

SUBMISSION TO MDB PLAN INQUIRY SECRETARIAT.

FROM **RON PIKE.**

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TITLE: **A BASIN PLAN THAT WORKS FOR ALL.**

**Profile – Ron Pike.**

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Ron's Grandfather Charles Pike Senior, was one of the first settlers to take up land on the Murrumbidgee Irrigation Area in 1912. Starting out with a fruit farm near Fivebough, which became Fivebough Swamp as a result of irrigation drainage. Charles later taking up what was then called a large area farm on which he grew rice from its introduction in the 1920's.

Ron grew up on his Dad's rice farm at Murrami and his earliest memories are of learning how to fish and understand the western rivers from a Dad who deeply understood and appreciated every aspect of the landscape in which he lived. Today he would be called an environmentalist; as understanding the river ecology and maintaining its health was his passion.

Ron's knowledge and understanding of the rivers of the MDB is the result of a lifetime spent on these streams, fishing, boating and using the waters for irrigated agriculture. Maintenance of a healthy ecology on these streams, taught by his Father, is central to everything that Ron advocates.

Ron was one of the first farmers to take up land at Coleambally and in 1961 was officially the first farmer to use water from the Snowy Scheme when water was turned onto Farm 1 Coleambally that year.

With the increasing volumes of water then available, Ron began developing irrigated agricultural land on what were grazing properties along the Murrumbidgee Valley and the Yanco Creek. It was work he continued until he retired. All of Ron's developments included man made wetlands as part of the irrigation system.

Now retired in Coffs Harbour, Ron is still politically active and has been very involved in the pursuit of better water policy. His lifetime aim is to see Australia with abundant water for all for the foreseeable future.

Now recognised as an expert on water and dams, particularly the Murray Darling Basin Rivers, Ron has provided expert advice on water conservation, dams and irrigation to several Government enquires and regularly gives presentations on water and the need for more water conservation structures.

## **A BASIN PLAN THAT WORKS FOR ALL.**

**Background:** The incursion of the Federal Government into the State's constitutional right to the management of rivers and their water; was the result of sensationalist and mostly false claims made during the millennium drought. Emotional sophistry replaced truth and reason as it was claimed that our rivers were dying as the result of extraction by irrigators and lack of flow in the Murray was the cause of hyper salinity in the Coorong. Claims of dying river red gums, drying wetlands and species loss were repeated with graphic but mostly misleading detail.

**The Result:** Is a Plan that is costing Governments both revenue and credibility as regional communities across the whole MDB are regressing. The businesses that grow, process and transport our food and fibre are being destroyed by lack of water and increasing prices for what is available. Incredibly, the Plan is badly impacting the environment it is supposed to be assisting and genuine environmental issues are not being addressed.

What has happened is the removal of water from thousands of hectares of productive farmland that was also pristine habitat for aquatic species. Much of this habitat is in farmers cropping fields and run-off wetlands established by farmers over several generations.



**Productive farmland providing pristine habitat for aquatic species.**



**Being returned to dry land by the counterproductive MDB Plan.**

Productive land is being rendered unproductive and as a result uninhabitable to aquatic species as water is removed only to be flushed to the sea, in the mistaken belief that this is beneficial to “The Environment;” demonstrating that those responsible have little understanding of what “The Environment” is.



