Impressively, wheat growers have adopted advances in technology and adapted them to their needs. They have adopted improved varieties as well as improved practices, including reduced cultivation (or "tillage") of their land, controlled traffic to reduce soil compaction, integrated weed management and seasonally targeted fertiliser use. This has enabled them to keep pace with an increasingly challenging climate.

# What about the future?

Let's assume that the climate trend observed over the past 26 years continues at the same rate during the next 26 years, and that farmers continue to close the yield gap so that all farmers reach 80% of yield potential.

If this happens, we calculate that the national wheat yield will fall from the recent average of 1.74 tonnes per hectare to 1.55 tonnes per hectare in 2041. Such a future would be challenging for wheat producers, especially in more marginal areas with higher rates of decline in yield potential.

While total wheat production and therefore exports under this scenario will decrease, Australia can continue to contribute to future global food security through its agricultural research and development.

# QUAMBONE PASTORAL CO

NSW

28th August 2017

Ken Mathews Investigation
Email: contact@matthewsinvestigation.nsw.gov.au

**RE: INDEPENDENT REVIEW INTO ISSUES RAISED BY FOUR CORNERS 24.7.17**

Dear Sir

It was with long overdue relief that I watched Four Corners "Pumped... Who is benefiting from the billions spent on the Murray Darling" and to see a small proportion of the corruption, misconduct and maladministration in water management, DPI water and MDBA.

I thought grounds for a Royal Commission or a Judicial Inquiry, after all, 13 billion dollars, but no, just an inquiry. Well, at least I would be able to make a submission, as my family has for several generations, in an attempt to save the Macquarie Marshes and Floodplain grazing.

I would be able to outline:

- Brown paper bags etc to previous Premiers and Ministers
- The incorrect location of our storage dams
- The preferential treatment of receiving water licences
- The wrong location for the irrigation industry
- The inappropriate location of floodways through the irrigation industry
- The limitation of study areas/parameters thus allowing guidelines to be met
- The changing of single words just prior to printing, resulting in major changes in water sharing plans
- Changes in methodology of interpreting rules mid plan
- Having our environmental meetings with environment ministers or their representatives being watched over by water department staff
- That there has never ever been an economic study done below irrigation outlining effects to floodplain grazing on the Macquarie or connected rivers.
- That the MDBA did a grazing study on the Lower Balonne which indicatively means my property is losing $10,000.00 a week to upstream irrigators.
- That the longest dry spell between floods in the MDBA's hydrology model for the Macquarie will be 13.8 years sometime in the next 114 years. in other words, the Marshes have been studied, planned , modelled, adopted and legalised to disappear within the next 114 years.

- I could have pointed out that the submission's date for the recent Northern Basin Review had to be extended because the hydrology model hadn't been publicly released, so nobody could authentically have made a submission prior to that date, a sure way to see the beneficiaries of Hanlon's (or similar) drop boxes.
- The suspicious rulings by IPART water pricing, when considering all the costs of the irrigation industry aren't known.
- That we are meant to be a full cost recovery and user pays society.
- Australia has Free Trade agreements with Japan, Korea, China, and America amongst others, in which we are not allowed to subsidise farming, i.e.: cotton, wheat, barley, dairy, beef etc
- I could outline water/environment models which are currently being used, which are already failing ground truthing.
- I could point out the Government agencies, state and federal, that know about the estimated 1/200 000 megs that was unmeasured and not paid for and stored in reservoirs paid for by the Federal Government.

Alas, but when reading the terms of reference, Appendix A, I find that the parameters of your inquiry have to be within certain dates, on certain properties, and shown on Four Corners.

If my submission misses one (1) of the parameters it can be dismissed by the inquiry, a bureaucrat, a politician or the Government.

So my submission to you is the following:

1) These terms of reference and their authors should be referred to the ICAC.
2) The Inquiry's powers be increased dramatically.
3) The Terms of Reference be totally open.

Yours faithfully

Director
Quambone Pastoral Co. Pty Ltd

# QUAMBONE PASTORAL CO. PTY LTD

NSW

Basin Plan amendment submissions
Murray-Darling Basin Authority
GPO Box 2256
CANBERRA ACT 2601

20th February 2017

Dear Sir/Madam

RE: OBJECTION TO PROPOSED AMENDMENTS TO THE NORTHERN BASIN PLAN

I wish to object to the proposed amendments to THE BASIN PLAN, including the reduction from 390GL of recovered water. The only longterm satisfactory result is a sizeable dramatic increase in recovered water.

My reasons are as follows:

A. The following information has been omitted, hidden or manipulated:

1) The "on ground" SFI's (site specific flow indicators) in the Macquarie have not been met.

2) The "without development" readings have not been included on all diagrams, tables and graphs.

3) The "maximum dry periods between events" over the 114 year modelling period for the Macquarie in "Whole of north table A2" page174 - (hydrologic modelling for the northern basin review )(HR) are missing. (like the birds that breed in that dry period)

4) Figure5 HR page 27 "end of system flows" without development on the Macquarie is 870 GL. On the Macquarie water balance HR page 186 "without development" outflow is 760GL.

5) Figure 5HR page 27 “end of system flows” baseline on Macquarie is 640GL; On the Macquarie water balance HR page186 baseline outflow is 577 GL.

6) The two types of recovered water, BUYBACK or WATER EFFICIENCY, should be accounted for separately and diagramed, tabled and graphed separately on all occasions.

7) "Water Efficiency" recovered water should have a neutral status, as there has been no effective loss of irrigation production, jobs, local town purchases or other socio economic effects.

8) "BUY BACK" recovered water has had a capital dollars injection into those communities.

9) "BUY BACK" irrigation land can be returned to full cropping with increased area, with removal of headlands, roads and irrigation channels, thus retaining jobs, local town purchases and other socio economic effects.

10)There has never ever been a full economic study done on the effects of water extraction on downstream landholders, community and environment. This should still be done by local governments, state departments of land, water, agriculture, development, environment and treasury as well as federal government departments of agriculture, environment, development and treasury.

B. The undocumented subsidisation of the irrigation industry by downstream communities which is wealth transfer disguised as productivity.

11) A Macquarie floodplain grazing study needs to be completed, similar to the MDBA's Condamine Balonne grazing study. My accountant applied my business account figures to the Balonne grazing study and found that I have lost (due to up stream irrigation) over the last three years $361455, $593071, and $649,126. That is an average of $10000 per week profit, that I am sending up stream to the irrigators. A great subsidy from my family and the tax payers of Australia.

12) The loss of land asset capital value due to the above income loss (see no.11) using capitalisation lease rate of 5% is ~ 10 million dollars, thus over the Northern Basin is potentially Billions of dollars.

13) The above loss of unimproved capital value of land in the Macquarie floodplain as a result of the removal of water to extractive use irrigation land, where it is not valued for Local Government rating purposes, has meant for local government to achieve the same total $ rates income, all other rate payers have had increased rate payments, achieved through various mechanisms.

14) The above will apply to all shires in the Northern basin. (see no. 13)

15) I live in the Coonamble shire, as does about 25% of the Macquarie floodplain, it lies directly east of the Macquarie Marshes. Historically it receives most of the evaporation and rain that comes over from the marshes. It is most disappointing that a socio economic study was done everywhere else, but Coonamble, as it is totally non irrigation. This would have made for a good comparison with Warren for loss of productivity and jobs. This should be done before any more water is taken.

16)The loss of employment and employment opportunities in the Quambone, Carinda and Coonamble areas has markedly decreased our population and had flow on affects such as, the number of students at the Quambone school between 1976 and 1980 was as high as 90 students. The school now has 16 students. Coonamble used to have both sheep and cattle sale yards.Cattle fat sales once a week and at peak times twice a week during the 1970's and 80's along with store sales each month.Last year it had 7 sales in total for the year. Sheep sales stopped many years ago.

17)The loss of evaporation in the floodplain and especially the Macquarie Marshes has obviously lowered the quantity of cloud and thus rainfall, on average Coonamble grows 5kg of wheat per hectare per millimetre of rain. The unknown here is the loss of rainfall figure, but, the CSIRO released on Tuesday 14TH February 2017 a new study into wheat yield decrease in the last 26 years due to climate rainfall change.This needs to be incorporated into the Northern Basin Plan before any changes are made.

18)The change of flood and flow regime caused by upstream banks and water regulation has caused channelisation of the floodplain. the longterm cost of this is unknown, but will be substantial to rectify.

C. Government subsidies, funded by the public purse, through unpaid debts:

19) The subsidised cost of water including, but not limited to,- infrastructure such as dams, weirs, buildings. Regulated water users should be paying a commercial rent on these assets to the people of N.S.W

20)The cost of the MDBA Buybacks and efficiency programs, should be made a loan to the irrigation industry and charged at government interest rates. It has always been known by the irrigators, floodplain graziers and government that there has been overallocation and over extraction of water and yet these irrigators have continued to develop irrigation.

