M.I.A Communities Policy on Water Management in the Murray Darling Basin

There are various aspects of natural resource management that need addressing as Australia's population is projected to grow by 67% by 2050 and predominantly on the East Coast, depending heavily on the Murray Darling Basin to produce its staple foods afforded by the various infrastructure. This coupled with the fact that the agricultural industry is the 4th largest industry by GDP in Australia and a key value add industry enabling the farm gate value to be multiplied by 7 times before it gets to the consumers table.

1. MURRAY-DARLING BASIN PLAN

The Water Act 2007 was described to the public as legislation to balance social, economic and environmental factors for water management in the Murray Darling Basin. While the objectives of the Act acknowledge these values, the body of the Act does not. The basis of this triple bottom line balance attempt goes back to a decision in 1993 to review the amount of water being extracted from the Murray Darling Basin System and limit it to the level of take at that point in time (being 10,680GL per year), introducing the cap or upper volume that could be extracted annually, on average, from each valley.

There are over 110 reports commissioned by multiple state and federal governments that provide evidence that the current implementation of the Basin Plan is having significant negative, social, economic and environmental impacts.

This contravenes the objectives outlined in the Objects of the Water Act 2007 of which the Murray-Darling Basin Plan governed by the Murray Darling Basin Authority is the regulatory instrument to achieve. On this basis the federal government needs to be held accountable to redirect this water reform back in line with delivering back balanced positive outcomes for basin communities. The MDBP is intentionally complex, various aspects of it need addressing:

- Quarantine remaining funds left under the $13.2billion Murray Darling Basin Plan, principally the 450GL for WESA & the 605GL SDL suite of 36 projects, on the basis that the 450 has prohibitively high socioeconomic costs and that the 605 SDLs whilst a measure to reduce buybacks, they actually impact reliability

- Maximise the net economic returns to the Australian community from the use and management of the Basin water resources, with no increase in use elsewhere in the basin impacting another valley or its water license holders

- Funds to remain quarantined until a Federal Royal Commission has been delivered on the Murray-Darling Basin Plan and Murray-Darling Basin Authority. The likely wide-ranging Terms of Reference are to be decided upon by community stakeholders involved in irrigation

- Investigate why the MDBA will not permit changes to the Basin Plan, when the evidence is compelling to do so

- Investigate on what basis buybacks were justified upon, 75% of all MDB buybacks have occurred in the Southern Basin, when collectively these valleys never breached their sustainable caps from 93/94 through to 2007, which was the entire premise of federal water reform

- Establish scientific tribunal to independently evaluate why the MDBA has been able to circumvent the academic sanctity of a peer reviewed report and therefore not adherent to the best available science as Mr Walker identified in the SA Royal Commission "*this is a serious and fundamental requirement that it appears has most regrettably not been consistently obeyed"*

- No regulatory instrument may impact on the security of any water entitlement, a review will be conducted of the regulatory changes to adhere to the Water Act and Basin Plan as to whether changes have impacted reliability and therefore viability of regional businesses in the Basin Plan, if the reviews finds there has been regulatory impact then they will be duly compensated

- Fully implement the National Water Initiative 2004 (many of which aspects are included individually)

- Localised decision making with longstanding organisations such as landholder groups must be paramount, government employees are often shifted from department to department with little knowledge of their new role when they are employed and are moved on just as they are beginning to understand the complexities of resource management

- No further buybacks from the productive sector, outright or for efficiency projects

- Audit, measure and evaluate environmental water, there are multiple government agencies overseeing environmental watering, these need to be centralised into the CEWH, with environmental water kept for environmental purposes only (not to be sold or swapped)

- Flood years and major rainfall events factored into environmental water allocation to provide a mechanism to deduct water from the environment for productive use, using best available scientific knowledge, that includes empirical evidence

- Re-assess, using empirical evidence against modelling to gauge actual ecosystem requirements, as several peer reviewed reports indicate that the magnitude and frequency of watering is not consistent with the needs of the ecosystems

- Clearly define trading zones, develop and apply exchange rates to water traded into different valleys to ensure delivery losses are not socialised to users with permanent entitlements but to the individual demanding the water at specific location, just as the Commonwealth Environmental Water Holder does when demanding overbank deliveries. These to be published transparently and local governments to be made aware to notify businesses of delivery risks associated with expanded or greenfield developments

