

# Burdekin Delta Water Boards

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### Joint submission by the North and South Burdekin Water Boards

### to the Senate Rural and Regional Affairs and Transport References Committee Inquiry into Water Policy Initiatives.

#### (a) The development of water property titles

- (i) In general, the introduction of the perpetual title system proposes an administratively efficient system. It cuts down on the bureaucratic need to renew licenses every few years that were generally automatically renewed anyway. The shares based system also ensures that no more water than is available will be removed from the system. Ranking the order of access by allowing towns and environmental needs to be satisfied first is another protection in the system.
- (ii) However, the titling system reaches a difficulty where the customer is not an end water user, but rather a water system. This is the case in the Burdekin Delta where the customer of the Delta Water Boards is in fact the aquifer rather than farmers. The charter of the Burdekin Delta Water Boards has as its primary purpose, the environmental health of the aquifer, i.e. water table management. Given that surface water is used to help replenish the aquifer in the Burdekin Delta, end user property title which allows trading of surface water, may actually limit the capacity of the Burdekin Delta Water Boards to manage and replenish the aquifer that they have responsibility for, as surface water traded within and out of the area will reduce the available water to replenish the aquifer.

Shifting allocation to end users with an individual ability to trade (rather than being in the hands of the Water Boards) would make it impossible for the Boards to direct this recharge effort. The situation is further complicated by the fact that science is not yet available to accurately determine on a whole of system basis, what is the sustainable conjunctive allocation of surface and groundwater.

There is also the problem of efficient operation of water meters in poor quality groundwater. For example, precipitation of rust bacteria is a relatively common problem with groundwater, which current technology is unable to address.

The development of more cost effective metering should be a focus for research and ideally should be a prerequisite to across the board metering particularly with groundwater.

- (iii) A clear definition of 'water' or specification may also be necessary – whether the water is groundwater or surface water; turbid or fresh water; potable or non potable; raw sewerage or tertiary treated sewerage water. While surface and ground water is usually vested in the Crown, the ownership of the other

types of water may need to be clarified and a property right or title developed for each category. This could assist in potentially developing a market for them and may lead to more effective use of these resources.

- (iv) Another area where the system could be improved is for the states to improve their registers of water licences. Some states are more advanced than others. Given the separation of water from land, there is a great need to have water licences on par with land titles especially as water licences are likely to become the main form of guarantee for financial institutions when lending money. In some states, the need to clean up ownership details of water licences has delayed the move towards a Torrens title system for water licences. It is acknowledged that the licence data needs to be complete and accurate before governments should be expected to provide a guarantee or indefeasibility of the information on the register. However, it may be that additional resources have to be put into cleansing this data and speed up the move towards a Torrens Title for water. This should be made a more prominent benchmark criterion for measuring states progress on the NWI.

## **(b) Methods of protection for rivers and aquifers**

Currently Queensland and other states are progressing the writing and implementation of water management plans for each of their many water systems. These plans are usually very detailed and put in place rules for how the water system is to be managed and shared, However in the Burdekin Delta, the two are closely linked where the aquifer is dependent on the surface water. Inappropriately in our view, the plans for surface and ground water are being developed separately and could fail to acknowledge the significant interaction between surface and groundwater systems if continued to be developed in this way. The NWI Inter-Governmental Agreement clearly seeks to recognise (S23 x)“...the connectivity between surface and groundwater resources and connected systems managed as a single resource.”

Not all water systems are the same, nor in the same environmental condition. It is therefore inappropriate to treat them the same way. Further, the plans do not allow for easy comparison nor understanding from people outside that water system. When the general public hear of a river or aquifer in poor environmental condition, a generalisation is made on all rivers and aquifers. Effectively, all water users across the state are then tarnished with mismanaging their own water systems.

This may or may not be the case, but by then the damage is done. Government might then react to this and put in place state-wide policies that are appropriate for the example highlighted, but not appropriate for other parts of the state. This places pressure on the water users who may be doing the right thing in not overusing the system, or who are making serious and genuine efforts to rectify past damage.

The keys here are therefore to localise the policies and management of water systems, but also to make them more transparent. This leads to a better understanding by the public of the real environmental state of different water systems and avoids the “one size fits all” response by government to problems.

There are two main ways to do this.

- (i) To create well-funded Catchment Management Authorities that allow for the implementation of local policies, provide local responses, local management and representation. This model has been well used in NSW and Victoria.
- (ii) The second way is to have a ratings system for the state of rivers and aquifers. Criteria could be established for categorising or rating each system, based on the degree of (over) allocation, rate of river flows or groundwater recharge, biodiversity, dependency of local wildlife on the water system, urban dependency, future planned use, local climate etc.

