



# A Fractivist's Toolkit

How you can take action to protect water and stop fracking



ACTING FOR SOCIAL JUSTICE / AGIR POUR LA JUSTICE SOCIALE

[www.canadians.org/fracking](http://www.canadians.org/fracking)



Photo by Wolfgang Schmidt

My fellow fractivists,

Fracking threatens our communities, our health and our water. We've seen the terrible damage fracking inflicts, just as we've seen the power and influence of the companies that promote it. These companies won't regulate themselves, and governments are doing little to stop them. They won't adopt a precautionary principle. They won't put the needs of people and the planet before profit.

That's up to us. By organizing, writing, marching, petitioning and refusing to give up, we can protect our water and stop fracking. Thank you for taking up this fight.

With hope and resolve,

## THANK YOU!

We would like to extend a special thank you to the following people for their thoughtful contributions and for sharing their invaluable materials and knowledge.

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### Cover Images

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## PURPOSE AND OVERVIEW

The purpose of this toolkit is to help people and communities fight fracking, protect water and public health, and curb climate change. It was inspired in response to the inquiries the Council of Canadians receives from people who have just heard that fracking is happening in their community and don't know what to do about it.

The first section of the toolkit provides a summary of fracking in Canada's provinces and territories and includes information about the current state of fracking, laws related to fracking – such as permit requirements

for water takings and drilling – and what community actions are already underway. The second section contains ideas and suggestions about what you can do to fight fracking, including case studies and how to pass a resolution against fracking. This section also includes public education tools such as social media tips and sample letters to the editor.

This toolkit provides a good starting point for people who are facing fracking projects in their community or want to help other affected communities.

### **Help us keep the Fractivist Toolkit up-to-date!**

Please note that while efforts have been made to include the latest information, the status of fracking is constantly changing. If you have more current or detailed information to offer, please e-mail us at [webmaster@canadians.org](mailto:webmaster@canadians.org).



# What is fracking?

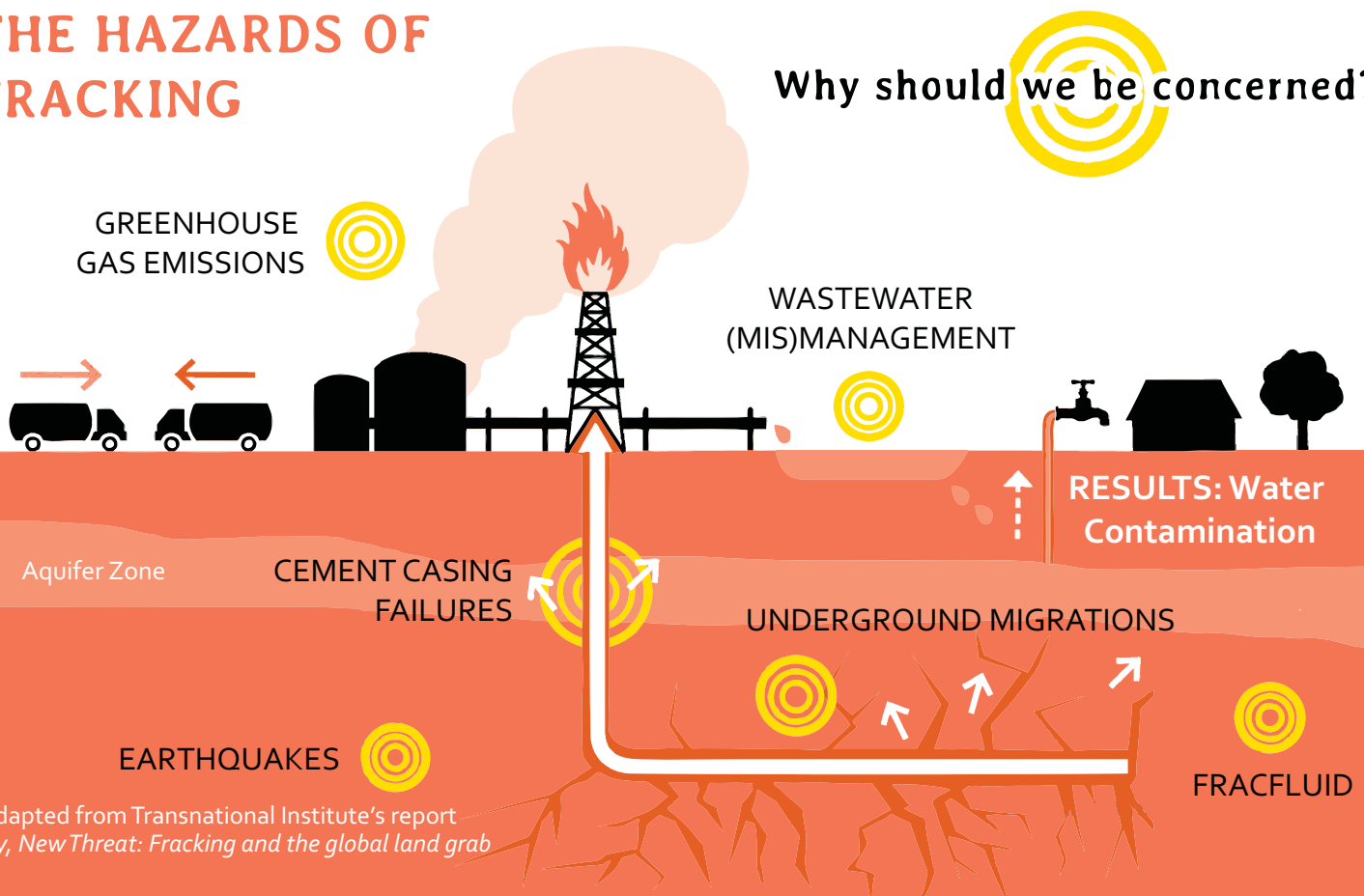
Hydraulic fracturing, commonly known as “fracking,” is a process used to extract natural gas or oil from shale rock and coal beds. Fracking uses millions of litres of water, thousands of litres of chemicals, and thousands of kilograms of sand to blast apart rock formations in order to capture natural gas or oil trapped in shale formations or coal beds.