21) The cost of government subsidised programs such as,

-employment efficiency programs
-water storage building
-private irrigators infrastructure operators program
-modernisation of infrastructure program
-healthy floodplains project (used to develop floodplain harvesting)

At last count these programs are believed to have cost $320 million in the Macquarie over 50000 irrigated hectares, this is $6400 per hectare!!! All of this should be brought to account and paid for by the irrigation industry.

22) All government water employees and their associated costs- e.g cars.Including MDBA, Scientist and there programs etc. These costs have all been created because of water extraction.

23) In the mining industry to obtain a mining extraction license, they have to agree to restore and rehabilitate damaged country, and put down plans and deposit money towards future costs. This to save the public purse from huge unexpected expenses in the future when they go bankrupt and disappear overseas. This rule should be instigated for the water extraction industry as well.

D. Additional environmental damage:

24) The loss of environment on and off the floodplain. How many hectares of land have been degraded or moved down the desertification scale in the Macquarie, verses the widely spruced by Irrigators and The MDBA, 50000 hectares of irrigation that has been developed.

25)The loss of native wildlife, once the HR 100 year models have been implemented, due to dry spells (inadequate flooding) being longer than the breeding span of native wildlife.

26)The loss of resilience of native flora such as water grasses e.g Reeds and floodplain assisted grasses e.g. gum grass and lignum. this is already occurring since the change from natural flows and can be easily seen with this last flood event, which MDBA should be studying. Places on the lower Macquarie which should be very vibrant at the end of this flood event are thin spindly with reduced seed production and are much less capable of withstanding the next dry event.

E. The solution.

27) At Carinda the unregulated irrigation industry has converted low production sheep and goat country into high potential irrigation country, especially for cotton as it prefers hot dry and longer day length, as a result higher quality and higher yields are achievable. Water loss (evaporation and soakage) have been the perceived problem. This is over come now with the environments water allocation as "without development" the same amount of loss would have occurred naturally, so a percentage of the loss could be considered to be environmental. Obviously, adjustments would need to be made to pumping heights to allow correct Barwon-Darling connectivity.

28) Full cost recovery, as discussed above, of all regulated extracted water based on the quantity of water extracted which would be much higher than unregulated Extracted water also needing full cost recovery.

29) Figure 5 End of system flows page 27 of the HR hydrologic modelling review has long term average end of system flow difference between "without development and baseline" being 230 GL per year, this must be the total Human extracted use figure, the total of

regulated and unregulated water. Separate the two figures, for ease of debate, say the regulated is 200GL and the unregulated is 30GL. [adjust these for the Final Basin Plan].

Store in Burrendong dam three years supply of regulated water. Let the irrigators sort out there 200GL per year and that is all they are allowed as that is what they get at the moment. No supplementary, no floodplain harvesting, no tributary flows. Only dam water. This increases irrigators security to 100% and does not decrease there average long term extraction.
All the remaining water in the dam is for actively managed environmental water.
The flood mitigation zone (FMZ) is managed firstly for flood mitigation and secondly for the environment.
Tributary flows below Burrendong dam are unmanaged (mother nature) environment water.
The unregulated water users can continue to use 30 GL per year.
The environment would survive if the MDBA and governments would guarantee [640 GL plus Final basin plan] average "end of system flows".

Could you please confirm receipt of this submission.

Yours faithfully

Dugald Bucknell
Director
Quambone Pastoral Co.

NSW

QUAMBONE PASTORAL CO. PTY LTD

NSW

Water Renewal Taskforce
Department of Industry
GPO BOX 5477
SYDNEY NSW 2001

Dear Sir/Madam

I would like to make a combined submission to both the Floodplain Harvesting and Water Reform Consultation papers as there is only a submission address for the (WRAP) submissions, I am hoping you will forward this to the appropriate sub department section for floodplain harvesting.

WATER TAKE MEASUREMENT AND METERING

All extractions of water for irrigation, regulated, unregulated, floodplain harvesting, overland flow, irrigation storm water capture should be included as water take, and should also be included in hydrology model "diversions", not hidden in "losses" or decreased "inflows".
The rule should be "no measurement- no taking, break rule loose license."

All water orders should be shown on a publicly available data base, updated daily, showing when ordered, quantity, when started extracting, when finished extracting.

The punishment for breaking rules (stealing) water should be a multiple of the stolen quantity, removed from the whole irrigation industry, so that stealing irrigation water is stealing from irrigators not from the rest of the community.

A publicly released understandable acknowledgement of the amount and failings of the measurement and metering that has occurred under the management of government agencies since the first planning of major dams on each river. This will establish a BASELINE standard that in the future the department and public can have confidence of a measurable improvement.

TRANSPARENCY MEASURES

As the 'WRAP' process is a result of the Mathews inquiry, for transparency's sake, it should be acknowledged that the terms of reference for the Mathews inquiry were very limited precise and concise and as such the results, although amazingly confronting, must also be limited and not a complete cleansing of the wrongdoing.

As discussed above, the hiding of illegal, unmeasured, not paid for, not licensed Floodplain Harvesting, Overland flows in 'losses' and decreased 'inflows' has misled the socio economic studies done by the MDBA which have falsely included the above water as economic and jobs benefit for the Warren community. This false economic gain and jobs growth was knowingly promoted by the NSW government, Local government and there agencies. It is about time Water NSW corrected this transparent error.

A recent transparency problem of the department of Industry.
The department sent letters out to "customers" titled,'Conditions of Water Licenses and Approvals', the date of the letter was 05/02/2018. My letter had obvious mistakes in it, so I was required to make a submission within 28 days of the date of the letter. The problem is the postage stamp date on the outside of the letter is 16/03/2018, eleven days after the closing date for submissions. (photos available if required)
The transparency will be to see the punishment/cover-up in the department. Will it be like floodplain harvesting, given a bonus, or like the rest of the downstream community, punished? We shall look forward to a public announcement.

BETTER MANAGEMENT OF ENVIRONMENTAL WATER.
Your department and its predecessor are the creators of the damaged environment. To suggest you fix it is a joke and will not happen. The best solution is the removal of all your responsibilities except irrigation and create a new department of sustainability in charge of water, air and soil.

IMPLEMENTING THE NSW FLOODPLAIN HARVESTING POLICY.
Floodplain harvesting, overland flow captured water was announced by Nathan Reese when he was Water Minister in about July 2008. Not to suggest Nathan Reese was corrupt, but there was two very strong dominating politicians who have since been found to be guilty of corruption. Up to that point floodplain harvesting was not licensed, not measured not paid for, and theft. Since that announcement it is still not licensed, not measured and not paid for. It seems completely unjust to reward these thieves with licenses when they should be punished and have profits from crime findings against them.

For transparency, a summary of the estimated floodplain harvesting and storage reservoirs on each river should be publicly available so that future improvements can be measured and quantities and values of unlicensed take can be recognised.

The Australian climate can be summarised as “droughts and flooding rains” so to split the community and give one of those selected communities (irrigators) all the floods and the other part of the community (downstream of irrigators) all the droughts seems a strange way of sharing our climate.
This is demonstrated by giving unlimited carryover and 500% annual usage, when in the Macquarie the average time between dam spills is 3 years and the maximum about 5 years. This will mean over time, that the reliability of floodplain harvested water will be 100% while general security water has been approximately 30% over recent years. The result will be that people who have stolen unlicensed water in the past now have the most reliable water in the Macquarie valley and the downstream grazing communities who need drought breaking rain will live in perpetual drought.

Yours faithfully

Dugald Bucknell
Director
Quambone Pastoral Co.

Macquarie Marshes Environmental Landholders Association

Published by Justine Bucknell · 19 March ·

At the NSW Water WRAP (Water Reform Action Plan) consultation meeting on 16th March 2018 in Dubbo the subject of FLOODPLAIN HARVESTING in the Macquarie Valley Regulated River was discussed.
The Department and the MDBA acknowledged that Floodplain Harvesting is occurring and that it is unlicensed, not measured and not paid for, although the Department vehemently stated that it is not stealing (theft) because there is an 'element' of floodplain harvesting in the Water Sharing Plan and the NSW Government has not 'explicitly' made a law stating that Floodplain Harvesting is illegal. Thus the Department maintains that it must be legal even though it is not licensed.
They also acknowledged that Floodplain harvested water is not in the DIVERSIONS column but rather in the LOSS column in the MDBA Hydrology models. Also overland flow captured water is not included in DIVERSIONS but as a decrease in the INFLOW column of the hydrology models.
The above information potentially has huge implications for all studies done by the MDBA and NSW Water.
We need a Royal Commission into Water in NSW.