This matrix of criteria could then help determine the rating for a particular water system where a scale of say one to five could be used. Grade One could be an environmentally good state with only the need for continued monitoring, up to a Grade Five requiring urgent and drastic measures to restore the environment.

Such a grading system provides a snapshot assessment that the public (as well as media and government) may find easier to understand. In so doing, it may lessen the likelihood of sweeping, broad brush and locally inappropriate policies being implemented by government.

The Burdekin Delta is one area that may rate well in such a system, as the primary purpose of the Burdekin Delta Water Boards is to manage and replenish the aquifer. Broad, state-wide policies such as end user water property title, water trading, water resource charges, standard measuring and monitoring technology etc are sometimes inappropriate and may actually hinder the careful environmental management that has occurred for many years.

It is here that management structures such as that operating in the Burdekin Delta in Queensland may be a useful model for other areas. Localised, autonomous, self funded, with local representation, whose primary goal it is to provide an environmental management service on behalf of the government.

### **(c ) Farming innovation**

- (i) A localised system of management and policies as described above would help encourage innovation. In the Burdekin Delta in Queensland, where a unique, localised system of managing the groundwater source has been operating for 40 years, the health of the groundwater system has been successfully managed.

Forty years ago, the aquifer was on the verge of collapse. The Queensland Government established autonomous, self funded bodies – the North Burdekin Water Board and the South Burdekin Water Board – with the primary goal to manage the groundwater system in such a way as to avoid a collapse of the aquifer. What followed has not only meant that the groundwater system has remained recharged ever since, but a successful irrigation industry has also developed employing approximately 1500 people in the region.

The structure operating in the Burdekin Delta where infrastructure, monitoring, metering etc has been funded by local water charges, now looks set to be penalised by the imposition of the Water Resource Charge proposed by the Queensland Government.

In effect the policy - designed to recover government costs of providing water resource services - will force the water users in the Burdekin Delta to pay twice for a service not provided by the government – once locally and then again to the government.

The Queensland government in implementing this policy is in fact implementing the NWI principle of achieving full cost recovery of managing water. This is recognised and understood. So it may be the NWI needs to be sufficiently flexible to allow for such circumstances or the Queensland Government does when implementing it. Either way, a broad-brush, insensitive, one size fits all policy, will lead to a severe penalty on this group of water users, throttling future innovation while penalising them for past innovation.

At least part of the answer in encouraging innovation therefore is to localise the policies.

- (ii) On a more general level, encouraging on-farm innovation does not mean government micromanaging a farming enterprise. While pricing may have some role in encouraging the efficient use of water it is an extremely blunt instrument which may inhibit innovation. The belief that the mechanism of water trade and price will drive water to its highest value and most efficient use is flawed. The price mechanism sometimes fails to take account of public benefits such as the environment or social issues. It may well be that price may drive water to those who can best afford to pay for it, e.g. the suburban backyard in large cities, which will certainly not be its highest value or productive use and doesn't guarantee efficiency or good environmental outcomes.
- (iii) In recent times, it has become apparent how difficult it is to find significant water savings for the environment through large scale engineering projects. This is being experienced in NSW, Victoria and South Australia with efforts struggling to find the Living Murray water savings.

However, there still remains ample opportunity to find water savings on-farm. The simplest way to achieve this may be for the funding body (such as the National Water Fund) to enter a contract with a farm owner to receive an amount of water in one, two, three or even five years. The funding body provides an amount of money up front (amounting to an interest free loan), but with a guarantee that the water will be delivered at the end of the contract period. It is then up to the farmer as to how the money is invested to achieve water savings – and this will obviously depend on the local conditions, types of crops grown etc.

If the farmer succeeds at putting in place efficient, innovative measures to save more water than is required to be delivered back, then this becomes the farmer's dividend for making this effort. If they fail to make enough water savings to cover the contracted amount of water, then the contract must still be fulfilled out of their licensed water entitlement. The farmer will have to operate in future with less water.

Any farmer, however, would be unlikely to enter such a contract unless they had done their sums and established a sound business case for entering such an arrangement.

In effect, such a scheme could be seen as a no interest loan, or even an outright purchase. But where it adds something new is that the farmer knows it is water that must be delivered at the end, not just repaying a loan. They know it is not enough just to be profitable (by relying on higher crop prices or favourable conditions), but rather they must put in place the on-farm efficiencies and implement innovative practices, to deliver *water* at the end of the contracted period. It encourages them to be smart about their business, not just lucky and may also assist in getting over some of the reluctance to borrow money from banks to fund innovation.

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This submission was authorised at the Board level on behalf of both the North and South Burdekin Water Boards.