**As the MDB Plan Destroys Productive Fields like this.**



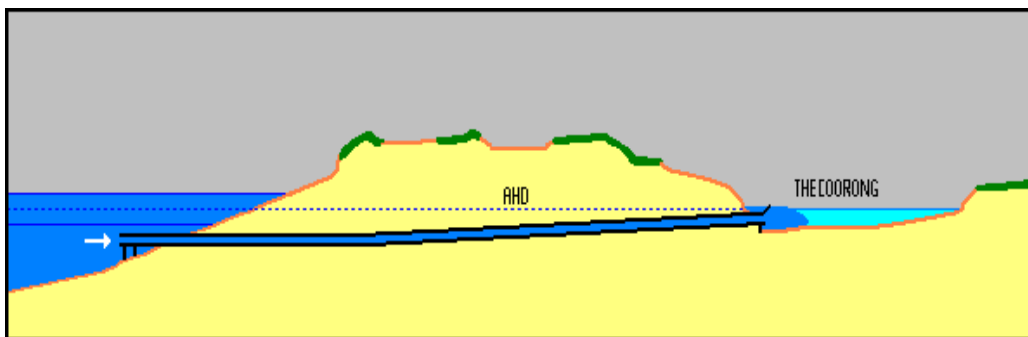
**And Turns them into Wasteland like this.**



**As a result, Communities die and the people leave.**

**There is a Better Way:** The Plan outlined below acknowledges and highlights that there are environmental problems in the MDB that need and can be corrected. Practical implementation of this “Better Way” would not only provide superior environmental outcomes; it would result in healthier waterways and more productive regional communities. It would restore both the Coorong and Lower Lakes to healthy estuarine habitat for more desirable aquatic species. It would provide for all of our increasing water needs for the foreseeable future. It would provide water for increased irrigated crop production in the Basin States and guarantee more fresh water for South Australia.

**The Coorong:** The history and properties of the Coorong are widely available and will be presented in detail by others to this inquiry. It is sufficient to say here that hyper salinity and its problems for aquatic species have been ongoing for decades and are related to diversion of feeder creeks and unrelated to flow in the Murray River. However it is a problem that is worth permanently correcting and easy to do so. Redirection of feeder creeks into the southern lagoon, coupled with high tide ocean inflow would be a permanent cure for the Coorong's ills. Large pipes under the sand dunes in several places would allow large volumes of sea water to flow into the Coorong between mid and high tide. Free swinging flaps on the outlet would automatically close as the tide dropped. Gravity would propel this water towards the so-called Murray mouth flushing hyper salinity out to sea. This would ensure that when creek inflow was negligible in drought times, the incursion of sea water would maintain a healthy Coorong.



**The Mott Plan.**

**Lake Albert:** There is rightly concern of increasing salinity in Lake Albert, aggravated by its very shallow depth. This problem could also be overcome in a similar manner with one much larger pipe from the sea. The high tide inflow would flush through Lake Albert into Lake Alexandrina and out to sea, combining with the Coorong flow to increase outflow to the ocean, maintaining a healthy channel without dredging and more importantly without wasting large volumes of productive water as the present Plan does.

**The Lower Lakes:** This previous estuarine environment was changed to a fresh water regime by the building of barrages 75 years ago. While this was done for the then worthy reason of providing fresh water for both municipal and agricultural use, it is now causing unacceptable harm to the whole Basin and all other water users. It is the barrages that are the ongoing cause of lack of flow through the so called Murray mouth. The ineffective use of vast quantities of fresh water to correct this problem is the biggest mistake and greatest waste of water by the present Plan.

A CSIRO model and also three earlier studies of evaporation from the Lower Lakes which used different techniques including pan evaporation indicate evaporation rates from the Lower Lakes are in the order of 1,171 to 1,445 mm per annum. This rate is converted to gigalitres of evaporation per year in the chart below.

Period of study	Place of study	Evap. mm	Reference	GL pa
1967/68	Alexandrina & Albert	1280 pa	Shepherd 1971	960
5 days in 1975	Lake Albert	3.21 pd	Raupach 1976	878
1990 to 1992	Lake Alexandrina	1445 pa	Kotwichi 1994	1,083
Various between 1971 & 1993	Alexandrina & Albert	1323 pa	McJannet et al	992

From these CSIRO figures it is apparent that maintenance of this artificial fresh water domain in what should be an estuarine environment is costing Basin water users around 900,000 ML of water per year. That is an unnecessary loss of nearly Two Billion Dollars of economic activity from Basin communities.