DPI Water
Macquarie-Castlereagh WRP
PO Box 2213 Dangar NSW 2309
macquarie-castlereagh.sw.wrp@dpi.nsw.gov.au

**Submission to Macquarie-Castlereagh Water Resource Plan - Status and Issues Paper**

Dear Sir/Madam

My family and I live at Quambone Station, Quambone. We operate a cattle grazing operation that covers approximately 20,000 hectares, and comprises land in and beside the Macquarie floodplain. Our family has owned, operated and lived on Quambone Station for 4 generations, since 1912.

Much of our country is dependent on flood plain inundation for its natural ecological sustainability and for us to meet our marginal costs of production. We have seen enormous reductions in the natural water flow over our country as a result of unsustainable, and ever increasing, water extraction since the 1980s. This has resulted in substantial economic loss and devastating damage to the natural ecology of our country.

We welcome the opportunity to provide comments on the DPI Water Status and Issues Paper ('the paper') relating to the development of the Macquarie-Castlereagh Water Resource Plan (surface water).

**Stakeholder Advisory Panel - floodplain grazier, cropping and horticultural representation**

We note that the paper calls for stakeholder engagement. However, while the paper notes that 80% of the catchment is used for grazing, cropping and horticulture, none of these industries, nor the people in them, are recognised as stakeholders in the MCWR plan.

As you know, water is not an unlimited resource and upstream diversion results in less water for downstream users. The extraction of water for water access licence holders, and for the environment, and for town supplies, comes by diverting water from natural water flows over floodplains. The Stakeholder Advisory Panel (SAP) currently excludes representation of people who have, in many cases, lived for multiple generations and over 100 years on land that depends on water to support lives, ecology and livelihoods. Fair government should ensure that these people are represented.

The fact that paragraph 2.2 of the status and issues paper does not even mention grazing, cropping and horticulture in the "Beneficial Uses of Water resources",

demonstrates that without representation on the SAP, there will not be fair consideration of the concerns of these stakeholders.

***Recommendation 1: That the Stakeholder Advisory Panel include representation from grazing, cropping and horticultural interests representative of the catchment area occupied by these industries (80%).***
***Note - this representation must be by parties that are not conflicted via having an interest in water access licences.***

**Baseline Assessment of Effect of Existing Water Extraction required before principles pre-determined**

The status and issues paper states that it is "based on principles set out in the Murray Darling Basin Plan 2012, together with principles set out by the NSW Government." However, there has been no studies undertaken of the effect of extracted water by licence holders on other stake-holders, such as floodplain grazing enterprises downstream. In the absence of such a study, it is impossible to assess whether the existing water licensing arrangements are beneficial or detrimental to the entire community within the Murray Darling Basin, the people of NSW and Australia. Moreover, the costs to those that have suffered from lower water flows (ie downstream water users from upstream access licence holders) has not been considered.

However, the existing principles of the plan already state that some interest groups have a privileged position of having "no adverse impacts", or "no net reduction". The Government's responsibility to ensure that limited public goods are not appropriated and diverted to benefit a particular group of people cannot be met if the Government has made no assessment of the costs of diverting water.

Such a study should assess the productive capacity of the downstream country that received natural water flows prior to development/water licencing, and implied asset value if that productive capacity had been maintained (rather than be starved of water). The study should assess the current productive capacity of such country (taking into account the lower water availability as a result of upstream extractions). The study should also budget the economic effect of any new plan on downstream floodplain graziers.

The Murray-Darling Basin Authority has demonstrated that such a plan is entirely feasible (having completed a floodplain grazing study for the Condamine-Balonne). It is not reasonable for the principles in the MCWR plan to be determined in the absence of this information.

Such a plan would enable the community to determine the extent to which water licensing is merely the diversion of an economic benefit from one group to another,

rather than the creation of a net benefit to the people of NSW (at the cost of environmental degradation).

Additionally, it is currently impossible to determine full cost recovery for water (as the full costs have not been assessed). This must also be required so that pricing of extracted water can be correctly calculated so that the user pays and full cost recovery principles can be applied.

The Macquarie-Cudgegong regulated WSP has already been in place since 2004 and Burrendong Dam has been in place since 1967. However, there has been no Government assessment on the negative impact of water extraction on grazing operations downstream. It is not reasonable, scientifically, socially or economically, nor consistent with the objectives of "providing for a healthy working Basin in the future", to have principles that state that "there will be no adverse impacts on water available to water licence access holders", without considering the negative impact (economically, socially and environmentally) on the areas that used to receive this water, prior to its extraction upstream.

***Recommendation 2: That the environmental, economic and social impacts of upstream water extraction on areas that received natural flooding (prior to the extraction of water for irrigation) down the entire Macquarie River and Floodplain downstream into the Barwon-Darling, be independently assessed and released publicly, prior to the Principles of the Plan being adopted.***

**<u>Additional Principles</u>**

As stakeholders who have seen natural floodwaters appropriated (without compensation), over a 50 year period, we have suffered huge economic loss.

We note that the following additional principles are only extending the same protections to downstream stakeholders, as are currently being offered under the plan to water access holders. Already, these downstream users have seen their water supplies drastically cut as a result of upstream water extraction.

The aim of the water reform process, including the initial development of water sharing plans (WSP) in NSW and the subsequent Federal legislation for a basin-wide plan, has been to redress the over allocation of consumptive water. However, the WRP principles regarding minimising change for WSPs over the 10 year period, and having no adverse impacts on water access licence holders is inconsistent with this.

***Recommendation 3: We consider that three additional principles in the Basin Plan are also critical considerations:***

- ***'A water resource plan must be prepared having regard to whether it is necessary for it to include rules which ensure that the operation of the plan***

***provides for natural flooding over pastoral areas, to ensure the economic, and environmental sustainability of natural floodplains."***

- ***'A water resource plan must be prepared to ensure that there are no adverse impacts on water available to graziers, croppers and horticulturalists on natural floodplains".***
- ***A water resource plan should consider the economic costs of upstream water extraction on downstream water users and, if necessary, provide for a model to make good for the economic transfer of wealth from one water user to another.***

**Environmental Assessment of prior models**

The paper fails to recognise that the Macquarie-Castlereagh catchment supports (or did prior to the over allocation of water licences) the Macquarie Marshes, which is one of the few remaining sites in Australia to support large breeding colonies of native birds.

The status and issues paper does not contain an assessment of the accuracy of modelled water flow rates - heights and flood expectancies/duration that underpinned previous water sharing plans. Prior to the creation of a new plan, the accuracy of prior models compared to actuals needs to be assessed. Such an assessment needs to consider whether the the models have accurately predicted water flows, particularly in relation to the life expectancy and breeding time frames of representative wildlife animals/birds/bugs/ and soil microbes etc.

***Recommendation 4: Assess the accuracy of prior models (of water flows, and the effect on the environment, prior to establishing a new plan***

**Uncontrolled Flows**

Based on our experience, the department does not have an adequate appreciation of the enormous volumes of water that are extracted via floodplain harvesting. Continued floodplain harvesting will have a devastating impact on downstream users. Moreover, the grant of floodplain harvesting licences, without a corresponding reduction in water access licences, will only mean downstream users of water (i.e. those that receive natural flows) are even further punished. This is contradictory to the MDBA goals of returning water to the environment.

***Recommendation 5: That the plan require specific removal of any floodplain harvesting structures, and if not removed within a 2 year period, that Government Authorities take remedial action (in addition to applying financial penalties).***

**EFRG**

We consider that there is a untenable conflict of interest for water access licence holders (above the designated floodplain) holding positions on the the Macquarie EFRG. We do not support any change to the function of the EFRG, however, we

believe that the proper functioning of the EFRG is compromised when its membership includes persons with interests in water access licence above the designated floodplain.

***Recommendation 6: Membership criteria of EFRG to exclude persons with upstream conflicts of interest.***

**Translucent flow trigger**

We support the removal of the translucent sub account so that all environmental water releases can occur having regard to the environmental needs downstream rather than an an upstream trigger. Additionally, the maximum flow triggers for environmental flows is problematic as it creates the potential for litigation, and means that environmental needs are always subverted to water access licence holders - which contradicts the goals of the MDBA.

***Recommendation 7: Remove the translucent sub account***

**End of system flow target**

We support a variable end of system flow target because the entire environment, including our grazing operation requires inundation and dry periods as part of the natural environment.

***Recommendation 8: introduce a variable end of system flow target.***

**Supplementary access triggers**

We support an increase in supplementary access triggers because it is the only water that can mimic the natural environment (i.e. because it is below the dam). Additionally, there should be low flow protection. That is, access licence water should not be extracted from tributary flows below supplementary trigger flow levels because this is critical for drought-support flora on riverbanks and resilience of plant species on riverbanks.

***Recommendation 9: increase supplementary access triggers combined with low flow protection***

**Replenishment flows and supplementary triggers**

On multiple occasions, supplementary water has been given when all stock and domestic, and replenishment flows have not been met. We support rules that stock & domestic and replenishment flows must be fully met prior to allowing supplementary water to be extracted. These rules have not been applied.

