

## Water hogs leave Darling high and dry downstream

Published in The Australian April 28-29, 2007 Thanks to the drought and too much water being taken upstream, a once great river has been reduced to use as a cricket pitch.

They call it the forgotten river. Drought has reduced the Darling River, that meanders through western NSW, to a chain of stagnant algal-infested ponds lined with ailing river red gums. Its anabranches, billabongs and flood runners are dry. Floodplains have become deserts.

Mark Etheridge runs an organic sheep operation near Wilcannia on the banks of the Darling. It has not flowed since last October. "It is in sad shape," he reflects.

While the national focus has been on the dire state of the Murray River, a recent report found the Darling is equally troubled. "State of the Darling", released by the Murray Darling Basin Commission this month (March) concluded the impact of water use development in the Darling has been substantial "and changes are comparable in scale with those that have occurred on the Murray".

It found average flow into the Darling had been reduced by one third. Extractions from the Darling itself, and evaporation from water held in Menindee Lakes, further reduces flows. "The result is that average outflows (from the Darling) to the Murray are now less than half the volume they would be under natural conditions", the report found.

For a river, the Darling now makes a great cricket pitch.

Several weeks ago locals met on the dry Darling river bed, north of Wilcannia. Under the shade of old river red gums they played cricket: the east side of the river versus the west.

Justin McClure, lives at Kallara Station, which has a Darling River frontage of about 60 kilometres. "It was a magic day." He says it was typical of a community that is able to pull something good out of adversity. "We are a very, very strong little community," McClure says.

Etheridge thinks the river community's stoicism has meant they have accepted too many changes to the river. "There has been a gross transfer of water upstream, which is equivalent to a gross transfer of wealth upstream. It has happened slowly. We are probably guilty of letting it happen and doing not as much about it as we should have."

McClure says the Darling is an event river. But he says the trouble is the flow events that used to come down the river don't make it these days.

Etheridge describes a flow event in 2004 "that should have been a flood. In that flow event the Culgoa Balonne alone took 366 GL of water. Our river came within a metre of the top of the bank." If it his place had flooded, "it would have saved us a lot of money".

Etheridge and McClure are floodplain graziers and their survival is dependent on floods. The deep-rooted perennials of the floodplain thrive for years after a flood, providing good feed.

But now Etheridge says the floodplain "is in diabolical trouble ecologically. A lot of trees, a lot of lignum forest are now dead".

In 2003 aggrieved residents of the western Darling formed the Darling River Action Group. Their secretary, Broken Hill-based geologist Brian Stevens, says water supplies were so low, they were within weeks of having to evacuate Broken Hill. What water they did get was so poor they couldn't drink it. "We were shocked this could happen," Stevens says.

A good fall in January filled local reservoirs and Broken Hill has enough water for the short term. But Stevens, and the other members of DRAG are still worried about the Darling. "There is too much water being pulled out of the Darling River. That is the basic problem," he says.

Stevens blames what he calls "the almost unrestricted expansion of cotton. There has been some restrictions from the 1990s but they haven't been very effective."

The Darling is a highly variable river. Between 1885 and 1960, before large-scale water use, the Darling River stopped flowing at Menindee 48 times. The big wets bring almost incomprehensibly huge floods. In August 1950, 352 giganlitres or billion litres a day rushed past Bourke, enough to supply south east Queensland for 15 months.

Some of the Darling's tributaries - the Border Rivers, the Gwydir, Namoi, Macquarie - are dammed. But the main stem of the Barwon Darling is a so-called unregulated river, and has no dams.

While irrigators elsewhere get their water released from dams, irrigators along the Barwon Darling are licensed to switch

on their pumps when the river reaches a set height, and fill their ring tanks, huge, square privately-constructed on-farm dams.

According to the Murray Darling Basin Commission, in 1960 just 50 GL was diverted from the Darling and its tributaries. By 1990 diversions increased to 1,400 GL. Cotton had come to the north west, and irrigation was going gang busters. The State of the Darling estimates the average annual diversion for irrigation from the rivers of the Darling at 3,072GL.

By 1995 it became clear too much water was being taken from the Murray Darling Basin. The Mouth of the Murray, which under natural conditions experienced severe drought one year in 20, was experiencing drought-like flows six years in ten. Salinity was rising, wetland health declining, there were more frequent blue green algal blooms, and a significant decline in native fish populations.

In 1995 extractions from the Murray Darling Basin were capped at 1993/94 levels.

But Queensland refused to sign up, arguing their development lagged behind the other states. Between 1999 and 2002 the capacity of ring tanks in Queensland grew from 1146GL to 1878 GL. In 1993/4 Queensland diverted 336 GL from the Murray Darling. In 2003/04 it took 804 GL.