Fracking is spreading across the country at an alarming rate. Industry representatives and some governments are promoting fracking as a solution to our energy needs. The false promises of new jobs, low natural gas prices, energy security and energy self-sustainability are all part of the industry spin being put forward to push fracking projects.

Governments and industry representatives often say that fracking has been used as an extraction method for more than 60 years. However, the “older” type of fracking – known as vertical fracking or fracking for conventional gas – is different than the new form of fracking that involves multi-stage, high pressure, horizontal fracking. This new form of fracking has just developed over the last decade and uses more water and chemicals than the older version. This toolkit focuses primarily on the new horizontal form of fracking.

## THE HAZARDS OF FRACKING

Why should we be concerned?



## Communities stand together to fight fracking

Communities are taking action against fracking in order to protect water and slow down climate change. Farmers, teachers, environmental, youth and water activists, Indigenous leaders and local residents are working together to assert their right to say “no” to fracking.

Efforts to stop fracking are happening across Canada. Municipalities such as Burnaby, B.C. and Niagara-on-the-Lake, Ontario have called on their provincial governments to put a moratorium on fracking projects. Inverness County in Nova Scotia was the first municipality to pass a bylaw that bans fracking within county limits. The Unist’ot’en First Nation in northern B.C. has built a log cabin in a fracking pipeline’s “right-of-way.” Protests by the Tahltan First Nation’s Elders, other Indigenous communities, author Wade Davis and environmentalists resulted in a permanent ban on fracking in the Sacred Headwaters in British Columbia, which is on unceded Tahltan territory. In 2011, a special Assembly of First Nations Chiefs passed a resolution calling for research on the impacts of fracking as well as an immediate moratorium until First Nations have been fully informed and have given their free, prior and informed consent to fracking projects. Opposition from local, national and U.S. groups convinced the small county of Colchester, Nova Scotia to scrap a plan that would have allowed millions of litres of fracking wastewater to be released into the local watershed, which is connected to the Bay of Fundy.

Some provincial governments are moving forward with fracking without adequate research of its impacts on water, public health and the climate. People and communities must band together and demand that the government protect local water sources, public health and air quality. Small Indigenous communities, hamlets, villages and even community centres can – and are – being declared “frack-free zones.”

## Fracking our water

There is a global water crisis, and Canadian and Indigenous communities are not immune to its effects. Statistics Canada released a report a few years ago that found that southern Canada lost 8.5 per cent of its renewable water sources over a 34-year period. The Intergovernmental Panel on Climate Change’s 2008 Technical Paper on Climate Change and Water warns of increased droughts in southern Canada and a decrease in annual precipitation in the Prairies.

Fracking uses unsustainable amounts of water. A fracking project requires anywhere from 10 million to 200 million litres of water. Fracking also uses thousands of pounds of sand and thousands of litres of unknown chemicals.

The potential for fracking to cause water contamination has communities raising red flags. Studies in Canada and the U.S. have shown that some chemicals used in the fracking process cause cancer and contain hazardous air pollutants. Governments do not legally require companies to disclose the type and quantity of chemicals used for fracking. This information is even considered proprietary trade secrets.

