

Your Honour,

It is my intention to show that the MDBC Plan & the Water Act have to date failed to describe and therefore prescribe methods of take in the Northern Rivers, that in recent decades have become the principal system for harvesting water for irrigation.

The Four Corners programme (24/7/17) exposed various ways water was being taken illegally and in some cases in collusion with what were supposed to be State Offices and their Officers empowered with the oversight of the Plan & the Water Act!

A subsequent Lateline program (31/8/17) went on to show in more detail a specific case of water theft that the irrigator defended as legal. The common name for this method of irrigation is "floodplain harvesting" (FpH)(see attached my brief DEFINITION of the practice).

Your Honour I seek the Royal Commissions opinion as to:

1. why this method is not described as a means of taking water for irrigation?
2. Is it a method than can be prescribed and thereby become legitimate extraction?
3. Or is it so contrary to the riverine environment, water use efficiency, down and upstream landowners/irrigators, riparian law and basic ethics as to have no future in the Murray Basin Plan or the Water Act?

Notes to the Terms of Reference – Item numbers:

- C (a) methods that extract the clear majority of flows or floods contravene the very basis of sustainability. These need to be addressed in the Plan.
- (b) a little of the flood plain above a FpH structure will receive enhanced flooding regimes (sometimes to such an excess that a neighbour's crops are drowned – the method is unable to be controlled), whilst the floodplain below structures is only likely to flood in extreme flows. The effect on downstream riverine conditions is equally disastrous in floods that are say less than 20 year events – ie they get no water. The ecology is being flogged by rapacious FpH's.
- (c) whilst the MDBC assigned SDL's to all streams in what has been accepted as a fair method it is now clear that the Northern Rivers FpH is a form of take that is not able to be controlled or measured. (see The Murray – Darling Basin Water Compliance Review, November 2017. Pg 13). Further the evidence on ABC – Landline 15/4/2018 showed the Darling between Wilcannia and Louth waiting for a trickle from the substantial rains in Queensland a few weeks ago. During the early 2000's drought nobody expected there to be water in the Darling but in the periods of good rains in some years this decade the Darling is still dry.
- (i) The state of the Darling in the last few years is testament to the vast changes that have occurred upstream courtesy of FpH.
- (ii) There is now, much to question about SDL's in the Northern Rivers after The Murray Darling Basin – Compliance Review (Nov 17. Pg 13) states "getting accurate data, the most fundamental of the requirements for a compliance system, is very difficult".

- D** It is vital that the states find agreement to make the Plan work. I trust this Royal Commission will assist them find the fair ways forward?
- E** In points a,b & c here SA is saying no more or less than what I hope all the other states are saying - they want the Plan to work.
- F** The noncompliance raised by SA as the reason for this Inquiry highlights the lack of oversight and diligence, government and authorities have applied to the Plan in this area.
- Theft and abuse matters are symptomatic of poor legislation primarily. It is more than difficult to administer poor legislation!
 - The amounts of water reported as stolen are quite small compared to the amount of water taken by FpH some of it measured and licenced but not to the standards that apply to take from the Southern system.
 - Some legal action is/has taken place where staff have acted in breach of the duties Authorities are commanded to administer.
 - The Royal Commission may wish to determine why FpH was not described & prescribed and who benefited from its omission?
 - I understand some streams have not written or at least not adopted their Water Resource Plans (WRP). The current kerfuffle is opportune for the development of really enlightened Plans!

REPORT of the ENQUIRY to these Questions:

- 1) In doubt currently – but possible if the intent of the Plan is the focus for the outstanding Water Resource Plans, rather than sectarian gains.
- 2) The adoption of the Plan is dependant on all the WRP being written and adopted –not some of them. Having any lite WRP's will not full fill the Plan's intent and it therefore will not fly.
- 3) If FpH is addressed the current Plan to deliver 2750 GL will be achieved. The 450 GL of upwater is not part of the proposed Plan – but could be included if rationalisation of the Medindie and Lower Lakes were adopted into the Plan.
 - a) CHEW is the largest and newest irrigator in Aust and whilst doing a very good job to date, its volumes are not complete, and the environment will continue to improve for decades under this new regime.
 - b) Further if the rivers suffering from non –prescribed take were regulated to a degree equitable with all other parts of the system –then many hundreds more GL are likely to be delivered to environmental water accounts!

