SUBMISSION

To The:

Senate Rural and Regional Affairs and Transport Inquiry Into Water Policy Initiatives

The impact on rural water usage of recent water policy initiatives and the possible role for Commonwealth agencies.

By:

OWEN & KAREN BETTS
"BALGI"
HEBEL QLD 4486

Ph/Fax (07) 4625 0931
E-mail: bettsbalgi@bigpond.com

SUMMARY

The Lower Balonne floodplain is a controversial and contentious area in Australia as it spans across two states, namely Queensland and New South Wales, yet it is the policies and decisions that are made in Queensland which have a dramatic and negative effect on landholders and the environment in NSW. Landholders and the environment on both sides of the border rely heavily on the rivers and associated floodplains, yet the rules and policies differ, resulting in those in NSW being negatively affected by Queensland based decisions and having limited input and avenues for appeal.

There is a strong case that when systems cross borders and landholders, communities and the environment, including National Parks and Ramsar sites, are dramatically affected on both sides, it should be come under Federal jurisdiction.

SAME SYSTEM, SAME WATER, SAME RULES.

BACKGROUND

We are dryland farmers and graziers who own and manage properties on the Lower Balonne floodplain in Queensland. Our properties are on the Culgoa and Ballandool Rivers, Briarie Creek and associated floodplains directly downstream from large scale irrigation development, water harvesting and overland flow extraction.

The Lower Balonne floodplain is a section of the Condamine Balonne which forms part of the Murray Darling Basin. The Lower Balonne spans from Beardmore Dam at St George in Queensland to the Narran Lakes and the Barwon and Darling Rivers in NSW. It comprises of the Culgoa R, Birrie R, Balonne Minor R, Bokhara R and Ballandool R all of which flow into the Barwon/Darling and the Narran R which flows into the Narran Lakes which is a Ramsar site. It overflows from the Lake via Narrandool and Hospital Creeks to the Bokhara R, then Cato Ck to the Darling River. There are also many other creeks and associated floodplains.

The Lower Balonne floodplain is a very fertile delta which relies on regular beneficial overland flows and flood inundation to grow grass, rejuvenate floodplain species and be productive. This type of flooding is regarded as beneficial as it replenishes soil moisture, deposits silt for topsoil, transports seeds downstream and allows aquatic species opportunity to access the floodplain for feeding and breeding. This beneficial flooding has continuing benefits for the grazing and dry land farming industries for up to 2 years after a flood.

The area of the Lower Balonne floodplain subject to overland flooding is approx 1.38 million hectares. Of this approx 329 000 hectares are in Qld and 1 058 000 hectares are in NSW.[1]

The area under irrigation in the Queensland section of the Lower Balonne is approx 47 000 hectares for crops, 40 000 hectares for ring tanks and extra is bunded for potential development.[5]

Total storage capacity (not ratified by engineers) is approx 1500 GL. Under the new Queensland Government Water Resource (Condamine & Balonne) Plan 2004, through the ROP process, it is only intended for this not to increase. On farm storage capacity is now 19 times that which existed in 1988, 5 times what was reported in 1993/94 (the Cap benchmark year) and has trebled since the WAMP process began in 1996.[2]

Average annual flow past St George is approx 1200 GL, greater than the estimated storage capacity. A dramatic decline has been recorded in cross border flows since 1972. There has been a 50% reduction in the average and a 74% reduction in the median annual cross border flow.[2]

DEVELOPMENT OF WATER PROPERTY TITLES

This places a value on water harvesting licences. As overland flow extraction is being legitimised, a value will also be placed on overland flow water, but no consideration is given to the value of the naturally occurring overland flow, rivers and the environment.

With water property titles there will be the establishment of water trading. Will there be water trading across borders or is it restricted to the state the licenses were issued? Will the NSW Government be able to buy licences from Qld for the environment in NSW?

Once water property titles are established it will open the way for compensation for water licence holders if it is found there needs to be cuts in entitlements. Compensation will also be liable for overland flow licences if cut backs are made. These licences were developed after the 1992 moratorium on new licences. This is water taken from downstream users, yet there is no compensation for their loss of water and productivity as a result.

Since water extraction began on the Lower Balonne, the reliability of the floodplain and hence the productivity of downstream properties has slowly decreased. The Lower Balonne Integrated Flood Plain Resources Study October 1996 (Mottell Pty Ltd), states that on the Lower Balonne Floodplain, the average dry sheep equivalent (DSE) during non-flood years is 2 163 656. In a flood year this increases to 3 277 855 and decreases in year 2 and 3 after floods to then reach the DSE of a non-flood year. This shows that graziers have benefits of increased productivity for 2 years after a flood event. Dry land farmers also receive benefits from overland flows.[1]

Water Property Titles transfers wealth from downstream landholders and communities, many in NSW, to water licence holders in Qld. Water harvesting takes water from downstream users, mainly in NSW, and gives it to landholders in Qld. This wealth and water is then concentrated mainly in the upper reachers of the river systems rather than spread evenly along them.