A 2011 Assembly of First Nation resolution calls for thorough research on the impacts of water withdrawals for fracking, fracking chemicals, wastewater (water that is contaminated during the fracking process), and the treatment and storage of fracking wastewater. Chemical or methane contamination of First Nations’ water sources - some of which are already at risk - would devastate the communities that depend on them for basic needs and for cultural, spiritual, and socio-economic purposes.

There is no method to safely dispose of fracking wastewater. Municipal wastewater plants are not equipped to treat fracking wastewater. The B.C. Oil and Gas Commission has linked the injection of fracking wastewater into the ground with earthquakes in northeastern B.C.

### Climate impacts

There is a global climate crisis, and Canada must take responsibility for its previous and ongoing contributions to it. Not only is Canada home to the tar sands, one of the largest industrial projects on this planet, but it is also looking at expanding its fossil fuel industry by increasing fracking operations and projects related to fracking such as pipelines, liquefied natural gas facilities, and fracked gas exports. Canada cannot take meaningful action on climate change while expanding the fossil fuel industry.

Despite industry representatives and some governments promoting natural gas as a “clean, green fuel,” studies show that fracked natural gas can produce as much greenhouse gas emissions as coal. Fracking releases large amounts of natural gas, which consists of both CO<sub>2</sub> and methane, directly into the atmosphere. Methane, in particular, is a very powerful greenhouse gas because it can trap 20 to 25 times more heat in the atmosphere than carbon dioxide. Fracking and other parts of the fossil fuel industry are preventing Canada from reducing its greenhouse gas emissions and doing its fair share to mitigate the global climate crisis. This is yet another reason we need to stop fracking.

### Health impacts

U.S. residents that live close to or downwind from “fracked” wells have reported a number of health problems<sup>1</sup> including eye, throat and nasal irritation, frequent nosebleeds, extreme hair loss, unexplained rashes, chronic coughs and lung congestion and extreme fatigue. Children have developed asthma and even tumors, and are particularly susceptible to environmental hazards. The Fracking and Health Awareness Project (FHAP) warns that “children’s immature bodies are less able to

metabolize some toxic substances – so they are more vulnerable when they are exposed.”<sup>2</sup>

Radioactive materials can be dredged up with the gas and oil extracted from deep bedrock. Increased truck traffic – up to 1,400 heavy truck trips are needed per well – not only speeds up climate change, but contributes to local air pollution. The Fracking and Health Awareness Project warns that air pollution from industrial toxins is a major concern in shale gas areas. The FHAP points to a study by the Colorado School of Public Health where researchers found “a 66% increased cancer risk for residents living within a half mile of a gas well, and a 150% increased non-cancer risk (including respiratory, developmental, heart and stroke) for the same population.”<sup>3</sup>

### Protecting the human right to water means banning fracking

Since July 2010, the United Nations has passed several resolutions recognizing the human right to water and sanitation and has outlined governments’ obligations to fulfill this right. In Canada, we need a National Water Policy that respects the human right to water and sanitation.

Catarina de Albuquerque, the UN’s special rapporteur on the human right to safe drinking water and sanitation, calls for “a holistic consideration of the right to water by factoring it into policies having an impact on water quality, ranging from agriculture to chemical use in products to energy production activities.” Banning future fracking would be an important step forward by the Canadian

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<sup>1</sup> [pennsylvaniaallianceforcleanwaterandair.wordpress.com/the-list/](http://pennsylvaniaallianceforcleanwaterandair.wordpress.com/the-list/)

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<sup>2</sup> [frackingandhealth.ca/shale-gas-and-childrens-health/](http://frackingandhealth.ca/shale-gas-and-childrens-health/)

<sup>3</sup> McKenzie LM, et al, Human health risk assessment of air emissions from development of unconventional natural gas resources, *Sci Total Environ* (2012), doi:10.1016/j.scitotenv.2012.02.018

government in meeting its obligation to implement the human right to water in Canada.

## Governments' responsibilities

Regulation for fracking falls largely to provinces and territories because of their power to issue drilling and water permits. While it is true that hydraulic fracturing has been used for decades, this argument overlooks the fact that horizontal fracking for unconventional gas – shale gas, coalbed methane and tight gas – as well as conventional sources is new, and provincial regulations have not caught up to this expanding technology.

Provincial governments often have vested interests in permitting fracking because of the royalties they receive. Despite the short-term revenue generated, decisions to permit fracking must also include an assessment of future health care costs, water and environmental restoration, and climate change adaptation.

