

CSG and Drinking Water do not Mix!

Coal seam gas (CSG) exploration and extraction poses unacceptable risks to drinking water catchments and water security, yet exploration licences have been issued and development consent for CSG wells approved in vital drinking water catchments in NSW. This includes the approval of wells in SCA Special Areas, buffer zones established to protect drinking water quality – unauthorised or illegal access to these areas attracts fines of up to \$44,000.

There are five drinking water catchments managed and protected by the Sydney Catchment Authority (SCA) – Warragamba, Woronora, Upper Nepean, Blue Mountains and Shoalhaven. These cover less than 2% of the land in NSW and supply drinking water to 60% of the state's population. All the five drinking water catchments are covered or encroached on by current CSG exploration licences, renewed as recently as March 2013.

Water Catchments in the Blue Mountains

The Upper Blue Mountains get its drinking water from the 3 reservoirs – Cascade Dams – at Katoomba which are supplemented by the Fish River, the Lower Blue Mountains up to Springwood receives its drinking water from Warragamba Dam via Prospect Reservoir.

Also, Sydney's general water supply catchment area includes Lithgow and surrounds, Coxs River and the Blue Mountains National Park – any activity, such as CSG extraction, that leaches undesirable substances into the catchment will end up in the water supply.

CSG Activity in the Catchments

A well has been drilled in the Warragamba catchment and the Department of Planning and Infrastructure has recommended approval for Apex Energy to proceed with a 16 CSG well project in and around the Woronora and Upper Nepean catchments.

The approvals are not simply a legacy of the previous Government. New wells have been approved and drilled in SCA Special Areas since O'Farrell took office.

The current NSW Government said its Strategic Regional Land Use Policy would protect water but the policy (released in September 2012) failed to ban CSG development in drinking water catchments. In fact, the Government did not even classify drinking water catchments as land of strategic importance, and impacts on aquifers became "information to be considered" in the approval process.

In December 2012 the NSW Minister for Primary Industries replaced the entire Board of the SCA. The new chairperson is a former director of two of Australia's largest mining companies, and for the first time in its history there is no public health expert on the SCA Board.

What are the Risks

CSG development requires land clearing. CSG fields have a big industrial footprint. This requires clearing and degradation of large areas of land. But plants along rivers and streams, native vegetation and wetlands are vital to catchment health.

CSG wells degrade over time. About 50% leak during operation. When a CSG project ends, the wells – built and plugged with materials that degrade – must last forever.

CSG extraction unearths contaminated water that is high in salt and methane, and can contain toxic and radioactive compounds and heavy metals. Desalinated CSG waste water released into the Condamine River contained boron, silver, chlorine, copper, cadmium cyanide, zinc and other toxic chemicals. Some of these compounds can produce short-term health effects and some may contribute to systemic illness and/or cancer many years later.

CSG mining depletes groundwater. Drawing water out of the ground depletes aquifers and surface water, critical sources of drinking water.

CSG poses fire risks, which threaten water quality. CSG is usually methane, a highly explosive and flammable gas. This can leak from pipelines, wells, waste water and processing plants.

David Packer and Tony Young

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