***Recommendation 10: breach reporting by the river operator of any rules that have not been applied be part of the plan.***

**Flood mitigation zone rules**

We do not support any proposal to change the operating rules of the flood mitigation zone, for obvious reasons. this simply amounts to increasing extraction from the river system, when it is already overallocated and is not consistent with the principles of the Basin Plan.

***Recommendation 11: do not change the rules for the flood mitigation zone.***

**No support for reduction in EWA**

We strongly object to any consideration of a reduction in the EWA or the EWA shares. We depend on this water and without it our land is unable to support livestock and therefore a reduction would cause us even further severe financial hardship. Additionally, the ecological welfare of the river system and floodplains have been enormously damaged as it stands, and a reduction in the EWA will exacerbate this.

***Recommendation 12: Do not reduce EWA***

**Increased transparency in water use.**

The water is a community resource and the community, particularly those downstream who no longer receive their natural water flows should be able to see how much water is extracted by each water access licence user at all times. This should be updated weekly so that the community has full transparency. Transparency in the allocation of public goods is a basic principle of good governance. Increasing transparency will, over the longer term, improve trust in the plan.

***Recommendation 13: that a fully interactive, transparent, publicly available website that shows every extraction from the river system be created and maintained by the Department as part of the plan.***

**Climate impact on Water Cycle of Greater NSW**

There has been a significantly greater understanding in the last few decades of man-induced climate change. It is not unreasonable to posit that the damming of the Macquarie River and the associated reduction in natural flooding throughout the Murray Darling Basin has a significant impact on the rainfall and water cycle of all of NSW east of the Great Dividing Range. Given the importance of the agricultural sector to NSW, a full climate study of the impacts of the disruption to the natural water cycle of evaporation, condensation, cloud, rain, runoff, riverflows, needs to be

undertaken to assess whether the enormous reduction in natural floodwater is causing long-term damage to the ecology of much of NSW, and the associated economic impact on its residents.

***Recommendation 14: undertake a complete climate study of the effect of the damming and water licensing regime on the rainfall and water cycle of greater NSW***

**Social Benefits from Increasing Stock and Domestic Entitlements**

Communities and towns that are in the lower floodplains have collapsed in population, employment opportunities and economic wealth creation for business owners. We support an increase in the domestic and stock entitlements to undo some of the damage that has been incurred in these communities as a result of water transfers upstream to large license holders. This water should not reduce the environmental water flow, as this is the little water that makes its way to the lower floodplains. What is required is more water downstream, rather than a renaming of the category under which it is not extracted from the river system.

Water has not been shared equitably in the Macquarie River System. An increase in stock and domestic entitlement would go some small way to addressing this.

***Recommendation 15: increase stock and domestic entitlements for downstream users for social cohesion.***

**Research required to meet the Objectives of the Plan**

To assess whether the existing, and any new, Basin Plan meets the objective of providing for a healthy working Basin into the future, and the net benefit or cost of the Plan, there must be an assessment of the following 4 questions:

1. The number of hectares developed/benefited (50,000 hectares) as opposed to the number of hectares degraded (unknown).
2. The number of people that have been enriched with greater access to water as opposed to the number of people dispossessed of water.
3. The extent of any net economic benefit (having regard to an assessment of the economic losses downstream as a result of the extraction of water from the system).
4. The environmental costs of water extraction on the entire downstream river system, floodplains and greater NSW'
5. The social costs of transferring water away from downstream areas and the dislocation of those communities

***Recommendation 16: a complete economic, environmental and social cost study into the affect of water extraction on downstream environments***

We note that DPI Water states that it will acknowledge all submissions in writing, and we would appreciate a response to the issues raised in our submission.

Yours faithfully

Dugald Bucknell

NSW

NSW

RE: YOU CAN'T PROCEED TO THE FUTURE WITHOUT KNOWING WHERE YOU HAVE BEEN FOR YOU MAY BE PROCEEDING TO THE PAST
-THE MURRAY-DARLING BASIN PLAN-

John Howard realised there was an enormous problem with our river systems especially the Murray Darling Basin.
Too much water was being taken out and not enough water was being left behind to maintain the river, the environment and downstream communities. Simple, stop the deterioration (the Plan) then do the work to find out what, where, when and how it has gone wrong and fix it, in the National Interest for future generations, (The Amendments). The Labour Party Prime Minister, Julia Gillard, to her credit, with bipartisan support eventually passed the necessary laws.
This is what gave life to the MDBA. This was their assignment.

We have now received their assignment with a cover note (Media Release dated 16.2.2018) and it is up to us, the Australian people, the Senate and House of Representatives to mark it.
You can't proceed to the future without knowing where you have been, for you may be proceeding to the past.
So the logical starting point is to find out what, where, when and how it has gone so wrong. We need to know all the assets (Natural and man made) their current dollar value where applicable, such as dams, weirs, staff building, department staff, scientific studies, wetlands, floodplain grazing, aboriginal community assets, town water, evaporation for water cycle, environment, stock and domestic, irrigation development, town community, socio economic study in irrigation area and below irrigation, then the hydrology studies, ie, how much water is caught in the catchment and its distribution, who is taking what and is it legal or not, EOS flows (similar to the hydrology model but correct).

Next we need the rules that have been applied, nice and simple, just like in the driver's licence handbook, if one department can do it so that millions of people can understand and pass it, then so can another department.

Then after all the information is collected a plan for the future can be made for highly capitalised, productive, correctly located, secure, consistent regular water supplied irrigation industry where full cost recovery and full user pays can apply, with a water market that sells water, as opposed to water access licences, that is fully transparent with a reserve price reflective of all the combined associated cost of the extraction of irrigation water, ie, rental on infrastructure, staff cost, scientific studies, downstream economic damage, cost of programs downstream to maintain environment.

Once this is done the cost to benefit ratio will become self evident to all. That is, irrigation is profitable after all costs thus is better for the nation or downstream community is more profitable thus is better for the nation as a whole.
I suspect, if done properly the irrigation industry will move downstream (as opposed to currently moving upstream) as the costs associated with water purchases downstream will be cheaper thus their businesses will be more profitable.

Now for the marking of the MDBP assignment. Lets start with the cover note. We have the catch words and phrases; Balance, natural resources, future generations, self-evidently good, vast and vital, balance fiercely competing interest, visionary, science led evidence driven, thorough research, extensive consultation, peer reviewed, independent experts, toolkit, great credit.

Yes, it is very obvious the MDBA can talk the talk, but can they walk the walk?

There are two things about the Media Statement which reveal the real situation. Firstly, the Media Statement itself was released to selected Media, not published on the MDBA website, Facebook etc for the whole community to see, but rather a selected captured audience to gain the maximum value.

This has been a consistent thread for the MDBA for example; The Hydrology Model was released to irrigators months prior to the submissions closing date but for the rest it wasn't released until it was nearly submission closing time thus closing date had to be extended. The dry spell analysis for the Macquarie Marshes indicating years between bird breeding events of 13.8 years which was presented by Susan Madden in Dubbo, now can't be found.

Floodplain Harvesting through out all the rivers, both regulated and unregulated which you have clearly admitted, but have hidden in "LOSS" rather than "DIVERSION". The changed "INFLOW" figures for each scenario has never been explained, but, obviously means water is going somewhere other than the "WITHOUT DEVELOPMENT"scenario.
The Socio Economic study of cotton irrigation towns ,but not the same Socio Economic study of downstream of those same towns, which if done properly, including floodplain harvesting "LOSS" water, would have shown vastly different outcomes.
Why not the full costing for the delivery of water including all costs, including for example, infrastructure at current market value rather than depreciated value, all staff and associated cost, all scientific economic studies so that full cost recovery and full user pays policy can be implemented so that as a result Australia can comply with international Free Trade Agreements rather than subsidising irrigation.

Why not an economic study for the best location for the irrigation industry from a state and national perspective rather than from an individual perspective as an example placing an irrigation area in a location where say 1 sheep to the hectare exists as opposed to 2.5 tonne wheat crop to the hectare. This would increase the National GDP and employment considerably.

There has never been a Floodplain Grazing socio economic study of downstream irrigation area done by the NSW Government, thus as a result it was not ever known whether irrigation is a positive for State GDP or not. The MDBA to their credit did one study, "Potential Indirect Benefits of Water Recovery for Floodplain Grazing". This was done on one section of one river and it is indicatively devastating for all communities below irrigation.

This study shows to return to "WITHOUT DEVELOPMENT", earnings per hectare would need to rise 29.41% AND carrying capacity would also rise 21.62%.
On a personal case, calculated over the last four financial years this averages $28,201.81 per week income not received because of water removed upstream.

The water market as it is today does not trade water but rather provides "water access licences" so to give an everyday example, this would be like going to a car auction and buying a Drivers Licence then driving away with a car with half a tank of petrol. With all other agricultural markets such as a sheep market, you buy sheep, a wool market you buy wool, a cattle market, you buy cattle, a fish market, you buy fish, a vegetable market, you buy vegetables, a land market you buy land, a house sale you buy a house , but NOT the water market, you buy a "Water Access Licence".