Federally, the Conservative government has made changes to environmental legislation that makes it easier for industry to move forward on fracking projects with little federal regulation.

Changes to the Canadian Environmental Assessment Act resulted in the cancellation of 3,000 project reviews across the country, some of which were fracking projects, or applications related to fracking. Pipeline approvals have been fast-tracked with a new 18-month time limit. The National Energy Board has broad new powers that allow it to narrow the issues considered and limit the scope of public participation. The clawback of the Navigable Waters Protection Act (now the Navigation Protection Act) not only exempted pipeline projects from this Act, but also removed protections from 99 per cent of lakes and rivers in Canada. The Canadian government is failing

in its duty to protect water sources and the public from harmful projects such as fracking.

It is up to communities and individuals to urge governments to protect public health and drinking water from fracking.

## A growing global movement

Communities in Canada are part of a growing global movement that is calling for a ban on fracking to protect water, ecosystems and public health. In Mexico, South Africa, the United States and all over Europe, communities are joining together to say they want a future lit by clean, renewable energy, not dirty, polluting fossil fuels. The first-ever Global Frackdown in September 2012 culminated in 200 community actions in more than 20 countries, all aimed at stopping fracking. There were more than 250 events in 30 countries in the second Global Frackdown, which took place on October 19, 2013.

The Council of Canadians is fighting fracking in communities across Canada. Our supporters and chapter activists work to promote clean water protection, renewable energy sources, democracy and community health at the grassroots level. We work with communities and local groups to stop fracking projects and protect our air and water commons.





### FREE, PRIOR AND INFORMED CONSENT OF INDIGENOUS COMMUNITIES

Fracking projects are happening on Indigenous lands without respect for First Nations Treaty Rights and Title. As noted in the Assembly of First Nations resolution on a Moratorium on Hydraulic Fracturing, the UN Declaration of the Rights of Indigenous People states:

*"Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination." Article 29 – 1*

*"States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent." Article 29 – 2*

*"States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources." Article 32 – 2*

*"Indigenous peoples have the right to have access to financial and technical assistance from States and through international cooperation, for the enjoyment of the rights contained in this Declaration." Article 39*

Fracking projects are taking place in Indigenous communities, some of which are already struggling to have access to clean and safe drinking water. Governments must obtain free, prior and informed consent before proceeding with fracking and related projects.

# Fracking Across Canada

In this section you will find an overview of where fracking is happening in Canada and what communities are doing to stop it. You will also find resources for more information, and contact information for groups that are working to stop fracking.







## British Columbia

Home to what's known as the world's largest frack, British Columbia has shale gas reserves in the Horn River, Montney, Liard and Cordova basins, which are all located in the northeast corner of the province. Media reports state that: "In B.C. alone, 7,300 wells have been fractured since 2005, and between 500 and a 1,000 new ones are being permitted each year." The frequency of fracking in the province is unparalleled. Over the course of 111 days in 2010, the world's largest frack took place at Two Island Lake in the Horn River Basin. According to Ben Parfitt's report *Fractured Lines*, there were 274 consecutive "stimulations" or fracks, with an average of 17 fracks per well using 5.6 million barrels of water, 111 million pounds of sand and unknown quantities of toxic chemicals.

The Canadian Society for Unconventional Resources estimates that B.C.'s three largest shale basins hold up to 1,000 trillion cubic feet of natural gas.<sup>4</sup>

According to Eoin Madden of B.C.'s Wilderness Committee, "There are currently permits in B.C. gifting the gas industry 60 million gallons of our freshwater – from 540 of our precious creeks, rivers and lakes – every single day. To put this amount into perspective, that's twice the amount the city of Victoria uses on a daily basis."

Even though the Horn River and Montney regions experienced terrible droughts in recent years, industry is ramping up to expand fracking in the province. There are currently 10 proposals for Liquefied Natural Gas (LNG) plants in the Kitimat-Prince Rupert region. These terminals would condense gas, turning it into liquid form so that it can be put on tankers and exported. This means there must also be pipelines built to get the gas to these



In November 2013, activists set up a mock fracking rig on Premier Christy Clark's lawn to bring attention to the risky practice.



LNG plants, one of them being the Pacific Trail Pipeline (PTP) which runs from Summit Lake to Kitimat on almost the same route as the Northern Gateway Pipeline.

The PTP is a fracking pipeline that would transport fracked gas from northeastern B.C. to LNG plants on the Pacific coast. The provincially-approved fracking pipeline could blaze a trail for further pipeline development by clear-cutting forest and creating infrastructure for other proposals such as Kinder Morgan's alternative northern route for their Trans Mountain pipeline, Spectra Energy, and others.

