

## **To Whom It May Concern**

Please find attached the following documents:

1. An Executive Summary, which explains my very grave concerns for the integrity of the Murray-Darling Basin with regard to Coal Seam Gas Projects. This relates, in particular, to the contaminants that are being "legally" discharged into the Murray-Darling Basin via treated Coal Seam Gas Produced Water. The water treatment processes basically only remove the salts - leaving the dozens of hydrocarbons, heavy metals and radionuclides in the waste water effluent that is being introduced into the Murray-Darling Basin system. (It is a simple fact of chemistry that whatever is smaller than an H<sub>2</sub>O molecule will pass through the reverse osmosis membrane, meaning that the contaminant/s remain in the water.)
2. A copy of relevant pages from the QLD Government DERM PEN 100067807 (the Walloons Gas Fields Petroleum Exploration Project), which state the point of discharge into the Condamine River, as well as a list of contaminants and discharge amounts over an 18-month period, based on a 20 megalitre per day discharge rate.
3. A copy of the spreadsheet, which analyses this data from the DERM PEN 100067807. This shows the total amount (in kilograms) of each substance, that will be discharged into the Condamine River, over an 18-month period. It also shows which contaminants are at or exceeding limits, according to the WHO Safe Drinking Water Guidelines, US EPA Safe Drinking Water Guidelines and also Australian Safe Drinking Water Guidelines. Unfortunately there was no available data for many of the contaminants. It is relevant to note the total amount in this case of these contaminants, many of which are known carcinogens, endocrine disrupters and neurotoxins.

I am a teacher who is very concerned about the ramifications of this on Public Health, Purity, Integrity & Security of Water Supplies and also Purity, Integrity & Security of Food Supplies. These are critical issues for the future sustainability of our country. I recently worked on a project on the MDB with one of my classes, who learnt to appreciate the interconnectivity of the whole system.

I am happy for this information to be made public, but would prefer to keep my personal details private.

You will note that I have sought advice and feedback from a wide range of people on the details of this submission, to an attempt to ensure the accuracy and integrity of this information, given that this is not my area of expertise.

Yours sincerely,

Ms Kim Hann