- Suspend FPH until accurate metering, licensing and public monitored, real time compliance of take has been implemented to ensure there are no negative downstream consequences to the triple bottom line, to be capped at 210GL annually across the entire Northern Basin. The telemetry to accurately gauge the level of FPH take is available abroad and used by the US Navy for Navy Seal diving but has been deliberately avoided because the level of development in the northern basin far exceeds the licensing limits of 210GL

- 100GL to be returned to VIC/NSW split 50/50 and the federally funded de-salination plant to operate at full capacity annually, decreasing Adelaide's reliance on the Murray River, easing channel capacity concerns, losses and providing 100GL back to the productive sector

- As in the NWI 2004 and Water Act 2007 it is imperative that a federal water registry is brought online to state unambiguously the ownership of the water entitlement, to foster public confidence in water management, this has been legislated since 2004 and is yet to be delivered

- Move to a user pays system for permanent entitlement water charges, similar to other services, if a particular valley is on 0% allocation because of drought, then the irrigator should not bear any costs, this should be underwritten by the federal government as it is in the national interest to be net exporters of food and to the betterment of other countries abroad

- Review the Murray Darling Basin Agreement, schedule 1 of the Water Act, it prioritises 1850GL of water to the SA border (based on river heights for paddle steamers) in all but the driest of years, often leaving NSW licenses on zero even when the other major contributing river to the Murray resource across the three states, the Darling River, is bone dry

- South Australian Loss and Dilution Flows to be re-credited to the productive sector in NSW & Victoria as they were set aside when Dartmouth was built and since salt interception schemes have been implemented at various points are not impacting water quality any longer. According to the SA Government, 350GL of this 696GL dilution flow ends up in the Lower Lakes

- Transparent and translucent flows to be re-credited to the productive sector as they were set aside in the Murrumbidgee Valley with no compensation for reduced access and reliability. There is now more than sufficient water in environmental accounts to conduct these flows if the management deems them necessary.

- Voluntary Contributions in the Southern Connected Rivers to be re-credited to the productive sector. There is now more than sufficient water in government environmental water holdings, state and federal, to achieve environmental outcomes and conduct EFRs. Irrigators still pay all fees and charges for the VCs and that water is still represented as part of the irrigator asset in the resource set.

- Independent ombudsman to oversee, mediate and resolve delivery complaints with all water delivery providers, government and private, similar to the telecommunications and energy sector.

- Repair the regulatory, deliverability and pricing inconsistencies in the water market that have been outlined in the ACCC report.

2. INFRASTRUCTURE SOLUTIONS

There are various viable infrastructure solutions that could be commissioned by the federal government as individual or joint state ventures to create wealth through employment and increase business opportunities by, with some infrastructure and earthworks, properly harnessing the natural assets of this great nation in a sustainable way. The water savings found once complete will be split evenly between the states that share hydrological connection and have foregone water to achieve a previous target.

- Simultaneously build Lock Zero and Automate the Barrages consistent with Ken Jurys 'A Better Way' 2016 and Professor Peter Gell's peer reviewed report - Watching the tide roll away – contested interpretations of the nature of the Lower Lakes of the Murray Darling Basin

- Reinstate the historical average flows into the Lower Limestone Coast PWA unconfined aquifer that traditionally flowed into the Coorong at, according to the SA Government, 425GL/y. Additionally, according to GeoScience Australia, groundwater discharge was an important factor affecting flow and water quality in the Coorong in the past, this is a key, yet misguided target of the Basin Plan where the MDBA is targeting

660GL/y of discharge through the barrages into the Coorong, which due to the topography of the Coorong and point of entry, hydrologically will not travel from the Northern end of the Coorong to the Southern.

- The Clarence Scheme - In 1985, Jack Beale (a former NSW Minister for Conservation and Environment) as Chairman of the Water Resources Foundation of Australia presented a proposal for a full investigation of the hydro-electric Scheme, which he described as a "sleeping giant of water, power and natural wealth". This scheme could divert two million megalitres (four Sydney Harbours) annually to the MURRAY- DARLING BASIN. Pump storage of 3000 megawatts could provide peak electrical load to NSW and Queensland. This would provide the much-required inflows into the Basin and has multiple value add opportunities as it moves downstream

- Ocean Connection - Pipe (+valve) Infrastructure through Coorong Sand dunes to allow marine waters into Southern Lagoon. Ocean water replaces the loss of freshwater flows from SE of SA, currently diverted by drainage schemes away from the Coorong out to the Southern Ocean. Enables immediate reduction in hyper salinity of Southern Lagoon therein delivering ecological health and native fish benefits. According to a SA SARDI Aquatic Sciences paper, no.22 this may provide potential to revive the Mulloway industry