Allowing fracking and LNG industries to expand will have unprecedented impacts on water sources and on the province's greenhouse gas emissions. Studies already show that fracked natural gas can produce as much greenhouse gas (GHG) emissions as coal. Madden warns that at least eight times as much energy would be required by the energy industry than is currently provided by BC Hydro should these LNG plants go ahead, and the increase in GHGs from burning gas to run the facilities will "destroy B.C.'s position as a climate leader."

<sup>4</sup> [www.bcbusiness.ca/natural-resources/a-guide-to-bcs-shale-gas-boom](http://www.bcbusiness.ca/natural-resources/a-guide-to-bcs-shale-gas-boom)



While these projects may appear isolated and separate, they are actually connected and make up what *Fractured Land* filmmakers call "Canada's carbon corridor." The proposed Site C dam – a dam that would flood prime farmland in the Peace River region – would fuel fracking in northeastern B.C. Fracking in northeastern B.C. and existing and proposed pipelines would be used to fuel the Alberta tar sands.

The B.C. government is considering 20 water licence applications in the Fort Nelson area. Neither the B.C. nor the federal government will conduct environmental assessments on these applications.

The Harper government's 2012 omnibudget bills gutted the Canadian Environmental Assessment Act, resulting in the cancellation of 3,000 project reviews across the country. One cancelled review was for an application from energy company Encana that requested permission to withdraw 10 million litres of water per day – roughly the same amount of water used by 30,000 people – from Fort Nelson River for its fracking project. The project will seriously impact the river, which is the

## GROUPS WORKING ON FRACKING

Canadian Centre for Policy Alternatives  
[www.policyalternatives.ca/multimedia/fracking-bc](http://www.policyalternatives.ca/multimedia/fracking-bc)

The Council of Canadians B.C.-Yukon Regional Office  
[www.canadians.org/fracking](http://www.canadians.org/fracking)

Don't Frack BC campaign  
[www.facebook.com/DontFrackBc](http://www.facebook.com/DontFrackBc)  
[@DontFrackBC](https://twitter.com/DontFrackBC)

Sierra Club B.C.  
[www.sierraclub.bc.ca](http://www.sierraclub.bc.ca)

Wet'suwet'en mobilizing Unist'ot'en Action Camp  
[unistotencamp.wordpress.com](http://unistotencamp.wordpress.com)

Wilderness Committee  
[www.wildernesscommittee.org/fracking](http://www.wildernesscommittee.org/fracking)



