

**Submission  
No 2**

**INQUIRY INTO RATIONALE FOR, AND IMPACTS OF,  
NEW DAMS AND OTHER WATER INFRASTRUCTURE IN  
NSW**

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## Legislative Council Dams inquiry.

### Wyangala

#### 1 (a) The need for the projects.

There is no need for this project.

The 2003 Lachlan Regulated Water Sharing Plan was the result of several years of negotiation between industry, community and environmental interests. While no plan is perfect the Lachlan WSP is probably the best in NSW, with a good balance between providing for the High Security needs of towns, stock water supply, the provision of Basic Rights access, water for the irrigation industry and the environment.

The Lachlan is regarded as having the most unreliable supply of water in NSW due to its location which can't be changed. Too many irrigation licenses were originally issued but that has been fixed by the allocation system to General Security licenses. The low yield of allocation compared to issued entitlement is reflected in the capital value of a Lachlan general security license compared to the value of a general security license in another valley.

An important point in the Lachlan valley is **ground water** provides the water security for the irrigation industry, towns and stock water. An important consideration with this project is assessing the risk to ground water recharge with the reduction of uncontrolled flooding over large areas.

Storing extra surface water for drought will be ineffective as much will be lost to evaporation and the plan limit will not allow much of the extra stored water to be used for extended periods. Assuming the added stored water in Wyangala will yield an extra 21GL to General Security per year, a 1000ML license will gain on average 35ML/year (.035 percent) which is a drop in the bucket to a commercial farming operation.

Far better to leave the dam alone and let the current spill events be stored in the downstream aquifers, vegetation and soils. The grazing industry gains a large benefit from current spill events and the environmental benefits from them can not be replicated by WSP environmental flows or any other managed flows.

Adaptive management of the resource in a below average flow period is critical to maintaining access to critical needs in the valley, as was demonstrated in the Lachlan during the millennium drought.

(b) Considering the expected yield of the Wyangala expansion is 21GL per year and the cost of the project \$650 million, the cost per ML is \$31,000. The current price of Lachlan General Security entitlement is ~\$1200 /ML and at 45 percent yield the cost to purchase a ML would be \$2600/ML.

Water users have no idea how much of the expected cost of the project will be passed onto water entitlement holders.

(c) Water NSW have been promoting the EIS for the construction site only, and they have no idea of the major environmental impact this project will have on downstream ecosystems, and have had no plan to do so until external advice suggested they do so.

The Lachlan floodplains and wetlands cover an area of about 400,000 HA and are the largest and most important floodplain and wetland complex in the Murray Darling Basin. While most of the time these areas are rangelands, once or twice a decade they become important nationally listed wetlands maintaining multiple species of flora and fauna. They are renowned for the millions of water birds, particularly colonial water birds, that breed in times of dam spills which provide them the depth, lateral spread, and duration of water to breed. While managed environmental water can create habitat, the magnitude of flow volumes and duration required to stimulate breeding events cannot be replicated by any form of managed water flow events. Not much point creating habitat if there are not any wildlife left to get the benefit.

At a recent local meeting with a representative of the first nations people it was clear they have not been consulted with at all. Their concerns appear to be similar to above points and the general health of the riverine environment.

People have for thousands of years lived along the rivers and wetlands for similar reasons we do today. They provide water, fertile soils, amenity, protection, social meeting places, recreation and a food source. These areas need long dry phases but are highly productive during and after the wet period, providing extensive, productive healthy grazing opportunities providing significant economic returns to the region.

Tourism is a major industry in regional Australia maintaining many jobs and is the life blood of many small regional towns. Local people as well as visitors from the cities are attracted to these wetland areas for relaxation, recreational hunting fishing, and water sports. They all spend money in those small and large regional towns.

In the case of the Lachlan the construction of the existing dam caused environmental harm to the lower reaches of this valley, but there were also benefits in the more reliable water supply, the opportunity for irrigation and the food security and economic benefits of an irrigation industry. However, the lower reaches of the valley are now at a tipping point environmentally, as any further reduction in high flows will be disastrous.

The enlargement of Wyangala for the benefit of the irrigation entitlement holders is a blatant transfer of resource and wealth from one section of our community to another, which should be compensated for regardless of the environmental damage the project will cause. All properties with riparian access have and will maintain higher capital values than those without. Compensation should be for both loss of productive capacity and capital value, which will involve millions of dollars to be fair.

As part of the Murray Darling Basin Plan the State and Commonwealth governments have about \$130 million invested in Lachlan water entitlements for the benefit of the environment. Now they are planning to spend another \$650 million which will do more

harm to the environment, than the environmental benefits from the water entitlements they already own, and make a mockery of the MDB Plan.

As previously stated, the required changes to the Lachlan Water Sharing Plan as a result of the changed storage capacity have not been mentioned.

Numerous migratory birds visit the region during the northern winter and Australia has agreements with Japan Korea and China to protect the habitats of those species.

(d) The modelled inflows to Wyangala dam for the past 100 years clearly display the climatic variability of rainfall in this catchment. From 1900-1950 the average inflows were significantly lower than from 1950-2000. Since 2000 we appear to be back in a dry phase where average rainfall and dam inflows are lower than the previous 50 years. If the current dry phase continues for an extended period, we may end up with long periods of very expensive air space in Wyangala dam, and limited opportunities to fill it.

Some of our district families have lived in the region for many generations and those that have survived and prospered are those that regard climatic variability as an occupational risk and manage it in an adaptive manner. Water management needs to take the same approach.

During the 2000's Lake Brewster a mid- Lachlan Water NSW storage was upgraded to make it more hydraulically efficient. Benefits were a large reduction in evaporation which effectively created water, improvements in water quality, plus the construction of several beneficial wetland components. The enlargement of Wyangala will increase evaporation effectively reducing the amount of water in the catchment over time.

There are many ways to store water. Such as in aquifers, in soil, in vegetation, grain hay and even money in the bank. Storing water above ground in Australia can be very wasteful and inefficient.

(e) There are many water infrastructure technologies that can improve water efficiency to deliver water to a crop, an irrigation district, or wetlands. Some of us in the Lower Lachlan are using our water delivery systems to assist environmental water managers deliver water to various wetlands to create small areas of habitat for the benefit of various flora and fauna.

(f) It never ceases to amaze those of us fortunate enough to witness how the ecosystem can respond to a wet year and a flood event. Where the thousands of birds come from to breed is something nobody really knows, and those events cannot be managed.

Due to the isolation, the geographic extent, the difficulty in access and the fact most of the wetland sites are on privately owned land, the Lachlan river flood plain and wetlands complex is a hidden gem that few people are aware of unfortunately. There is probably a need for a lot more academic research to be done increase our knowledge base of the area.