

## Speak Up Campaign Inc.

Inc 1800187

[speakup4water@gmail.com](mailto:speakup4water@gmail.com)



### CEO Murray Darling Basin Authority

Phillip Glyde

[Phillip.Glyde@mdba.gov.au](mailto:Phillip.Glyde@mdba.gov.au)

May 31, 2020

Dear Mr Glyde,

On behalf of our members and other supporters of the Speak Up Campaign we were hoping that you and your team might be able to clarify a few points, as there are issues around the Lower Lakes which do not appear to make sense.

We have conducted research on examples of estuaries around the world to find examples of other freshwater systems similar to the Lower Lakes, but we have struggled to find anything similar.

The most obvious example is the estuary created at the mouth of the Amazon river, which has the greatest discharge by a long way compared to any other river in the world. The Amazon has two flood seasons a year, and at times freshwater can be detected 160km offshore. The Amazon discharges 209 gigalitres a second, or 18,000 gigalitres a day of water and 1.3 millions tonnes of sediment.

Each month the Amazon discharges to equivalent of the Murray Darling Basin's entire rainfall, and while the Murray is the 15<sup>th</sup> longest river in the world, from my research it is not represented in the top 150 rivers in the world for volume of water discharged, many of this top 150 have at least brackish water estuaries at the bottom end.

Obviously the sheer volume of water flowing down the Amazon is enough to keep any sort of river mouth from silting over and creating a lake, so I have done some research on other freshwater lakes which are connected to a sea or ocean. I came across the Great Lakes in Northern America and Canada, but then this can't really compare to the Lower Lakes either, as the Great Lakes are supplied by numerous rivers, which feature in the top 100 rivers in the world by volume. These rivers have much greater volumes than the Murray.

The Great Lakes are connected to the Atlantic Ocean by St Lawrence river, which takes surplus water from the lakes to the ocean. So again, can't really compare to the Lower Lakes.

From our research even the Mega Deltas in Asia experience tidal influence and exchange between fresh and salt, can you please explain to us how the Murray River, which has a relatively small discharge on the world stage for volumes discharged, was ever able to counteract the huge power of the Southern Ocean to keep the Murray Mouth open 95% of the time?

## Speak Up Campaign Inc.

Inc 1800187

[speakup4water@gmail.com](mailto:speakup4water@gmail.com)



Figures on the volumes needed to keep the Murray Mouth open would be greatly appreciated, as it seems impossible that the Murray and the Darling's flows were historically high enough 95% of the time to force so much water out of the lakes to keep the Lower Lakes fresh and the mouth open and clear of silt.

We will be publishing this letter on our website, as we want to be transparent. We hope to hear from you soon as we would like a reply which can also be published.

Sincere Thanks,

Shelley Scoullar  
Speak Up Campaign Chair  
0414 960 785