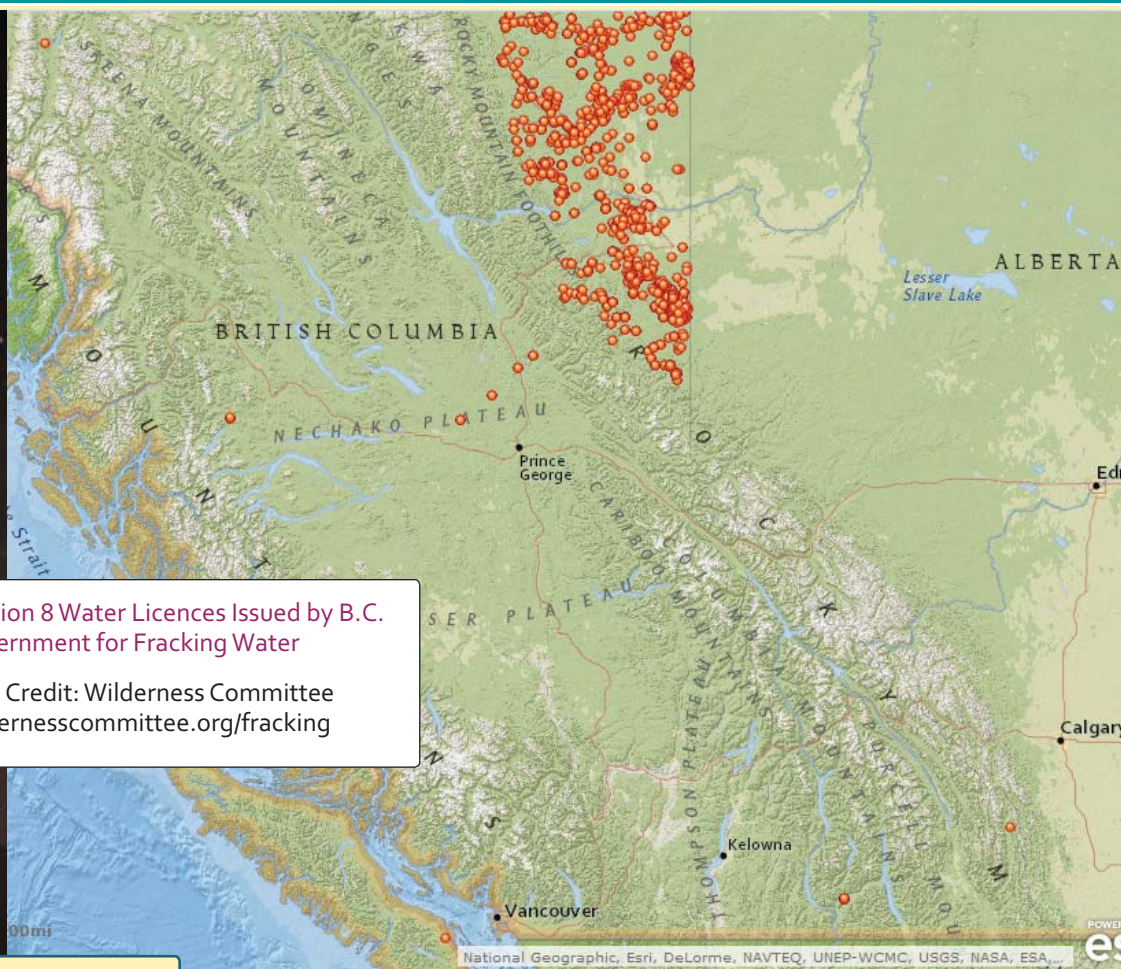


In January 2013, thousands attended the Vancouver Enbridge Noise Demo organized by Rising Tide and supported by 50 organizations. Photo by Caelie Frampton.



Section 8 Water Licences Issued by B.C. Government for Fracking Water

Map Credit: Wilderness Committee  
wildernesscommittee.org/fracking



## RESOURCES AND REGULATIONS

B.C. Oil and Gas Commission – Issues permits for water takings for fracking

[www.bcogc.ca](http://www.bcogc.ca)

B.C. Assembly of First Nations resolution

[www.bcafn.ca/files/documents/o6k-2012BCAFNresolutionshalegaswater.pdf](http://www.bcafn.ca/files/documents/o6k-2012BCAFNresolutionshalegaswater.pdf)

The Carbon Corridor and fracking in B.C.

[www.common sensecanadian.ca/category/energy-2/fracking-2](http://www.common sensecanadian.ca/category/energy-2/fracking-2)

FracFocus: Fracking Chemical Registry

[www.fracfocus.ca](http://www.fracfocus.ca)

Oil and gas laws

[www.bcogc.ca/legislation](http://www.bcogc.ca/legislation)

Union of British Columbia Indian Chiefs resolution

[www.ubcic.bc.ca/files/PDF/2012November\\_ChiefsCouncil\\_Resolutions.pdf](http://www.ubcic.bc.ca/files/PDF/2012November_ChiefsCouncil_Resolutions.pdf)

Fort Nelson First Nation's (FNFN) lifeline. The community has fervently opposed the project. In 2012, both the B.C. Assembly of First Nations and the Union of British Columbian Indian Chiefs passed resolutions supporting FNFN's call for a moratorium on all water licences for fracking in FNFN's traditional territories until full regional baseline studies are completed, culturally significant land and water resources are protected, and other requirements are met.

In November 2013, Sierra Club B.C. and the Wilderness Committee, represented by Ecojustice, launched a lawsuit against the B.C. Oil and Gas Commission and Encana. They are arguing that the commission's repeated short-term water approvals violate the province's Water Act.

## Yukon

Community opposition to fracking was spurred by an application submitted by the Chinese company Northern Cross for an environmental assessment in 2010. There is currently no fracking in the Yukon, but Northern Cross has been conducting 3D seismic testing.

The Council of Yukon First Nations, an organization of 14 First Nations, unanimously passed a resolution in July 2013 declaring traditional territories “frack-free.” Shortly after, Vuntut Gwitchin First Nation voted to ban fracking until it could be proven safe. Kaska First Nation has also come out against fracking. Even some businesses in the tourism industry are opposed to fracking.

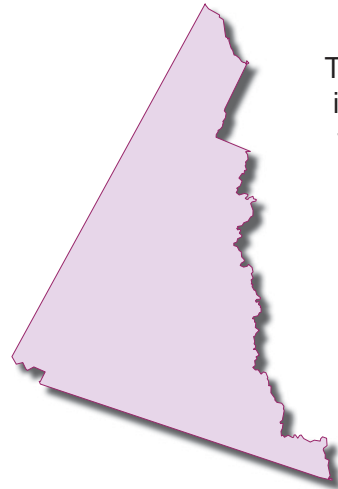
The Yukon legislature has created an all-party committee on hydraulic fracturing and will be holding public consultations on the issue followed by a report in spring 2014.