The way we overcome this loss and maintain Lake water levels for recreational activities is in Ken Jury's excellent work being presented to the inquiry titled "A Better Way."

The most flagrant untruth justifying the present Plan was the claim that the building of dams and the development of irrigated agriculture has resulted in less floods. That is less river flow events that put water over the river bank and as a result fill the numerous Billabongs and low lying areas with water, triggering an aquatic species breeding event.

Such argument seems logical but sadly was false, as demonstrated by the flood records from Wagga Wagga on the Murrumbidgee River. Flood records from the Goulburn, Murray and Lachlan Rivers tell a similar storey.

The facts are we have had more over the bank events since we built the dams than we had in recorded history before. The reason is very simple and while rainfall records show a slight increase over MDB catchments, it is the development of irrigated cropping and as a result increased population that has increased run-off into all of our streams, as documented here.

Changing land use and the building of towns and municipal works has increased run-off across the Murray-Darling Basin.

## **History of Murrumbidgee Flood Flows at Wagga Wagga.**

A height above 8.2 metres at Wagga Wagga is considered a significant flood. (approximately 1M over the River banks)

**1840** Murrumbidgee becomes chain of waterholes and horse races held in bed of river.

**1844** October Flood of 10.97 mts.

**1845 – 1852** No floods for 8 years.

- 1852 June- Flood 10.67 mts. 80 people drowned at Gundagai; third of population.
- 1853 July -Flood 10.9 mts.
- 1854 – 1867 No floods for 14 years. Lachlan, Murrumbidgee and Murray all run dry.
- 1867 July – Flood 9.32 mts.
- 1869 July – Flood 9.09 mts.
- 1870 Three floods all above 9.2 mts. in year.
- 1871 – 1878 No floods for 7 years.
- 1878 November – Flood 8.99 mts.
- 1879 September – Flood 9.35 mts.
- 1880 – 1887 No floods for 8 years.
- 1887 July – Flood 8.38 mts.
- 1887 – 1891 No floods for four years.
- 1891 Four major floods in year.
- 1892 October – Flood 8.34 mts.
- 1894 Five major floods in year.
- 1894 – 1900 No floods for 6 years. Rivers again run dry; calls for Government to act.
- 1900 Two floods in year.
- 1905 July – Flood 8.38 mts.
- 1906 October – Flood 8.89 mts.
- 1906 – 1916 No floods for 10 years. Government legislates to build Burrinjuck Dam.
- 1914 – 1915 Murray and Lachlan run dry. Murrumbidgee kept flowing by releases from Burrinjuck.
- 1916 Two floods in August and October.
- 1917 Four floods in year.
- 1922 July – Flood 9.17
- 1925 May – Flood 10.13 mts.
- 1925 – 1931 No floods for 6 years.

- 1931 Two floods above 8.6 metres both in June.
- 1934 Two floods in August and October.
- 1934 – 1939 No floods for 5 years.
- 1939 August – Flood 8.61 mts.
- 1939 – 1950 No floods for 11 years. Burrinjuck, Eildon, Hume and Wyangla dams kept the rivers flowing.
- 1950 Three major floods in year.
- 1952 Four major floods in year.
- 1955 August – Flood 8.43 mts.
- 1956 Eight flood peaks at Wagga. Wettest year in Lower Basins history.
- 1959 October – Flood 9.17 mts.
- 1960 September – Flood 8.99 mts.
- 1960 – 1970 No floods for 10 years.
- 1970 Two floods in year followed by flood in February 1971.
- 1974 Five floods in year.
- 1975 Four floods in year, followed by further flood in 1976.
- 1978 September – Flood 8.92 mts.
- 1978 – 1983 No floods for five years.
- 1983 August – Flood 8.86 mts.
- 1984 Two floods in January and July.
- 1984 – 1989 No floods for five years.
- 1989 Two floods both in April.
- 1991 July – Flood 9.61.
- 1993 October – Flood 8.8 mts.
- 1993 – 2010 Sixteen years with no floods. Our longest drought but rivers kept running.
- 2010 Floods in October and December.