The Australian People own the water and it is being given at a set price, regulated by bureaucrats, Hanlon types. This is Highway robbery of the National Account.

If strong scientific evidence and expert judgement are being used to obtain an unknown result then why have hard working dedicated staff/contractors and Board Members with dissenting views been weeded out of the MDBA? These staff are now, many working voluntarily, pointing out huge holes in the Plan, which seemed to be pre determined before the science.

There are actually so few changes being proposed that one must observe that the MDBA is giving a ringing endorsement for the 50 plus years of water management of the Department of Industry, Water NSW (20 name changes in 13 years) and all its predecessors. Water NSW must have, without science, economic studies or community consultation got every decision correct. I think not.

The original John Howard idea has been hijacked by the bureaucracy so that their previous mismanagement can be covered up and to maintain control of water for their selected client base.

Now for the second item of the media statement which reveals the real situation.

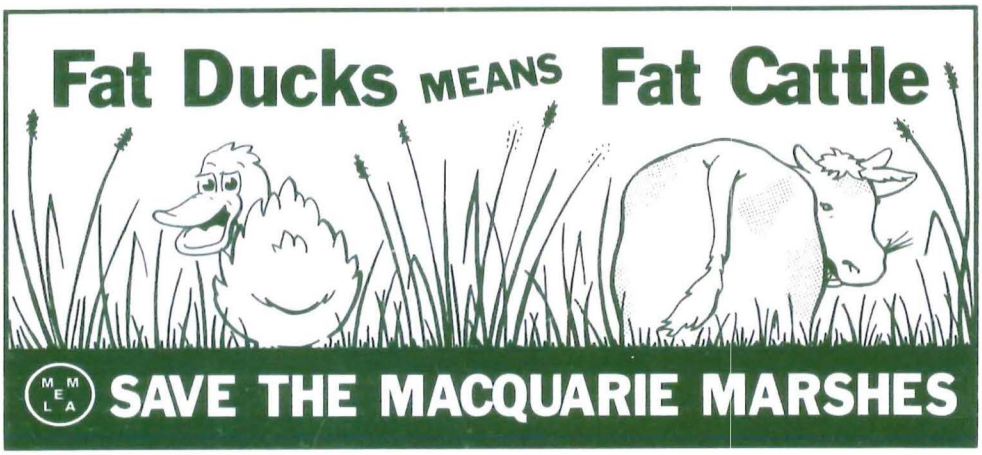
"We must remember that the Basin Plan arose from an urgent need to protect the future of the Basin System and the communities that depend on it".
A Royal Commission is needed to stop the theft, corruption, malfeasance, mismanagement of the Murray-Darling by State and Commonwealth bodies and large irrigators and their lobbyists.

PS - The mark for the assignment is FAIL

# MACQUARIE MARSHES ENVIRONMENTAL LANDHOLDERS ASSOCIATION

# Beef Productivity of the Macquarie Marshes

*Photo courtesy of Donna Veech*

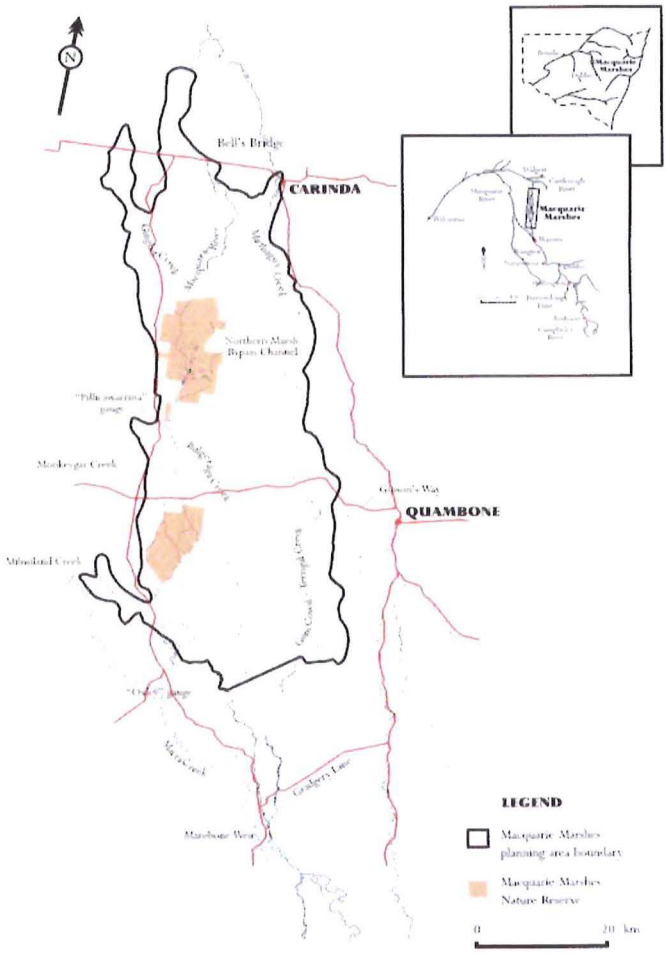


# INTRODUCTION

The Macquarie Marshes is a large semi permanent, flow through wetland on the lower end of the Macquarie River in central west 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 that supports an extensive agricultural industry, predominantly beef cattle production. Much of this land has been held in families for several generations and the property owners have an extraordinary knowledge and understanding of all aspects of the Macquarie Marshes.

The Macquarie Marshes were first settled in the 1830s and have reliably and sustainably supported beef cattle production from then until the Macquarie River was heavily regulated in the 1970s. Following regulation the beef cattle industry continues to be part of the Macquarie Marshes but landholders no longer have the security of reliability that they had prior to regulation of the river.

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 (Kingford & Auld 2000). The majority of the colonies are situated on privately owned land where landholders have looked after 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 the Macquarie Marshes Environmental Landholders Association (MMELA) and the majority of landholders are acutely aware of the environmental needs of the wetland and undertake appropriate management to ensure environmental assets are not compromised while undertaking sustainable beef production.




The Macquarie Marshes Nature Reserve, U Block and "Wilgara" Wetland 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). It is the responsibility of the whole community, including State and Federal Governments and the local community to ensure management of the wetland does not comprise values set out in the above mentioned agreements.

It is an accepted fact that the wetland and floodplain areas of the Macquarie Marshes do not respond as well to rain as the land outside the Marsh area. The majority of the vegetation species of the Macquarie Marshes are reliant on periodic flooding to thrive and provide both fodder for cattle and feed, shelter and habitat for native flora and fauna. If you take away vital flood water you vastly reduce plants' vigour and resilience and average or below average rainfall does not provide the nutrients or the inundation duration needed by these plants to flourish.

# Flooding

Extract from *Jenkins, K.M., Asmus, M., Ryder, D., and Wolfenden, B.J. 2004. Fish and macroinvertebrate communities in the Macquarie Marshes in the winter and spring of 2003*

"Under natural flow conditions the Macquarie Marshes was a renowned waterbird habitat and considered one of the most important drought refuges for waterbirds in NSW (papers referred to in Kingsford and Thomas 1995 from 1954, 1957, etc). During floods the floodplain and creeks were thick with aquatic macrophytes, such that it was impossible to use an outboard motor (Landholder anecdotal records and photographs). The Macquarie Marshes contained 42,448 ha of river red gum woodland and forest in 1949, one of the most extensive stands in Australia (Kidson *et al.* 2000a, b). The extremely high productivity of the Macquarie Marshes, as expressed by waterbirds, macrophytes and river red gum, is likely linked to the high frequency of flooding. For example, floods were predicted to occur naturally every 1.07 years in floodplain habitats with river red gum forests (ie. green zone), every 1.44 years in floodplain habitats with river red gum woodland (ie. yellow zone) and every 1.8 years in coolibah floodplain (ie. red zone) (Table 1, Brereton *et al.* 2000). The main channels that dissected the floodplain, (Macquarie River, Monkeygar Creek and Bulgeraga Creek) received small floods at least once a year and were seldom dry (MMMC landholder records 2004).