Along the Barwon/Darling development was also continuing apace.

The MDBC reported in 2004 "there is some concern about the 42 per cent increase in on-farm storage capacity and 33 per cent increase in area planted that has occurred since 1993/94 in the Barwon Darling River system".

The Barwon Darling breached its cap in 1998/99, 1999/2000, 2003/04 and 2004/05. Its cumulative over-cap take was estimated at 154 GL, more than the residents and businesses of South Australia used in 2004.

In 1995, farm dam storages had a capacity of 173 GL. By 2006 farm dams could hold close to 300 GL.

David Harriss is the executive director, water management with NSW's Department of Natural Resources, the body responsible for managing the Darling River between Mungindi on the NSW/Queensland border, and Menindee Lakes. "It (the Barwon Darling) is our one valley that we report on that is actually in breach of the cap," he acknowledges.

Licences for 524 GL were issued along the Barwon Darling before 1991. A cap of 173 GL, the 1993/4 level of diversions, should be in place next season. "There is a lot of having to go back through records and working out what people's history of extraction has been, to be able to work out what their share of the 173 GL pie is likely to be," Harriss says. "It doesn't matter how much on-farm storage they have got, our cap will still be the same."

McClure is also an irrigator of opportunistic crops. He doesn't have a big dam, rather he plants and irrigates an oilseed or cereal crop when the season is right and the river is high. Under the formula being applied, to bring Darling irrigators under the cap, he looks like losing 67 per cent of the face-value of his licence. Those with a greater history of use, and a greater investment, will lose less.

"Obviously it is over-allocated," McClure says. "There needs to be a clawback and there needs to be full compensation. And there needs to be equity throughout the system from the environment up."

Last year the Murray had the lowest inflows on record. There are not equivalent figures for the Darling, but Harriss thinks on the Darling it has been as severe as the Federation drought.

Harriss argues that the system along the Barwon Darling, where irrigators can only pump when the river reaches a set threshold, is self-regulating. "In the Darling, if you are having a reduced number of freshes (flows), that is less access," he says.

The Darling basin is twice the size of the Murray, but the basin is far more arid, with 99.7 per cent of its water coming from the tributaries. The rain that falls up in central Queensland, or on the western fall of the Great Dividing Range, can take three months to travel 1700 kilometres through slow flat landscape of the Darling. On the way, about 25 per cent of the water just evaporates. An annual flow of 3720 GL at Bourke, under natural conditions, is down to 2898 GL when it reaches Menindee. By the time it gets to Wentworth, and joins the Murray, just 2182 GL is left.

McClure wants equity. He says there is up to 10,000 ML stored up the river, but Darling River towns like Louth, Tilpa and Wilcannia have undrinkable water, or no water at all. "I have cousins 60 km down the river, and they are carting rainwater. They just haven't got any water and their nearest town is 100 km away."

Etheridge points out he makes good use of the water he gets. "Because I water my stock, I am making about \$60,000/ML consumed. Cotton is at about \$400. So we are very efficient users of water." The Australian Bureau of Statistics estimates cotton earns \$420/ML.

Stevens welcomes the Prime Minister's plan for the Murray River, but argues "there has to just as much emphasis on the Darling, the Darling has been the forgotten river."

His group wants environmental flows, water dedicated to the health of the river, given a far higher priority. "We would like to see the wetlands wet, we would like to the floodplains have the occasional flood that they are supposed to have. We would like to see the billabongs fill up now and again."

While welcoming the PM's \$6 billion to fund water savings, one thing DRAG does not want is half of the savings to go back to irrigators along the Darling. "It has to go back into the rivers, and if they get the rivers flowing well enough, then they can talk about giving the irrigators some of what is left over," Stevens says. "It is in everyone's interest to have the rivers sustainable."

## Facts

### Darling River

Average mid-river flow under natural conditions: 7,438

Evaporation 2,000 GL pa

Average extraction for irrigation 3,072

Average inflow into the Murray River, from the Darling, under natural conditions: 2182 GL

Average inflows into the Murray River, from the Darling, under current conditions: 963 GL

Reduction in flows, due to extraction

Border rivers 33%

Gwydir River 60%

Namoi River 18%

Macquarie Bogan River 29%

Condamine Balonne river 53%

Total reduction in inflows to the Darling 34%

Reduction in flow from Darling to Murray 56%

Drought and flood

The long term flow at Wilcannia is 2090 GL per year.

In 1902 the river did not flow at all for 362 days.

In 2005/2006 the flow was 217 GL.

In 1956 the flow at Wilcannia was 28,800 GL.

Sources:

The state of the Darling report

NSW Dept of Natural resources

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