2012 Flood March 10.56 mts.

This summary is compiled from historical records held by Wagga City Council and clearly shows that in the 75 years of flood records up to the storage of water in Burrinjuck dam, there were 25 floods at Wagga Wagga.

Whereas in the next 75 years there were 48 floods; almost double the floods before the dam was built.

The flood records for the Murray, Goulburn and Lachlan Rivers tell a similar story; a story hidden by the Murray Darling Basin Authority, because it undermines their "raison d'etre".

## **A BETTER WAY: A NEW MURRAY-DARLING BASIN PLAN.**

### **Based on these Facts:**

1. Recognition that most of the claims made to justify the Federal Government's involvement in water and river management, manifested in the MDB Plan were in fact false.
2. Appreciation that management of the water resources of the MDB over recent decades were in the best interests of the Nation, mankind and were beneficial not prejudicial to the environment.
3. Acceptance that we cannot keep growing our population and economy without building more dams to store available water in times of plenty. Man has yet to develop a better way of providing for future water needs than dam building.
4. That releasing water above that required to maintain all of stream flow and extraction requirements, has no environmental return. It is flagrantly wasting a resource we can productively use elsewhere.
5. Water is our most abundant renewable resource and there are numerous sites to build further storage on most of our rivers and creeks. These storages all become pristine habitat for aquatic species and recreational facilities for mankind.
6. There are environmental problems in the MDB which do need attention and these are:
  - a) Eradication of European Carp.
  - b) Correction of hyper salinity in the Coorong.
  - c) Return of Lower Lakes to an estuarine environment while maintaining Lake water levels.
  - d) Providing all of stream flow for all major rivers, especially the Darling and its tributaries.
7. The introduction of Sustainable Diversion Limits (SDL's) is impractical and unworkable. Because all of the streams in the MDB go from years of flood flow to years of little or no flow; the management and use of our water to best advantage has to be flexible to reflect this variability. That is why for best results we must have licensed volumes above likely average extractions, as we previously did. The SDL's implemented by the MDB Plan ensure minimum

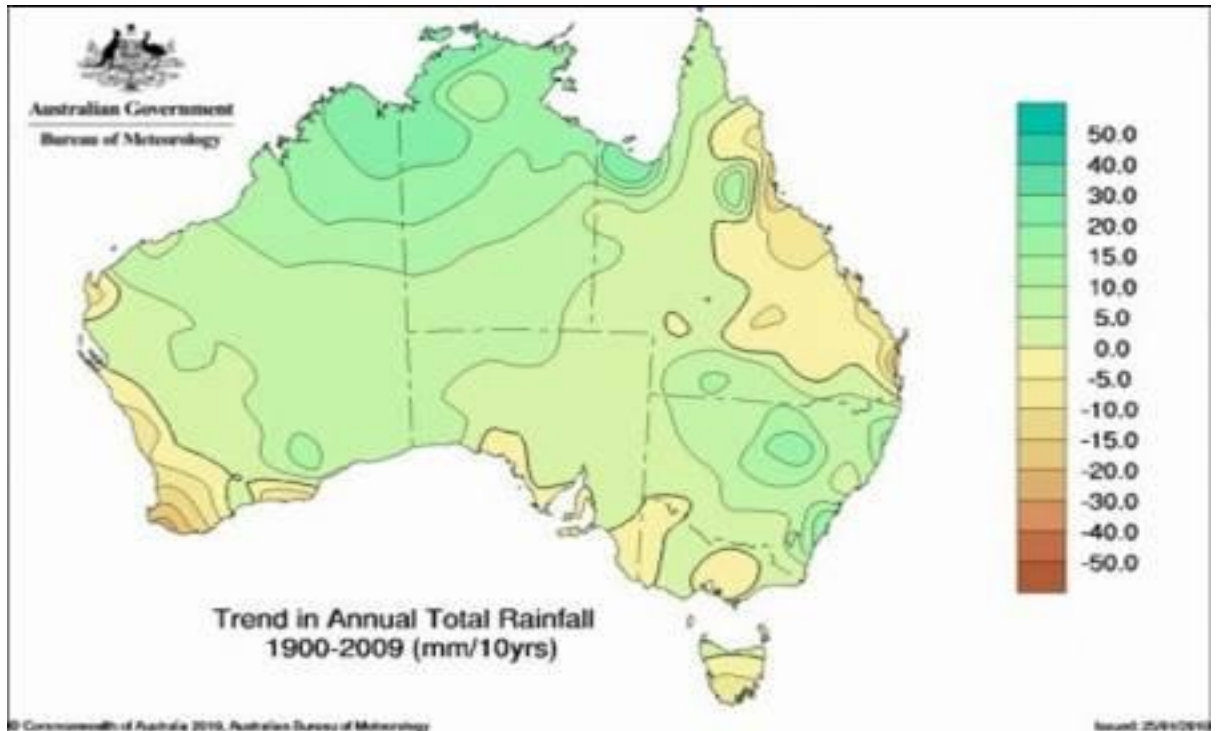
irrigated crop production and maximum water wastage every year, regardless of water availability.