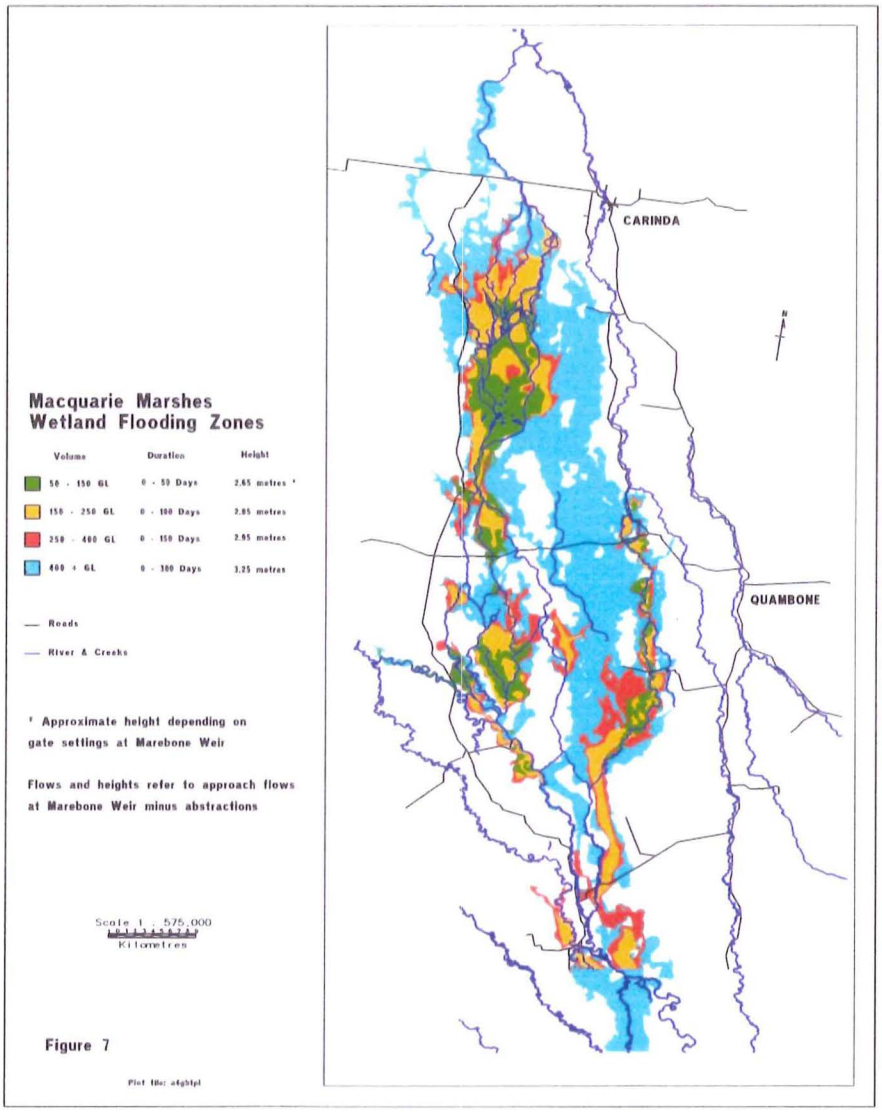



Figure 7

**Table 1.** Vegetation type and flood frequency in 5 flood zones described for the Macquarie Marshes under modelled natural flow conditions (Brereton *et al.* 2000).

| Flood zones | Vegetation type in flood zones | Natural flood frequency |
|---|---|---|
| Purple | phragmites, cumbungi, water couch, mixed marsh | Every 1.00 years |
| Green | phragmites, cumbungi, water couch, mixed marsh and river red gum forests | Every 1.07 years |
| Yellow | The above plus river red gum woodlands, river red gum associations and ephemeral grasslands | Every 1.43 years |
| Red | The above plus river red gum association, lignum, coolibah, ephemeral grasslands and some black box | Every 1.80 years |
| Blue | The above plus drier coolibah and black box areas, myall, belah and ephemeral grassland areas | Every 2.50 years |

Knowledge of the impacts of regulation on the natural water regime of the Macquarie Marshes relies on links between river flow (modelled or actual) and flood extent mapped from Landsat imagery (Kingsford and Thomas 1995). This is similar to most floodplain wetlands in Australia, due to the lack of water gauging stations (flow or height) located within wetlands. In contrast, in the Macquarie River there are a number of gauges dating back to 1944 and changes in water regime are well documented. Two studies on the impacts of river regulation on the Macquarie Marshes, provided insight into different aspects of water regime. Brereton *et al.* (2000) used modelled IQQM data and Landsat imagery of flood extent to compare flood frequencies in 5 flood zones under natural (Table 1) versus regulated flows (1986 and 1996 Water Management Plans). The modelling approach highlighted that the Marshes is composed of a mosaic of floodplain with differing water regimes. It identified two critical changes to water regime in the Macquarie Marshes due to regulation, firstly the reduction in flood frequency particularly of smaller floods, and the shift in the timing of flooding primarily from winter-spring to spring-summer (Brereton *et al.* 2000).

Kingsford and others (1995, 1998) examined actual annual flows, rainfall and flood extent over a 50 year period (1944-1993). The first 24 years preceded the major regulation impacts in the system and included major flooding in the 1950s. The latter included the commissioning of Burrendong Dam (1968), major flooding in the 1970s, flooding in the early 1980s and the 1990s, and the increase in irrigation in the Macquarie Valley in the 1980s. Kingsford and Thomas (1995) found that annual flows at Oxley decreased significantly for high and medium rainfall events and the areas flooded by large floods contracted by at least 40-50%. Fifty-one per cent of water passing Dubbo each year reached the Macquarie Marshes between 1944-1953, but this declined to 21% by 1984-1993 (Kingsford and Thomas 1995). Analysis of actual flows at Oxley (1996-2003) found an average **reduction in flows to the Marshes of around 207,000 ML / year** compared to flows in the period 1943-1965 (MMMC unpublished analysis of Oxley gauge records)".

This reduction in flows to the Macquarie Marshes, and throughout the Murray Darling Basin (as this situation has been replicated in other river systems throughout the Murray Darling Basin) resulted in the establishment of both the NSW and Federal 'buy back' programs. The 'buy back' was recognised as being the quickest and most cost effective means of returning water to stressed rivers.

It must also be recognised that by keeping the Marshes wet, or at least damp, it uses far less water than if it is allowed to dry out and become 'parched'. The deep heavy black mulching soil takes a considerable amount of water to its profile. Once the Marsh is wet or even damp, it takes very little water to maintain this state and to ensure water continues to flow to the end of the system and meet its obligation to provide base flows to the Barwon Darling. Rainfall events have a much great beneficial impact on this area if the soil has some moisture already on the profile.

The Macquarie contributes approximately 20% flows to the Barwon River system. The water the Barwon receives from the Macquarie is of high quality as it has been filtered by the aquatic vegetation as it flowed through the Macquarie Marshes. These flows are also some of the most valuable flows in both the Macquarie and Barwon rivers as they have multiple uses eg. they provide environmental benefits such as supporting colonial nesting waterbird breeding events, enhancing vegetation growth and enhance fish breeding. They also have economic benefits such as supporting the floodplain grazing of beef cattle, provide soil moisture for grain cropping and irrigation water further downstream.

This is one of the reasons MMELA has so strongly supported the 'buy back' program as it has a huge "bang for its buck" when you consider the vast number of benefits that come from each megalitre of water purchased.

# Beef Production

Beef Production was established in the Macquarie Marshes in the 1840s and continues to be the major economic industry in this area. It is seen to be sustainable and hence the phrase "Fat Ducks Means Fat Cattle" that has been associated with the Macquarie Marshes for many years.

The vast majority of the colonial nesting waterbird breeding colony sites being on private Marsh land that has been grazed by cattle for over 150 years. Only one major colony remains on the Macquarie Marshes Nature Reserve.

Up until 1989 the Macquarie Marshes Nature Reserve was leased out to graziers for beef cattle production. The recommended stocking rate by the National Parks & Wildlife Service (NPWS) in the 1985 Management Plan was 1 cow & calf to 10 acres (4.05ha). This was considered to be sustainable both economically and environmentally and was monitored regularly by the NPWS. The surrounding marsh land was grazed using the same stocking rate however as flooding size and frequency has reduced so has the ability to maintain this stocking rate. In the drier times during the 2000s some graziers have reported stocking rates as low as 1 cow to 150 acreas (60ha)

The recommended stocking rate by the Central West Local Land Services (2013 Land & Stock Returns) for land to the immediate east of the Macquarie Marshes under average seasonal conditions is 1cow to 19 acres (7.7ha), approximately half that of the Marsh area in average seasonal conditions, much less the Marsh area. This is why the Macquarie Marshes have been so valued for beef cattle production and prior to river regulation were seen as very safe (almost drought proof) grazing land.

The majority of beef producers in the Macquarie Marshes run self replacing beef cattle herds (cows having calves each year with the steer portion being sold annually along with cull heifers and cast for age cows) which means the number of breeding cows on the property remains static as older cows are

sold off and young heifers are kept to replace them go on into the breeding program. Under these regimes stock sent for sale average 400kg live weight.

The beef yield of cattle after slaughter is between 52% & 54.7% *(NSW Department of Primary Industries Primefacts January 2007).* Working on 52% yield for this report equates to 20.8kg of beef per acre or 51.37kg per hectare (One 400kg (live weight) beast sold yielding 52% beef = 208kg off 10 acres (24.7ha) = 20.8kg per acre (51.37 per ha).

