

Reply c/o Anne Kennedy
P.O. Box 131
Coonamble
NSW 2829

Open Letter to Environment Minister Greg Hunt

Re: The impacts of coal mining and gas extraction on water resources

October 2013

Dear Minister,

We are writing to congratulate you on your decision to apply the new 'water trigger' under the *Environment Protection Biodiversity Conservation Act* to 47 coal mine and coal seam gas proposals, and to urge you to ensure that the impacts of these projects are thoroughly assessed and that they do not proceed if unacceptable impacts on water resources are found to be a likely result from these projects.

Open cut coal mining has an impact on water resources by diverting creeks and rivers, by cutting into aquifers, and removing water from them. Final voids left open after mining ceases draw groundwater from the surrounding area, lowers water tables and introduces contaminants such as heavy metals and highly saline waters to surface environments. Underground coal mining has an impact on water resources by mining directly in aquifers, and by fracturing the rock formations that contain aquifers and river beds. Coal seam gas extraction has an impact on water resources by depressurising aquifers, contaminating groundwater directly and indirectly by introducing connections between aquifers in order to remove gas from the coal seam. The process can involve the use of carcinogenic chemicals, which can then migrate into adjacent and shallow groundwater aquifers.

Your decision to apply the water trigger to 47 new coal mine and gas projects is welcome, but the test of the Government's commitment to protecting the lifeblood of regional and metropolitan communities is the adequacy of assessment and the courage to reject any proposals that would have unacceptable impacts. As experts in water science, management and advocacy, we urge you to consider the following urgent recommendations:

- That a cumulative impact assessment of the impact on water resources of coal mines proposed for the Galilee Basin is undertaken, and that no further mining approvals be granted in that region until assessment is complete.
- That cumulative impact assessment are also undertaken for other regions where many large coal mining and CSG projects are proposed, including the Liverpool Plains and the Surat Basin.
- That the Commonwealth undertake a Great Artesian Basin planning and management process, and that assessment of any coal mine or gas extraction projects that would impact on GAB water and GAB recharge be suspended until that process is complete.

- For the coal mines and gas projects that have the water trigger applied, that assessment and decision-making for each of these projects ensures the protection of local and regional aquifers and surface water catchment areas that supply drinking water for population centres, irrigation water for agricultural industries as well as water to high value water dependent ecosystems, including groundwater dependent ecosystems.

Water is our most precious resource: it is our lifeblood. The damage to aquifers, rivers and catchments that coal mining and coal seam gas extraction can create calls for precautionary decision making and a readiness to say “no” to major mining projects if it is found that they will have unacceptable impacts on this irreplaceable resource.

Thank you for your attention and diligence to this matter.

Sincerely

Dr Matthew Currell
Lecturer, Hydrogeology & Environmental
Engineering
RMIT University

Ass Prof John Webb
Environmental Geoscience, Department of
Agricultural Sciences
La Trobe University

Peter Serov
Aquatic/Groundwater Ecologist
Director, Stygoecologia

Anne Kennedy
President
NSW Artesian Bore Water Users Association

Dr. Kerri Muller
Applied Ecologist
Principal, Kerri Muller NRM

Andrea Broughton
Principal Hydrogeologist
Groundwater Solutions International

Pip Rasenberg
Parrakie Wetlands Pty Ltd

Robert Banks
Principal Soil Scientist
SoilFutures Consulting Pty Ltd

Roger Clarke
Retired former hydrologist
Queensland Department of Natural Resources
and Mines

Sharon Khan
International Director
Waterkeeper Alliance

Tom Crothers
Director, Stellar Advisory Services
Former GM Water Allocation and Planning
Group, Qld DERM

John Polglase
Geochemist
Divstrat Pty Ltd

Dr Gavin Mudd
Senior Lecturer Environmental Engineering
Monash University