8. Licenses to use water for irrigation should only be held by entities which control irrigable land. These licenses should only ever be traded to similar entities within the valley in which they were issued.
9. River red gums are flood tolerant and not flood dependant and any artificial watering is also flagrant waste of a productive resource.

### **THE STEPS TO A BETTER WAY - A BETTER PLAN:**

1. Rescind the existing MDB Plan to be replaced with a strengthened multi State agreement which presently guarantees South Australia 1,850,000 ML (except in exceptional circumstances), increasing this guarantee to at least 2,000,000 ML per year.
2. Sell all water licenses presently held by the Commonwealth Environmental Water Holder, to those who have land to irrigate within the MDB.
3. Use the income from these sales to correct the Coorong problems as detailed above and to return the Lower Lakes to an estuarine environment as detailed by Ken Jury.
4. Set up the “Australian Infrastructure Fund;” specifically to build income earning infrastructure such as dams, hydro power plants and transport facilities. Money from the resale of irrigation licenses and money earmarked for the MDB Plan would be the seed capital for the Fund.
5. Immediately commence the building of more water storage facilities across the Basin; specifically assessing these as a priority:
  - A. The Lake Coolah- Stony Point off stream storage -Murrumbidgee.
  - B. The upper Clarence – Gwydir diversion. (1,200,000 ML P.A to the Gwydir)
  - C. Several storages on the Lachlan and its tributaries.
  - D. Diversion of high flows in the Kiewa River into Hume Dam, or dam on Kiewa.
  - E. Increasing the capacity of Lake Buffalo.
  - F. Building a number of weirs on the Darling River.
  - G. Reassess the Chowilla Dam as a permanent guarantee of SA’s water supply.
  - H. A dam on the Billabong Creek.
  - I. Numerous other sites have been assessed and could over time be built.
6. Implement research into permanent control of European Carp. Environmentally there is no more important objective.

## Annual Rainfall Trend.



This Plan would very quickly return growth to the communities of the MDB and as a result increase employment.

Rather than the present Plan's ongoing cost to the Government, this Plan would increase Government receipts.

It would correct the real environmental problems within the Basin without wasting fresh water as is happening with the ineffective present policy.

Aquatic species and mankind would both have enhanced environments as a result.

This Plan would stop wasting water and use water in the National interest to the long lasting benefit of man and the critters with which we share our environment.

## A Basin Plan that Works for All.

Ron Pike.

Phone:

