



Marland Law
AGRIBUSINESS & ADVISORY

31 January 2018

PRESS RELEASE

State Government removed ECZ but same cautions apply

The Department of Environment and Science (**Department**) has announced that it has removed the excavation caution zone (**ECZ**) over 77,000 hectares of agricultural land in the Hopeland and Kogan districts south of Chinchilla.

Marland Law is investigating a potential class action against the Chief Executive of the Department in relation to the contamination the Department allowed to occur at the Linc Energy site from underground coal gasification (**UCG**) activities which has potentially contaminated over 77,000 hectares of land in the Hopeland and Kogan communities.

Tom Marland, principal of Marland Law, who represents landholders already affected by the ECZ at Hopelands and Kogan has said that the most recent announcement just adds to the confusion and uncertainty of affected landholders.

“In 2015, without any public consultation the Department lodged the initial ECZ which affected 35,000 hectares in the Hopeland area. In February 2017, they extended it by a further 42,000 hectares in the Kogan area without any public announcement. Now with the wave of the Department’s magic wand, the whole area has been removed BUT the same excavation cautions apply. The testing undertaken by the Department has been completely inadequate, sporadic and inconsistent. For example, the so described “farm health assessments” have only tested soil samples to a depth of 30 centimetres when the Department’s earlier testing showed contamination migrations occurring at 2 to 8 metres.” Mr Marland said.

At the Linc site at Hopeland during the periods from December 1999 to April 2003 and September 2007 to November 2013 the Department allowed Linc to burn coal seams at shallow depths of about 120 metres over a period of more than seven years without any proper regulatory supervision by the Department.

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In reports prepared for the Department in April 2014 and June 2015 by scientists Gilbert and Sutherland the extent of the landform and groundwater contamination caused by Linc's UCG was variously described as:-

April 2014 Report:-

"[I]t is **impossible to estimate the extent of the damage** because of an ineffectual and inadequate response to the incidents, the assessment of contaminant transport coupled with the inadequate environmental monitoring."

June 2015 Report:-

"The principal contaminant indicator gases are evident in properties surrounding [the Linc] site. Linc's own monitoring and documentation demonstrated that gas excursions from its UCG process were likely to be occurring off-site. **The full extent of the spread and concentration of the indicator gases, has, as yet, not been confirmed.** However, it is **known** to be widespread (>20 to 310 km²)

The degree of contamination is widespread, of high impact, and in part, irreversible (>20 to 310 km²)."

The contamination was *caused* by the release of the following contaminants into the environment:

- "Gases in the form of syngas and its component gases and by-products.
- Gas, in the form of an additional contaminant (biogenic methane) formed as a result of a succession of contaminating events.
- Liquids, **in the form of contaminated ground waters**
- **Solids, in the form of tars and other petroleum products**
- **A combination of contaminants in the form of gas-liquid mixtures available for further contamination**"

As to the damage to the prime farming land within the ECZ at Hopeland, Gilbert and Sutherland described the damage as:

- "Forcing contaminations off site, through the overburden and into the soil profile, as evidence by indicator gases such as hydrogen and methane and soil acidification."
- Preliminary results from the soil analysis indicates acidification within the root zone where the normally alkaline Vertosols have acidified to a degree that renders these soils unsuitable to be classed as Strategic Cropping Land"

As to the potential adverse effects on the lands within the ECZ, Gilbert and Sutherland stated those adverse effects have been caused by:

- "Releasing contaminants to the overburden and the soil profile **where they are now trapped and risk release during normal land use including agricultural operations.**
- Placing contaminants within the overburden that has and will continue to facilitate the formation of a new contaminant (biogenic methane) as a result of a succession of contaminating events ready for future liberation and causing further changes to the soil atmosphere.
- Placing contaminants within the overburden where they will be re-entrained overtime as the groundwater level re-establishes potentially exposing the landholders to these contaminants over time and potentially impacting soil and ecological health and land use."

Mr Marland stated: - "Our technical expert advice which is consistent with that of Gilbert and Sutherland, is that there can be no "quick fix" to the problems caused by the UCG contamination. Our advice is that the testing undertaken by the department or its consultants to date cannot possibly have identified the *extent* of potential contamination in the landform and the groundwater system and we are concerned to receive all the testing results on which the Department relied to make this most recent decision. We have spoken to several landholders with test sites that were installed on their land in 2015 that haven't seen the Department since".

In respect of the long-term nature of the contamination caused by UCG Mr Marland stated: "As examples from overseas have shown, when coal seams are burnt at shallow depths as they were for very long periods at the Linc site, the time frame over which contamination of the groundwater and surrounding landform and subsidence can continue to emerge extends over not just a number of years but many decades into the future. The experiments at Hoe Creek Underground Coal Gasification Test site in Campbell County Wyoming in the United States conducted by the USA Department of Energy at 3 locations during the period between 1976 and 1979 which were the subject of a published report by the USA Department of Energy in 1997 provide a dire example of the long-term nature and serious consequences of the contamination caused by the UCG activities. The results of the contamination that occurred at Hoe Creek - which included extensive subsidence caused by the continuous burning of the underground coal seams - emerged some 15 years after the coal seams had initially been lit and apparently decommissioned. The number of tonnes of coal burnt in the Hoe Creek experiments was a "drop in the ocean" when compared to the very large volumes of coal the Department allowed to Linc to burn underground over a total period of more than 7 years."

Mr Marland went on to say: - "The contaminants that were released at the Linc site are called volatile organic compounds (VOCs). The VOCs have been allowed to escape from the burning coal seam cavities into the surrounding strata and groundwater at the Linc site over a period of more than 7 years. In respect of any contamination of the groundwater systems, our expert advice is that once the "genie is out of the bottle," that it is not possible to restore the groundwater to its pre-contamination state because each time it rains the underground aquifer is being replenished. The rainwater percolates through the soil profile and landform down to the aquifer and during that process the rainwater collects and carries any dormant volatile organic compounds that are present in the soil."

Mr Marland said that given the widespread extent of the UCG contamination and its long-term nature, that landholders are entitled to be very concerned. "Given the Department's lack of transparency, its secrecy and mishandling of the entire matter to date, it is impossible to rely on the accuracy of any statement by the Department. The people of Hopeland and Kogan are also entitled to be extremely sceptical about the most recent announcement by the Department" said Mr Marland.

He said that the recent announcement by the Department to remove the ECZ designation will not affect the progress of the class action. He said that the Department well knew of the pending class action and that a preliminary conference had been held with legal representatives of the Department and Marland Law and barristers Charles Wilson and Grant Allan in December 2017.

“Until we obtain conclusive evidence from the Department that lands contained in the ECZ are not contaminated, we will continue to progress our proposed class action against the State Government. Given that the ECZ has been lifted but the same “cautionary advice” applies to affected lands, this may give you some insight that contrary to their actions in removing the ECZs the Department does not have the problem under control” said Mr Marland. “Until we have definitive evidence, landholders in the affected areas remain in limbo.”

ENDS

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