## **Drilling Waste Issues Just The Beginning**

By Catherine Cheung, published in Northland Age, 4 July 2013

Despite Taranaki Regional Council's championing of "landfarming"—the spreading of drilling wastes on farm land—Fonterra has now announced it will not accept milk from new landfarms. Fonterra's decision shows the crucial role big business can have in ensuring the right thing is done for people and environment.

This has important implications across the nation, especially in regions where oil and gas exploration is in its infancy, and where companies intend trucking drilling wastes to Taranaki for disposal.

Yet landfarms are not the only places where toxic wastes may be converted to grazing pasture. By 2010, TRC had issued over 50 consents for Mix-Bury-Cover operations. These allow solid drilling waste to be mixed with soil and buried in wellsite sumps or pits, which are then reinstated into pasture. Some of these consents last for 17 years.

Moreover, there are numerous other sites with consents for drilling wastes to be discharged to land, water and air. Most of these sites are on, or next to, dairy farms.

Let's not forget fracking (hydraulic fracturing)—the process whereby water (or diesel in the past), sand and chemicals are injected at high pressure into wells, fracturing rocks to release trapped oil and gas. Much of the fracking fluid returns to the surface as contaminated waste.

Some 70 "fracturing products" (e.g. Halliburton SSO-21) are involved, many containing hazardous, carcinogenic chemicals. Some products have undisclosed constituents—proprietary 'trade secrets'.

Last year, TRC reported that from 1989 to mid-2011, 39 wells were fracked 65 times, all without resource consents. Since July 2011, TRC has issued non-notified resource consents, allowing another 22 fracking jobs to occur, without public scrutiny. No doubt, many more are in the pipeline, with 140 new wells projected and many old wells to be redrilled. The billion dollar question is where, when and how all the associated wastes have been, or will be, disposed of?

A hint may lie in a recent modelling study commissioned by TRC, which looked at the dispersion of pollutants from the flaring of fracking fluids. Notably, two years earlier, TRC had already allowed temporary flaring involving fracking, at Kapuni and Turangi. And in Feb 2012, TRC issued a consent for combustion of returned fracking fluids at Kowhai-B wellsite in Tikorangi. The site is just 100 metres from a home and 320 metres from the nearest neighbour.

Material safety data sheets of many fracking chemicals state clearly that they are hazardous, carcinogenic, and when heated, may release toxic gases. Overseas, there are many health cases of people and animals living close to gas wells.

Yet the modelling study concluded that there would be no adverse effects beyond the well site, despite admitted limitations, assumptions, discrepancies and inaccuracies in the methods used. TRC recommended the report be distributed to oil and gas companies, for reference in support of air discharge permit applications.

Another way of disposing drilling and fracking waste is to inject deep underground. This has caused earth tremors elsewhere. As of March 2013, TRC had issued 22 consents for deepwell injection. Some of these so-called "deepwells" are not that deep. Todd's McKee-4 well is perforated between 798-970 metres depth.

Alarmingly, not all operators comply with consent conditions. In April 2013, TRC issued two abatement notices regarding Cheal Petroleum's deepwell injection programme. The company had failed to submit complete injection records or follow consent conditions for nearly a year!

Nevertheless, in early June, just two months later, TRC granted new consents for it to discharge contaminants to air, land and water.

Is this a rigorous regulatory regime? Should we pollute our air, soil and water with toxic wastes?