- 4) It is difficult to include FpH into this section as an improved technology – though it is a spectacularly powerful method of water harvesting. What has not occurred is proper description of the technique - that will enable accurate flow measurements and hence management of the resource consistent with the aims of the Plan.
 - a) My Preferred outcome is that the Royal Commission endorses FpH, provided it is measured at the point of take and that the environment and landowners on either side are not impacted. That is the take is within Water License conditions.
 - b) Clearly the Act to date has not addressed FpH.
- 5) The 450 GL upwater currently stands outside of the MDBP. I would support its inclusion if reasonable savings could be negotiated from the huge losses in the Medinbee and Lower Lakes. —
- 6) No – just people of goodwill working together to complete the Plan.
- 7) Current non-compliance issues in the Northern Rivers are in our view encouraged by non-existent rules and some culture of winks and nods.
 - a) Indeed, press reports tell of new land owners in NSW reporting to Northern Rivers authorities that they think they may have purchased land that has illegal structures -after a cursory check the response is NO -you can carry on. (we suspect in this case -both parties know FpH is mostly not kosher?)
- 8) In stream and on flood plain obstacles should be declared illegal where natural flows are impeded.
 The current WRP's being incomplete are making prosecutions for water theft more difficult. Solutions such as satellite measurements of irrigations and land areas are proposed as tools to determine take -but are not equitable with Southern Basin standards. Any measurements at the farm gate that does not include transmission losses, storage losses including evaporation losses and other system losses are not fairly managing water for the triple bottom line target.
 - a)

- b) Friends returning from Queensland in early April were curious as to why the Northern Rivers were still mostly dry after some substantial rains earlier this year. Inquiries at a local service station explained "that's because we pump it all into dams". Damming when the dogs are barking it?
- 9) I suspect current best practice enforcement and compliance is adequate generally. Authorities efficiencies would seem to be the greater variable. To be fair an Authority that is charged with oversight for the Plan where it is deficient will have many difficulties maintaining staff efficiency let alone any natural ecology.
- 10) I believe in general monitoring and metering is accurate but that it is not applied with equity across the Basin. Losses in channels, dams and irrigation systems are taking losses and should be counted as use. There will be large amounts of environmental water deliverable to the system if equitable rules are applied to all take!
- 11) The highlighting by recent media of FpH taking water released upstream for the environment illustrates perfectly that:
 - a) FpH is not a controlled or controllable take in many instances
 - b) Many FpH takes are not currently reported "in normal total take accounting" so that closed sum accounting for stream events is never possible.
 - c) System management therefore can not be possible.
 - d) Reference to the 450 GL as being part of the Plan is both presumptive and unhelpful at this point. We should be able to see the Plan's 2750 GL resolved first.
- 12) I believe that if the Plan is properly completed and complied with then the "enhanced environmental outcomes" will be delivered overtime. That the system will be able to be managed for future climate change.
 - a) Indeed, I expect that the completion of the Plan will find new environmental water that is currently being sorted care of an incomplete Plan. The latest desire to add a further 450 GL of environmental water may be a large beneficiary of the Plans completion!
- 13) The MDBA has won widespread respect from most people who live work and play within the beautiful MDB landscape. It has won even stronger support from urban people. To keep this faith the Plan needs fulfill its promise!

"I ask that the Royal Commission finds the Plan and the Act incomplete in the Northern Rivers and makes recommendations that will bring the triple bottom line results the Southern Rivers part of the Plan is delivering – to the Northern Rivers – so that equity can be seen, felt and accounted?"

Our children and grandchildren expect that we will leave the MDB in a better condition than we found it.

DEFINITION

Floodplain Harvesting (FpH)

A means of extracting water from river systems either using gravity and/or mechanical pumping into very large “earth tanks/dams”, frequently via many kilometres of channels.

- *This method is enhanced by using floodwaters because of the added gravitational benefits.*
- *Gravity is often assisted by the placement of illegal structures in river beds – so that flooding waters rise even higher.*
- *The method can be so successful in the case of minor floods that almost all the water is captured.*
 - This last point highlights how antagonistic this method is to the intent and language so frequently applied by all who have been involved to date in designing and implementing the MBDC Plan – I think of “water sharing”?
- *Water arrives into dams at times unrelated to crop sowing times. The vast area of some of these storages can hold water for two or more years of cropping. However, their shallow depths and annual evaporation losses near 2M pa throw up proper questions of efficient utilisation of this valuable resource.*
- These often-ephemeral streams mean that opportunistic water harvesting that is unrelated to cropping cycles is the only way water can be available for irrigation.
 - *My point is that take by whatever means should be in accord with MDBC principals.*
 - *The evidence currently shows that money and power are lying together in the same bed – whilst the environment and ordinary people are getting the rough end of the pineapple!*