**Table 2.** Annual Beef Production under current water regime *(This is in conjunction with environmental benefits)*

| Flow past Marebone (ML) | Area Flooded ha | Cattle Produced | Kilograms of beef | Australians Fed | Frequency in Years |
|---|---|---|---|---|---|
| 700,000 | 145,000 | 35,802 | 7,446,816 | 225,661 | 10 |
| 400,000 | 81,000 | 20,000 | 4,160,000 | 126,060 | 6 |
| 250,000 | 50,000 | 12,345 | 2,567,901 | 77,815 | 3-4 |
| 100,000 | 19,000 | 4,691 | 975,802 | 29,569 | 1-2 |
| 58,000 | 9,000 | 2,222 | 462,221 | 14,006 | 1 |
| 30,000 | 4,000 | 987 | 205,431 | 6,225 | 0.5-1 |

- Information on flow rates and area flooded supplied by the Office of Environment and Heritage NSW and the Marebone gauge.
- Australians eat on average 33kg of beef per year *( National Farmers Federation – Farm Facts 2012)*

As you can see as flows reduce so do the number of cattle being produced thus putting strain on supply and so the price of beef in our supermarkets rises. As a result of this much less beef is produced and the smaller amount that is becomes cost prohibitive to many in the community.

The reduction in flooding under natural conditions compared to today (207,000ML on average per year) equates to a loss of beef production of 10,122 cattle = 2,105,376kg beef that would have feed 63,799 Australian people.

While a 400kg beast yields 52% of beef the remaining 48% of the beast is not discarded it also has a considerable value. Co products or By products such as: *(Meat and Livestock Australia reports)*

- The hide – leather goods, floor rugs etc
- Bones, blood and Offal – blood and bone products for gardens
- Tongue and cheek – sold for human consumption
- Other offal – some sold for human consumption (tripe and heart) and some for pet food.

are important to the national economy as well as some being part of the export market.

Local businesses and services benefit from having a healthy and sustainable grazing industry in the Macquarie Marshes as graziers purchase the majority of their inputs such as drenches, lice control etc locally and use local contract labour. This has a positive flow on effect to the socio economic well being of the local communities.

There are also positive impacts for wider regional communities with the larger livestock selling centres often used to sell stock from the Marsh area. Feedlots and abattoirs also receive cattle from this area so their workers and supplies also benefit. The flow on effects are considerable and not to be underestimated.

# Over View

MMELA was, and continues to be, very supportive of the 'buy back' approach to return water to our still stressed and over allocated river systems. This organisation has always seen 'buy back' as the quickest, most cost effective and equitable means to increase water availability for rivers, floodplains and wetlands.

Beef cattle production on floodplains and in wetlands flourishes as a result of flooding however it does this without extracting or taking water from the system. Therefore this water can continue on through the river system and benefit many graziers as well as any identified environmental assets downstream. It is extraction of water from the system that has the biggest detrimental impact, to both ecological communities as well as graziers on the downstream side of the extraction.

There has been criticism from other sectors of the community that water returned to river systems for environmental purposes has no real value. As you can see water purchased by governments can help to feed a rapidly growing population while still achieving the environmental benefits for which the water was targeted.

MMELA also acknowledges that the 12% of the Macquarie Marshes now managed by the National Parks and Wildlife Service (NPWS) is no longer used for grazing. However it must be accepted that the value and contribution of this area of the Marshes to the Australian population must be equal to, or greater than that of beef production or it would not have been retired from grazing.

It must also be understood that if a greater area of the Macquarie Marshes was to be taken out of production, as suggested by another section of the community, this then poses a cost burden on the Australian public as it is the tax payers who must fund the ongoing staffing and management of the land and ensure such management tasks as weed and feral animal control, infrastructure maintenance and bush fire management etc.

# Conclusion

MMELA trusts this paper helps to clarify the importance of maintaining programs such as the 'buy back' for both environmental and economic purposes. The current and future value of the beef cattle industry in the Macquarie Marshes is vital to the survival Marsh landholders and our local communities as well as having an important role in wider regional economies.

To imply or say water purchased by governments in 'buy back' programs as no real value to communities is not only incorrect but it is irresponsible as the benefits are great and far reaching.

We thank you for taking the time to read this paper and should you have any questions or comments, please do not hesitate to contact this organisation.

# References

Kingsford and Thomas 1995

Kingford & Auld 2000

Jenkins, K.M., Asmus, M., Ryder, D., and Wolfenden, B.J. 2004. Fish and macroinvertebrate communities in the Macquarie Marshes in the winter and spring of 2003

1985 Macquarie Marshes Management Plan

Central West Livestock Health and Pest Authority

NSW Department of Primary industries Primefacts January 2007.

National Farmers Federation – Farm Facts 2012

NSW Office of Environment and Heritage

**This paper prepared by:**

**The Macquarie Marshes Environmental Landholders Association**

For Further information please contact:

Mr Garry Hall
Chairman, MMELA

NSW

QUAMBONE PASTORAL CO. PTY LTD

28th November 2005

The Secretary
Senate Rural & Regional Affairs
Parliament House
CANBERRA ACT 2600

Dear Senators

**RE: SENATE INQUIRY INTO WATER POLICY INITIATIVES IN AUSTRALIA**

I wish to make the following submission to your inquiry into water policy initiatives in Australia with particular reference to the following: -

B. Methods of protection for rivers and aquifers;
D. Monitoring drought and predicting farm water demand;
E. The implications for agriculture of predicted changes in patterns of precipitation and temperature.

My main concern is the short and long term costs being born by a large number of communities subsidising very few wealthy influential irrigators for very large short term gain. The communities affected are: -

1. Local to irrigation community
2. Downstream floodplain graziers and environment
3. Local Government

4. State Government
5. Federal Government – national community



1. LOCAL TO IRRIGATION COMMUNITY

This community is the lucky one with all the upside and with the least downside, but there are significant costs to living in an irrigation area and not being an irrigator.

These being the levy banks protecting irrigation properties on the floodplain which decrease floodplain water holding capacity and through put. The effect is to increase flood water height and speed of water flow which ends up flooding non-flood country killing that environment, flora and fauna, also killing livestock and crops on non irrigation properties with no compensation being paid by irrigators (levy bank owners).

Also the increased risk to infrastructure and peoples lives such as in Nyngan in 1989/1990, Warren, Wee Waa and Trangie. The extra protection being required for these towns is not being paid for by irrigators.

2. DOWNSTREAM FLOODPLAIN GRAZIERS AND ENVIRONMENT

These communities receive no benefits from the irrigation industry and bares the biggest cost (or subsidises the irrigation industry the most) in brief: -

- Loss of environment including marshes, floodplain and threatened species
- Loss of flow quantity, quality, flow pattern and erosion.
- Loss of pasture and water supply for floodplain grazing.
- Increase in exotic weeds such as Lipia, Bushy Groundsel, Noogoora Bush and Bathurst Burr
- Loss of income due to decreasing stocking rates for example; on this property I estimate that pre irrigation this financial year I would be able to run 3000 extra steers netting after cost pre tax $200.00 per head = $600,000.00 and the steers that I am running now would be an extra 40kg heavier = 5,000 steers x 40kg x $2.00 per kilo = $400,000.00. This totals $1,000,000.00 net loss due to irrigation this financial year of 2005-2006.

3. LOCAL GOVERNMENT COMMUNITIES

It is recognized by CSIRO, Queensland DPI meteorologist and overseas scientists that rainfall is affected downwind up to 50 – 70 kms from large water sources such as the Macquarie Marshes, Gwyder Wetlands, large storage dams i.e.; Burrendong and irrigation areas.

The affect in NSW is that low rainfall areas in the west of the state are being denied evaporation thus rainfall, equaling lower production, lower profit and more droughts.



In the higher rainfall areas there is increased evaporation, increased rainfall leading to higher soil moisture content, extra salinity, flooding etc... hence the old saying *'moisture attracts rainfall'*

In the Macquarie Valley a large percentage of the irrigation is cotton growing surrounding the townships of Trangie and Warren with regulated water from Burrendong Dam. In years of high flows cotton is grown below the Macquarie Marshes at Carinda. The gross margin for cotton at Carinda –v- Warren is $400.00 per hectare higher due to increased sunlight, increased temperature and decreased insects and bugs which all adds up to an increased production of $400.00 per hectare. This does not include the added benefit to the environment in the Macquarie Marshes and to floodplain grazing.
***The cotton irrigation industry in the Macquarie Valley is in the wrong place.***

4. STATE GOVERNMENT SUBSIDY

The irrigation industry is not paying full cost for all the state government resources that it is using such as: -

4 Dams, weirs, pumping stations etc...
5 Government staff in the Department of Natural Resources
6 Water plans and scientific studies that are being demanded by irrigators on everybody else including environment to justify their desire for more water.