Governments will then need to buy licences for the environment. We do not know of any environmental or economic impact studies on the effect of water trading on the Lower Balonne.

If water rights are to be recognised on the floodplain for irrigators, then they need to also be recognised for floodplain graziers.

METHODS OF PROTECTION FOR RIVERS AND AQUIFIERS

There needs to be a full investigation into the process the Lower Balonne Community Reference Group (CRG) used to develop a submission to the Qld Government for the Water Resource (Condamine & Balonne) Plan 2004 (WRP).

The Lower Balonne system is to be managed by the Water Resource (Condamine & Balonne) Plan 2004 (WRP) through the Resource Operations Plan which is advised by the Ministerial Advisory Committee. The CRG made it's submission after the Independent Scientific Review Panel headed by Prof Cullen, conducted a review of the science underpinning the assessment of the ecological condition of the Lower Balonne System commissioned by the Queensland Government.

Various interest groups have taken the Cullen review out of context by stating the rivers are healthy. The Cullen review suggests "*The rivers and wetlands of the Lower Balonne system are presently in a reasonable ecological condition*"[3]. It does NOT state they are healthy. "*BUT this condition is expected to deteriorate if the present capacity to extract water from the system should actually be exercised*"[3]. This is due to the "*significant lag times before ecological impacts become apparent*"[3], agreed with by the panel and referred to constantly throughout the review (approx 40 years). More than half of the present increase in capacity of water storage on the floodplain from about 90 GL in1995 to 740 GL in 2001, occurred in 2001 (Cullen et al page 37). We have yet to see the consequences of this and we can only expect the system to deteriorate.

The review continues to state that it would be an "*inappropriate conclusion*" to "*assume that the current levels of water extraction are not having any particular impacts on the health*" of "*the rivers and Narran Lakes*"[3], due to the following two reasons. "*Firstly, the system has not yet experienced the full potential impact of present flow extraction infrastructure (due to recent increases in diversion capability and recent low flows), and Secondly, there appears to be a significant lag between when a flow regime is altered and when the biological impacts become apparent.*" "*Therefore it is likely the present health of the Lower Balonne river system reflects extraction patterns from some period in the past.*"[3]

Despite warnings in the review that the system will deteriorate if present levels of development are exercised, **there has been no reduction in extraction levels in the Water Resource Plan**. Reduction in the WRP of 5% in water harvesting was to allow the development of sleeper and dozer licenses and should result in no net increase or decrease of extraction levels. Water harvesters are allowed to increase there extraction by 5% for the next 5 years to compensate for this as they predict that is how long it will take for this further development to occur.

The Water Resource Plan only allows for a reduction in water extraction of 10% for up to 5 days once certain flow event criteria are met. Where these flow criteria are met, this results in a flow reduction of only 1-2% in real terms. This is then placed in a bank to be repaid in a future flow event. In effect there is no reduction in extraction. This was merely a figure irrigation groups were 'happy' to live with before compensation was sought. There was no computer modelling or studies done to determine if this figure would achieve set objectives or what downstream effects it would have. There have been no studies done to determine if this will have any beneficial affects for the Narran Lakes.

The only part of the review which appears to have been considered is to use event based management. Despite a large portion of public submissions strongly opposed to

the draft Water Resource Plan, only minor changes were made. The NSW response to the WRP, which was largely critical of it as it will still have a great and devastating impact on landholders and the environments downstream in NSW, was ignored.

We believe the chair of the group had a conflict on interest due to having a financial association with the largest privately owned irrigation cotton farm in Australia. We believe this could have affected the chair's ability to make impartial decisions, present fair and equal representation of all sides of the debate when reporting to the Minister and even effect the direction of the meetings. Decisions in favour of the chair could mean financial gains take precedence over environmental outcomes.

There was no defined process for becoming a member of the CRG. The group was made up largely in favour of irrigation groups. Only 4 of the 22 positions were held by NSW landholders, despite the area of the system being greater in that State. Members with direct irrigation interests held 11 of the 22 positions meaning other groups were continually outnumbered making them unable to have their voices heard or opinions catered for. The floodplain graziers and dry land farmers did not agree with the CRG submission to the minister, they only reluctantly allowed the process to proceed so public submissions could be sought. NSW landholders were only placed on the CRG after the Cullen et al review had been completed. NSW agencies were not consulted until the draft plan was released, despite them having an interest in the area.

NSW requests that the MAC be chaired by a financially independent chair were ignored by the Qld Government.

Water harvesting licences for extraction from the rivers are capped at 60 000 Ml flow threshold i.e. extraction rates do not increase above this threshold. These were issued through a licensing process.

