

## Submission to the Senate inquiry - The Impact of Mining on the Murray Darling Basin.

Dear Senate Standing Committee on Environment, Communications and the Arts

Background;

I have a bachelor of Agricultural Economics and have worked as both an agronomist and an agricultural commodity (grain) marketing advisor. I have lived on properties in both the Murrumbidgee catchment and currently the upper Mooki part of the Namoi catchment, both these catchments are part of the greater Murray Darling basin.

I am greatly concerned exploration licenses for both coal and coal seam gas have been granted on the Liverpool Plains and Darling Downs both which produce large quantities of high quality agricultural produce. To date little study has been undertaken into the impact mining of both coal and coal seam gas will have on surficial and groundwater flows and the impact these activities will have on the current condition of soils.

My other concern is the volumes of water required by both coal mines and coal seam gas extraction. These high demands of water are likely to impact on the availability of water for both agricultural pursuits and the environment. Part of the reason agriculture is so successful in the Liverpool Plains is due to the high volumes of water available in the underground aquifers.

Polluted water resulting from mining activities could contaminate existing water. Recent activity by the coal mine located near Werris Creek, Liverpool Plains has seen contaminated water leaked already, while a collapsed salt water pond required for coal seam gas extraction in the Pilliga state forest has caused destruction.

It is my belief that there is a link between the creek flows and the ground water systems on the Liverpool Plains. The property that I have residence on has been in the family for 97 years. This property lies within Santos's approved area for coal seam gas exploration. It has been noted both wells and bores volumes depreciate when irrigation sprays are used lower down in the catchment. These volumes of water are superficial in comparison to the requirements I expect either coal mines or coal seam gas extraction will require.

Currently the farming operation that I am involved in has received grants, one being an Envirofund to protect the riparian area surrounding Warrah Creek and to support White box woodlands on the ridges. I believe this should be taken into consideration as the government appears to cherish this area, as demonstrated by the funding, however if mining goes ahead irreversible damage will be done. Incidents in the US indicate that coal seam gas mining can result in long term subsidence and scolding not to mention possible contamination and depletion of water.

Both the Liverpool plains and Darling Downs farm on vertosol soils, which are both highly fertile and have a great capacity to hold moisture, which in these times of increasing drought is paramount to agricultural production and reliability for food security for Australians, particularly as the world's population continues to increase.

Grain production from the Liverpool plains is 40% higher than the national average. Grain production volumes decreasing in southern eastern areas of Australia due to lasting droughts and climate change forecasts emphasis how important it is to preserve both the Liverpool Plains and Darling Downs agricultural capacity.

Increasing mining activities within the Murray Darling basin will reduce water quality and availability flowing from both the Darling Downs and Liverpool Plains. Agriculture production within the Darling Downs and Liverpool Plains will be negatively impacted upon if further mining developments occur. It is for us to make the right decision now to protect our children's future.

Regards  
Bridget Gallagher