

## Queensland has little impact on Murray River flows

How much does the river system in Queensland contribute to the Murray River. Very little! One of the convenient mistruths of the Murray river water story is that Queensland uses too much water, leaving South Australia short.

Overall, Queensland water use has very little impact on the Murray River system. Average use of surface water in Queensland over 8 years to 2004, according to the Murray-Darling Basin Commission, is 544,000 megalitres per year.

This is 18% of the river flow in Queensland and compares with 6,255,000 megalitres used in New South Wales, which is 52% of river flows.

But very little of the water in the Murray-Darling river system in Queensland reaches the NSW border, let alone the Murray river. It soaks up into dry river beds and spreads out across the plains during flood events.

Less than one quarter of the water flow in the Condamine-Balonne river system in Queensland reaches the Queensland Border. During floods it spreads out from the river system losing most of its water, especially on the plains below St George. Of the water that does reach New South Wales, the best estimates are that less than one third of it will reach the end of Darling River and flow into the Murray River.

Some of the water estimated to be used for irrigation is harvested from overland flows, of which only half might get to the river. Some water is harvested once it has spilled back out of the river system in floods. An overall estimate is that half of the 500,000 megalitres used for irrigation would not contribute to river flows.

If the entire irrigation industry in the Queensland Murray-Darling Basin was stopped, the river flow where the Darling reaches the Murray would increase by around 24,000 megalitres a year.

A boost to the river flow in South Australia by the same amount of water could be achieved by buying and decommissioning two rice farms on the Murray river. The Queensland irrigation industry employs around 20,000 people and was worth \$600 million a year, in the days when it used to rain. Two rice farms using 24,000 megalitres would produce around \$4 million in gross production a year.

Why does so little water get to the Murray River from Queensland? It is because the rivers are ephemeral. Most of the time they are dry and it takes an enormous amount of water to make them run. Most of the water flow occurs in flood events and the second way in which water is lost is when it overtops the river banks and spreads out on floodplains.

The Murray Darling has to run for over 2500 kilometres with a height loss of only 400 metres. Below St George, the height above sea level is less than 300 metres and the land is so flat that the Balonne River splits into five small streams. These small streams can only transport a small amount of water and when floods come down the river, much of the water spreads out across the floodplain. Around one quarter of the water flows down the Narran River into a wetland system, and the water does not reach the Darling River.

Cubbie Station at Dirrinbandi harvests some of its water from the river system, and some from water that has already left the river system. But the location of Cubbie Station is where the water starts to spread out on the floodplains and much of the water which is harvested would not stay in the river channels and reach the Darling River. Cubbie Station is below the junction of where the Narran river leaves the Balonne and does not have any impact on water flows into the Narran lakes.

If the government were to buy Cubbie Station or other large irrigation properties on the lower Balonne floodplain, it would result in less water being harvested for irrigation every two or three years when there is a decent flow in the river. But most of this water would not have stayed in the river system and the final impact of water harvesting in this location is to reduce water reaching the Murray river by less than 20,000 megalitres on an annual basis.

Water harvesting will reduce pasture production on the floodplains, but the economic comparison is that harvested water can produce \$400 of cotton per megalitre, where as increased grass growth for sheep would produce less than \$1 per megalitre.

Further west, water flowing down the Warrego river rarely reaches the Murray-Darling. The annual flow near Charleville is more than 300,000 megalitres, but the average amount reaching the Darling River is less than 500 megalitres. Below Cunnamulla, the river spreads out into a myriad of flood channels, and only in a prolonged wet season does the water flow ever reach the Queensland Border. Very little water is used for irrigation on the Warrego.

Whilst there are some impacts from using water for irrigation, they are much less than is commonly thought. In particular we do not need to feel guilty that our use of water in Queensland is leaving people in South Australia short.