The state government Department of Natural Resources decision making is not balanced. An example being a loan of water from town supply to general security irrigation water costing irrigators $8.00 per megalitre could be resold on the water market for up to $250.00 per megalitre, giving irrigators large unfetted drought support when the rest of agriculture was desperate, especially downstream floodplain graziers who with pre irrigation industry conditions would not have been in drought because that water would have naturally flooded some of their country, supporting the environment and graziers. Yet another form of

subsidy for irrigators.

5. FEDERAL GOVERNMENT SUBSIDY

Twenty years ago the federal budget would have spent very little money for the environment. Last year millions of dollars were spent on five icon sites in the Murray Basin. The loss of critical environment will require billions of dollars for rectification in the future in such areas as the Macquarie Marshes, Gwyder Wetlands, Boarder rivers etc...



More Federal Government funding will be required for flood infrastructure due to increased flood heights as a result of levy banks as explained earlier also funding for rescue services, army and air force, an example being Nyngan in 1989.

None of this extra cost is being paid for by the irrigators.

The Free Trade Agreement with the USA states that Australia does not subsidise cotton. This is wrong as explained above.

RESULT

The floodplain graziers and their environment have been denied floodwater because of irrigation thus have been placed permanently in an increased drought situation and lowered production and profit. These businesses should receive exceptional circumstances payments approximating their loss as their current position is not of their making but rather of government policy and beaurocratic bungling.

REMEDY

All the present subsidies for the irrigation industry should be removed and full upfront cost recovery be introduced to stop this transfer of wealth from many communities to just a few large individuals and companies.

If you require further information please do not hesitate to contact myself on

I shall be just out of the ACT on the 3rd and 4th of December 2005 and can arrange to stay longer if you wish to arrange a meeting.

Yours faithfully

Dugald Bucknell
Manager
Quambone Pastoral Co.

# OBJECTIONS TO MACQUARIE FLOODPLAIN RISK MANAGEMENT PLAN

NARROMINE TO WARREN 2000 - 2010

1. Members of the committee were unable to do site inspections.
2. Economic study in phase A is wrong.
3. The report only studied within the floodplain and within the study area
4. Report distorts quantity and quality of water, i.e. increase big floods, decrease small floods so the average remains the same.
5. No protection for non levee bank areas.
6. No compensation for affected landholders
7. No compensation for government/taxpayers.
8. The income for the government from water sales does not justify the risk.
9. The plan does not take into consideration sale of irrigation water to other areas thus lower need for protection.
10. It does not take into account removal of these banks in the future and at whose cost.
11. EIS statements were not done on irrigation location.
12. Cotton irrigation is in the wrong location to maximize Australian national productivity.
13. Beneficiaries of report to indemnify future loss.

# EXPLANATIONS TO OBJECTIONS

1. Members of the committee and downstream community unable to see any sites of interest in the Floodplain eg; hotspots, areas that have been dismissed as hotspots, floodways, levee banks etc, areas where "guidelines" will allow development in the future.
2. The economic study in phase A is limited to the study area, is out of date, does not include regional, state and federal economic issues, and is inadequate and factually wrong.
3. The plan only studied within the Floodplain within the study area, for example it did not study affects on Trangie, Nyngan and the Bogan River, it did not reference the "Sinclair Report" on the Nyngan 1989/1990 flood and did not study management of Burrandong Dam and flood mitigation zone, it did not study effects of threatened legal action against government departments ( "Marebone Choke"), it did not study effects of small and medium floods downstream, i.e.; width, height, speed, distribution and regularity.
4. The report claims that in a big flood more water gets to the Marshes, i.e.; 1955 and 1990. At these times the Marshes are full and do not need extra flooding because it effects high non-flood areas eg; Wilga, Leapardwood, redsoil country. This will distort average flows to the Marshes i.e.; small-medium floods (good) will be decreased, but the "average flow" figure may remain the same. This has happened in the past and as a result the Marshes and Floodplain are dying or are beyond repair in some places.
5. There is no protection for areas outside the guidelines.
6. No compensation for landowners, environment who (i)would not have been flooded but will now be flooded, (ii)would have been flooded originally but was manageable, which will now not be manageable under increased height or duration.
7. No compensation for governments which have had to increase levee banks, road heights, bridges because of increased water height plus volume concentrated in floodway areas instead of across the whole floodplain.
8. The income for the State Government from irrigation water sales does not seem to justify risk to everyone else in the community. (391,000 mgs x $8.00/mg =$3,200,000.00).
9. The report does not take into consideration sales of irrigation water into other areas, eg, mining, power stations, town supply – Dubbo, Orange, Lithgow and Sydney, or changed into other river systems as in the Murray-Darling to Adelaide.
10. The report does not take into account removal of these banks etc. in the future and at whose cost.
11. Environmental impact statements were not done on irrigation location in the Macquarie Valley including their total effects. This should be done before these new rules are allowed to make sure that governments are not compounding mistakes.
12. Cotton irrigation in the Macquarie Valley is in the wrong location to maximize Australian national productivity. To increase productivity you need 1. Increased number of growing days, 2. Increased maximum and minimum temperatures, 3. Decreased bugs and diseases which will result from increased temperatures, 4. Modern, better planned and efficient cotton farms. All of the above are available at Carinda and their experience suggests up to a $400.00 an acre net better return than cotton grown between Narromine and Warren. Present productivity at Carinda is approximately a sheep to four acres thus turning Carinda into "up to $400.00" an acre greater net profit than Warren to Narromine cotton farms would give a huge economic boost. As a result returning Warren to Narromine country back to the best sheep studs, cattle studs and one tonne to the acre (or better) wheat country which is more productive than Carinda at a sheep to four acres. The additional soakage and evaporation usage by the Marshes could be counted from tributary flows, flood mitigation zone flows and wildlife allocation (160,000 mgs). If this was done it would increase

national income/productivity. Under present cotton prices some cotton farms are non profitable and with the above scenario Carinda would still be profitable.

13. If this Floodplain management plan is so good, are the beneficiaries, i.e.; levee bank owners, consultants, department staff that worked on it and committee members prepared to indemnify everyone (locals, landholders, Local, State and Federal Government) from future losses? IE; PUT YOUR MONEY WHERE YOUR MOUTH IS.

Email ra.reps@aph.gov.au

QUAMBONE PASTORAL CO

NSW

The Secretary for the Committee on Regional Aust
(MURRAY DARLING PLAN)
House of Representatives
P.O Box 6021
Parliament House
Canberra
ACT 2600

14th December 2010

Dear Sir Members of the Committee / Committee members.

I am writing to you in support of the Murray Darling Basin guide and in particular the Macquarie section of the plan and the returning of water to the lower Macquarie Floodplain including the Macquarie Marshes. Any returning of water after the calculated mismanagement of the NSW bureaucracy has to be congratulated.

I would encourage more than the bare minimum to be returned to the river for many reasons, some of which I will list below: -

A. 1) The end of system flows is not being measured accurately
   2) Some streams are not being measured at all, e.g., Mallons Swamp, Ginghet, and Marthaguy Creeks.

B. The Macquarie River has the most winter rainfall dominant catchment for the Darling River and thus its flow should be anticyclical to the summer dominant rainfall areas of the Darling.

C. Evaporation is bureaucratically believed to be bad but in its natural place, i.e. floodplains it is essential for if you do not have moisture you do not have evaporation, and if you do not have evaporation you will not have clouds and if you do not have clouds you will not have the rainfall and if you require any evidence we have just had ten years of drought.

D. The economic loss being caused by the lack of water over the last ten years. Our business (beef production) alone could easily be 2 – 3 million GROSS per year of which most is spent on expenses in the business such as cattle purchases, cartage, fodder crop expenses, feedlot expenses and employment with increased water returned to the floodplain this opportunity will return.

E. The social (community) loss after the last 15 years has decreased employment, the loss of one shop, one Post Office, one Bush Nurse, health centre, one fuel distributor, one shearing contractor business, and one takeaway alcohol outlet. We had three teachers at the school, we now are looking at only having one. The more water that is returned to the Macquarie, the more opportunity will be returned to our community.

As you can understand, the Macquarie Floodplain is very complicated for you to get a broader understanding I suggest a meeting with marsh landholders and their community.

**Suggestions for solutions**

1. Supplementary water should be stopped
2. Irrigation water should only be out of Burrendong Dam, not downstream tributaries.
3. Irrigation water should not be able to be rejected without being debited to their water account.
4. Macquarie Valley irrigators received special treatment when water entitlement was changed from acres to megalitres. This should be reversed to maintain consistency throughout New South Wales.

Once again, I encourage you to come to the Macquarie Floodplain.

Yours faithfully

Dugald Bucknell
Managing director
Quambone pastoral Co.

5. Cotton production is the most prefered irrigated crop in the Mequorie valley. A study of the best growing location ie soil temp rainfall, humidity, daylight hours etc from the plants perspective, and then moving irrigation to that location may improve productivity, water efficiency profitabity + community outcomes.