The Yukon government recently endorsed Yukon Energy Corporation’s move to “invest in the electricity supply option of Liquefied Natural Gas to replace some of its aging diesel generators.” Once this infrastructure is in place, a steady supply of (fracked) natural gas would be required.<sup>5</sup>

5 [www.yukonconservation.org/energy\\_climate\\_change.htm](http://www.yukonconservation.org/energy_climate_change.htm)



Five Finger Rapids, in the Whitehorse Trough.



The shale basins in the Yukon include the Liard Basin and the Eagle Plain Basin in northern Yukon. There are coal methane reserves in the Bonnet Plume Basin and Whitehorse Trough.<sup>6</sup> A temporary moratorium on shale gas development was implemented in the Whitehorse Trough in 2012.

6 [www.emr.gov.yk.ca/oilandgas/exploration.html#Yukons\\_Unconventional\\_Resources](http://www.emr.gov.yk.ca/oilandgas/exploration.html#Yukons_Unconventional_Resources)

### RESOURCES AND REGULATIONS

Energy, Mines and Resources  
[www.emr.gov.yk.ca](http://www.emr.gov.yk.ca)

Yukon Water Board - Issues water approvals  
[www.yukonwaterboard.ca](http://www.yukonwaterboard.ca)

Vuntut Gwitchin First Nation resolution  
[www.vgfn.ca/ga-2013.php](http://www.vgfn.ca/ga-2013.php)

### GROUPS WORKING ON FRACKING

Canadian Parks and Wilderness Society (CPAWS)  
[cpawsyukon.org](http://cpawsyukon.org)

The Council of Canadians Whitehorse Chapter  
[www.canadians.org/fracking](http://www.canadians.org/fracking)

Yukoners Concerned about Oil and Gas Development  
[www.facebook.com/pages/Yukoners-Concerned-About-Oil-Gas-ExplorationDevelopment/378945582118322](https://www.facebook.com/pages/Yukoners-Concerned-About-Oil-Gas-ExplorationDevelopment/378945582118322)

Yukon Conservation Society  
[www.yukonconservation.org](http://www.yukonconservation.org)





## The Northwest Territories

The Canol shale formation of the Sahtu Region in the central Mackenzie Valley is believed to be one of the largest potential sources of oil shale on the continent, with estimates of recoverable oil by fracking of between three and five billion barrels. Drawing comparisons to the prolific Bakken Basin that straddles the U.S.-Canada border, major oil and gas corporations, including Imperial Oil, Shell, ConocoPhillips, MGM Energy and Husky, have invested \$628 million since 2011 to lease 15 parcels in the central Mackenzie Valley for potential fracking projects. In July 2013, the federal government announced an additional 10 parcels of land would be available for lease. There is also potential for fracking in the southwest corner of the Northwest Territories (NWT) in the Fort Liard area.

In November 2012, an application by MGM Energy and Shell Canada for a land use permit and water licence for exploratory horizontal fracking was withdrawn by the company. The application was referred instead to the environmental assessment process.

In June 2013, the Sahtu Land and Water Board (SLWB) gave ConocoPhillips the green light to drill two exploratory horizontal fracking wells near Tulita, granting a land use permit and a water licence for the fracks without requiring an environmental assessment. The National Energy Board approved this project on October 31, 2013 and fracking is expected to begin in the



Council of Canadians Northwest Territories Chapter organizes march for second annual Global Frackdown. Photo by Bob Wilson.

### RESOURCES AND REGULATIONS

Government of NWT Department of Industry, Tourism and Investment  
[www.iti.gov.nt.ca](http://www iti.gov.nt.ca)

Sahtu Land and Water Board  
[www.slwb.com](http://www.slwb.com)

Northwest Territories legislation (oil and gas activities regulated by the National Energy Board)  
[www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/ctsndrgltn-eng.html](http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/ctsndrgltn-eng.html)

Canada Oil and Gas Operations Act  
[www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/rgltnsndgdlnsprnttthrtct/cndlndgsprtntsc/cndlndgsprtntsc-eng.html](http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/rgltnsndgdlnsprnttthrtct/cndlndgsprtntsc/cndlndgsprtntsc-eng.html)

Canada Petroleum Resources Act  
[www.canlii.org/en/ca/laws/stat/rsc-1985-c-36-2nd-supp/latest/](http://www.canlii.org/en/ca/laws/stat/rsc-1985-c-36-2nd-supp/latest/)