The water harvested off the floodplain originated from the water contained in the rivers of the Lower Balonne. Bunding or banks are used to channel water directly into storages or it is pumped off the floodplain. In some cases diversion channels take water from the rivers, it then spills onto the floodplain and then became overland flow water, not covered by regulations. Much of this water would have flowed back into the rivers or over the floodplain to downstream properties i.e. it would have stayed in the system and not been lost.

Overland flow extraction was not developed through a licensing process. There was no legislation or controls on the floodplain so under common law, these were developed according to financial and physical resources without any studies on downstream effects or environmental impact. Many were developed after the Lower Balonne moratorium on new licences in 1992. The great majority of these i.e. approx 75% of these were developed in 2001, just prior to the 2002 moratorium on overland flow water. The new Water Resource Plan will convert water taken from the floodplain to fill these storages into water licences which goes against the 1992 moratorium.

There has been no environmental impact study done, to determine what environmental impact these new licences will have on the downstream landholders, National Parks or the Narran Lakes, before they were ratified in the WRP. There is a study currently in process, but if it is found there need to be reductions in water extractions at the 5 year review process, they will then be licensed and subject to compensation. This is a great exploitation of a policy loophole by Queensland landholders, not available to those in NSW.

There is no annual limit or yearly volumetric cap in the Queensland section of the Lower Balonne. The only limitation is governed by the capacity of the storages. These storages have the potential to be filled each flow event. If the system flows more than once a year and the water in the storages has been used, the storages can be filled again that year providing that a flow is sufficient for pumping. Stock and domestic and the environment have less security to water in the Lower Balonne than the irrigation industry. NSW has an annual volumetric limit.

Prof Cullen (2002) recommends not more than 33% maximum mean annual flow extraction out of any flow event for a sustainable working river[3]. Table 1 shows extraction rates well in excess of this.

The rivers and associated floodplains in the Lower Balonne have been over-allocated and mismanaged by the Queensland Government. Table 1 shows the over-allocation of many water harvesting thresholds, especially the low flows. The 730 Ml/day allowed for compensation releases is inadequate and frequently the system fails to run to the extremities when it did in the past.

Stock and domestic flows need to be given a higher priority than water extraction, and rivers should be allowed to flow to ensure a through flow before extraction begins.

FARMING INNOVATION

New farming practices has meant there is less run off in the upper reachers of the catchment, so less water to flow down the rivers.

Bunding has allowed overland flow extraction and the development of licences after the moratorium

MONITORING DROUGHT AND PREDICTING FARM WATER DEMAND

The environment in the past has been able to survive and recuperate from drought. Present anecdotal observations give every indication of the environment being stressed and less able to recover, due to large numbers of dead and dying trees and dead and dying lignum. This drought is as severe as the 1940's but made more so due to water extraction has meant less river runs and overland wetting, making a man made drought. Changes in vegetation are also being noted on the floodplain as a result of reduced wetting. Water needs to get onto the floodplain urgently.

There needs to be an independent study completed, to determine the wetting requirements for the floodplain to survive and the rivers to maintain health, before any new licences are ratified. Federal Government needs to commission a study into the Ramsar site, the Narran Lakes, to determine if the WRP will have a detrimental effect on it.

IMPLICATRIONS FOR AGRICULTURE OF PREDICTED CHANGES IN PATTERNS OF PRECIPITATION AND TEMPERATURE

The NSW Government response to the Consultation Draft Water Resource Plan states "*The flow events of February-March 1981, March 1988 and March 1994 all followed long periods of no flow (the 1981 being the longest) and are similar to the January 2004 event. The volume of water entering NSW as a proportion of total flow at St.*

George, was 44% for 1981, 45% for 1988 and 48% for 1994. In contrast, the cross border flow from Jan 2004 was only 20% of the total flow at St. George. Preliminary Landsat 5 image analysis, comparing the 1988 and 2004 events, indicate that this 50% reduction in total flow and greater attenuation of flow peaks, resulted in a reduction to floodplain inundation of 73% in Queensland and 88% inNSW."[2]

Predicted changes in weather patterns indicate that the years ahead will be hotter and dryer. Droughts will be more frequent and more intense. This will be exacerbated in the Lower Balonne by the man made drought though water harvesting as shown above.

