

# Risk Management Cases: Drilling for Shale Gas: Hydraulic Fracturing (“Fracking”)

William Leiss, 20 July 2010

The environmental risks associated with drilling for shale gas, and the extraction process known as “hydraulic fracturing” [“fracking”], are receiving a good deal of attention in Canada, the United States, and elsewhere.

The state of New York has had a moratorium on shale gas development for the past year, but Governor Mario Cuomo has recommended that it be lifted in favour of permitting activity in selected areas. The Province of Quebec now has a two-year moratorium in place and has indicated that further research will be required before it is known whether the environmental risks can be limited to acceptable levels.

Readers who are interested in this issue, especially those who live in or near areas where underground shale deposits may attract this activity, will be interested in the following current resources.

## 1. Scientific Article:

“Methane contamination of drinking water accompanying gas-well drilling and hydraulic fracturing,” *Proceedings of the National Academy of Sciences* (May 2011): open access PDF file available at: <http://bit.ly/mW2QZO>

## 2. Report by Quebec Ministry of the Environment:

“Développement durable de l’industrie des gaz de schiste au Québec” (complete report, 323 pp., February 2011, PDF file): <http://bit.ly/rkP6dl>

English translation of excerpts: “Sustainable Development of the Shale Gas Industry in Québec (PDF file)”: <http://bit.ly/psW3cm>

## 3. New York State report:

New York State, Department of Environmental Conservation, “Horizontal Drilling and High-Volume Hydraulic Fracturing in the Marcellus Shale and Other Low-Permeability Gas Reservoirs,” Preliminary Revised Draft environmental impact statement (July 2011):

<http://www.dec.ny.gov/energy/75370.html> [full report available in a 29MB-PDF file, can be downloaded also chapter-by-chapter]

4. Environmental group:

Natural Resources Defense Council [<http://www.nrdc.org/>], search under “shale gas” <http://bit.ly/q7DzyV> and “hydraulic fracking” <http://bit.ly/nmQuVa>

5. Newspaper coverage of issue:

*The New York Times*, search under “hydraulic fracking” and “shale gas”

6. Wikipedia:

Hydraulic fracturing: [http://en.wikipedia.org/wiki/Hydraulic\\_fracturing](http://en.wikipedia.org/wiki/Hydraulic_fracturing)

7. National Ground Water Association brief:

The National Ground Water Association’s brief on “Water Wells in Proximity to Natural Gas or Oil Development” is aimed at well owners. It’s well written, in plain language, and provides sound practical information and advice that can be quite useful for well owners living in areas of oil and gas exploration, including shale gas. It can help well owners living in areas where exploration is planned (i.e. list of things to do before exploration has started). The document is available at:

[http://www.ngwa.org/Documents/Water\\_Wells\\_in\\_proximity\\_info\\_brief\\_2011.FINAL.pdf](http://www.ngwa.org/Documents/Water_Wells_in_proximity_info_brief_2011.FINAL.pdf)

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