CONCLUSION

Recommendations:

- There needs to be a Federal approach to ensure protection of rivers as there is no fair cross border sharing agreement between the States.
- Full environmental and economic impact study on the Lower Balonne system in Queensland and NSW before the WRP proceeds any further.
- Environmental flows must take precedence over water extraction and it needs to ensure there is a full flow through before any extraction. If there is not sufficient water to flow through there should not be allowed any water harvesting.
- Water needs to be able to flow onto the floodplain.
- Fund to purchase licences for the environment.
- Qld needs an annual volumetric cap, determined by environmental standards not by works done. This is not environmentally responsible or sustainable.
- Compensate downstream floodplain users for loss of water, hence loss of production. This could be funded by water charges on water harvesters.
- Eliminate overland flow extraction immediately as it was developed through a loop hole and not a licensing process and goes against the 1992 moratorium.
- Water for the environment should come first and water harvesting the excess, not the reverse.
- A Federal approach would have ensured equal representation across all geographic regions and enterprises.
- Full investigation into the formation of the CRG and the process used to develop the submission.
- If water rights are to be recognised on the floodplain for irrigators, then water rights need to be recognised for the floodplain grazier.

The recent water policy initiatives in Queensland and the signing off of the Water Resource (Condamine & Balonne) Plan 2004 will have a devastating impact on landholders downstream of major developments in Queensland and NSW as well as the National Parks and the Narran Lakes. It will legitimise overland flow extraction which was developed through a loop hole and not a licensing process, most since the moratorium on new licenses was issued.

A Federal approach is needed as there is no cross border sharing arrangement between the states. The CRG process was flawed. Qld was initially reluctant to include NSW in the CRG. Queensland does not appear willing to work with NSW as they ignored there highly critical response to the WRP.

SAME WATER, SAME SYSTEM NEEDS THE SAME RULES.

REFERENCES

1. Mottell Pty Ltd (1996) Lower Balonne Integrated Flood Plain Resources Study October 1996
2. New South Wales Government (May 2004) New South Wales Government Response to the Consultation Draft Water Resource (Condamine and Balonne) Plan 2003
3. Cullen, P., Marchant, R. and Mein, R. (2003) Review of Science Underpinning the Assessment of Ecological Condition of the Lower Balonne System. Report to the Queensland Government by the Independent Scientific Review Panel.
4. Queensland Government Water Resource (Condamine and Balonne) Plan 2004 Subordinate Legislation 2004 No.151
5. www.ozcotton.net.au; www.balonne.qld.gov.au; www.brisinst.org.au

Table 1 **Water Harvesting And Extraction Rates** Ml/day

Compiled from DNR - 'Current Licenses Diversion for Water Harvesting'
'Type A & B Thresholds and Extraction Rates'

Type A & B are now referred to as Overland Flow. Above subject to ROP.

Above doesn't allow for filling Beardmore dam

Flow Window at Jack Taylor Weir	Cumulative Water Harvesting Upstream St.George	Cumulative Water Harvesting Downstream St.George	Overland Flow Extraction	Total	% Total Extraction to Flow Window
1200	86	627	0	713	59.42
1500	86	713	0	799	53.27
2000	393	1241	0	1634	81.70
2500	595	1513	0	2108	84.32
3000	807	2732	0	3539	117.97
3500	807	2762	0	3569	101.97
4000	894	3061	120	4075	101.87
5000	894	3663	120	4677	93.54
6000	1066	4315	120	5501	91.68
7000	1450	4749	120	6319	90.27
8000	3958	8230	120	12308	153.85
10000	4468	9538	120	14126	141.26
12000	4688	10295	120	15103	125.86
14000	4888	11505	120	16513	117.95
16000	5050	12396	234	17680	110.50
18000	5170	13337	234	18741	104.12
20000	5316	13931	1234	20481	102.41
22000	5396	14881	1234	21511	97.78
24000	5444	15401	1234	22079	91.99
26000	5484	15861	1234	22579	86.84
28000	5524	16321	1234	23079	82.43
30000	5564	16566	3501	25631	85.44
32000	5594	17036	3846	26476	82.74
34000	5594	17146	3846	26586	78.19
36000	5594	17656	4326	27576	76.60
38000	5594	17766	4326	27686	72.86
40000	5594	18136	7890	31620	79.05
42000	5594	18216	7890	31700	75.48
44000	5594	18686	7890	32170	73.11
46000	5594	18756	8206	32556	70.77
48000	5594	19016	9006	33616	70.03
52000	5594	19276	11674	36544	70.28
56000	5594	19536	11674	36804	65.72
60000	5594	19796	15706	41096	68.49
70000	5594	19796	18476	43866	62.66
80000	5594	19796	27717	53107	66.38
90000	5594	19796	30674	56064	62.29
100000	5594	19796	35620	61010	61.01
110000	5594	19796	37168	62558	56.87
120000	5594	19796	44829	70219	58.52
130000	5594	19796	46849	72239	55.57
140000	5594	19796	51114	76504	54.65
150000	5594	19796	53501	78891	52.59
160000	5594	19796	58279	83669	52.29
170000	5594	19796	60885	86275	50.75
180000	5594	19796	66041	91431	50.79
190000	5594	19796	68931	94321	49.64
200000	5594	19796	74527	99917	49.96
210000	5594	19796	77508	102898	48.99
220000	5594	19796	80605	105995	48.18