Canada Oil and Gas Drilling and Production Regulations  
[bit.ly/1gTcxNj](http://bit.ly/1gTcxNj)

Dene Nation resolution  
[www.denenation.com/Motions%20DLM.html](http://www.denenation.com/Motions%20DLM.html)

### GROUPS WORKING ON FRACKING

The Council of Canadians Northwest Territories Chapter  
[www.cocnwt.ca](http://www.cocnwt.ca)

Dene Nation  
[www.denenation.com](http://www.denenation.com)

Ecology North  
[www.ecologynorth.ca](http://www.ecologynorth.ca)



winter of 2013-2014. This is the first horizontal fracking project permitted in the NWT.

While some people in the Sahtu see oil and gas development as a promising source of revenue and jobs for the NWT, many are concerned about the impacts of fracking. The Dene Nation is concerned about pollution caused by fracking and opposes the process. In 2011, the Dene Nation passed a resolution calling for a moratorium until further research is conducted and proper regulatory requirements and safeguards are in place.

Water is a highly valued resource in the NWT. In 2006 the NWT became the only Canadian province or territory to declare water a fundamental human right.

Companies and government agencies are exploring the mining of silica sand deposits in two areas of the NWT to use in the fracking process. This further increases environmental disturbances and risks to public health and safety from fracking operations. The World Health Organization and the U.S. Department of Labor have also issued alerts that silica sand causes lung cancer, tuberculosis and silicosis, a lung disease affecting a person's ability to breathe.

Representatives of the NWT government and Aboriginal government took a tour of the Bakken formation in Saskatchewan and North Dakota in October 2013. However, the lessons learned from this major fracking development have not yet affected public policy with respect to the Canol shale formation.

In June 2013, Canada and the NWT signed a devolution agreement that will transfer administrative control of public land, water and resources to the territorial local government. The agreement takes effect April 1, 2014, but maintains legislative control in Ottawa. This transfer will result in non-renewable resources revenues being split as follows: federal government: 44 per cent; NWT government: 33 per cent; Aboriginal governments (seven "regions"): 23 per cent. However, given that federally-proposed amendments to the Mackenzie Valley Resource Management Act will consolidate greater federal legislative control over non-renewable resource development in the NWT, it is not clear whether devolution will increase territorial authority over these resources.

The NWT government has committed to releasing a draft set of horizontal hydraulic fracturing guidelines for public review in the fall of 2013, but this timeline may be extended.



The Mackenzie River, NWT. Photo by Adam Jones, Ph.D./Wikimedia Commons CC BY-SA 3.0





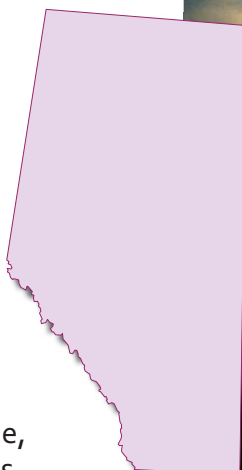
## Alberta

Fracking for shale gas, oil and coal bed methane are new industries to Alberta, although the province is more advanced than other areas in Canada. While industry representatives like to point out that fracking has occurred for 50 years in the province – the Alberta Energy regulator states that 171,000 wells have been fractured since the 1950s – multi-stage, horizontal fracking presents new challenges.

According to the Alberta Geological Survey (AGS), there are 15 prospective shale gas formations in the province. The AGS estimates that five of these formations (Duvernay, Muskwa, Basal Banff/Exshaw, North Nordegg, and the Wilrich) may contain up to 1,291 trillion cubic feet (TcF) of shale gas. Alberta Energy reports that the province could contain an additional 500 TcF of coalbed methane (CBM). CBM, like tight and shale gas, is an unconventional gas. CBM wells can be drilled horizontally and fracking is often used to access gas trapped in coal seams. CBM typically uses less fracking fluid than shale gas since wells are not as deep. But because fracking occurs close to the surface, there is greater risk for contaminating drinking water supplies. Alberta's Energy Resources Conservation Board acknowledged that Crew Energy and GasFrac Energy Services contaminated water sources by fracking the water table in Grande Prairie in September 2011.

The first commercial CBM well was drilled in 2001. According to an Albertan Environment webpage, "Over 17,000 CBM wells have been drilled or re-completed in the province as of March 2010 since coalbed methane production commenced several years ago. However, only a portion of these wells have recorded some production."<sup>7</sup>

Horizontal drilling and multi-stage fracking have also resulted in a conventional oil boom



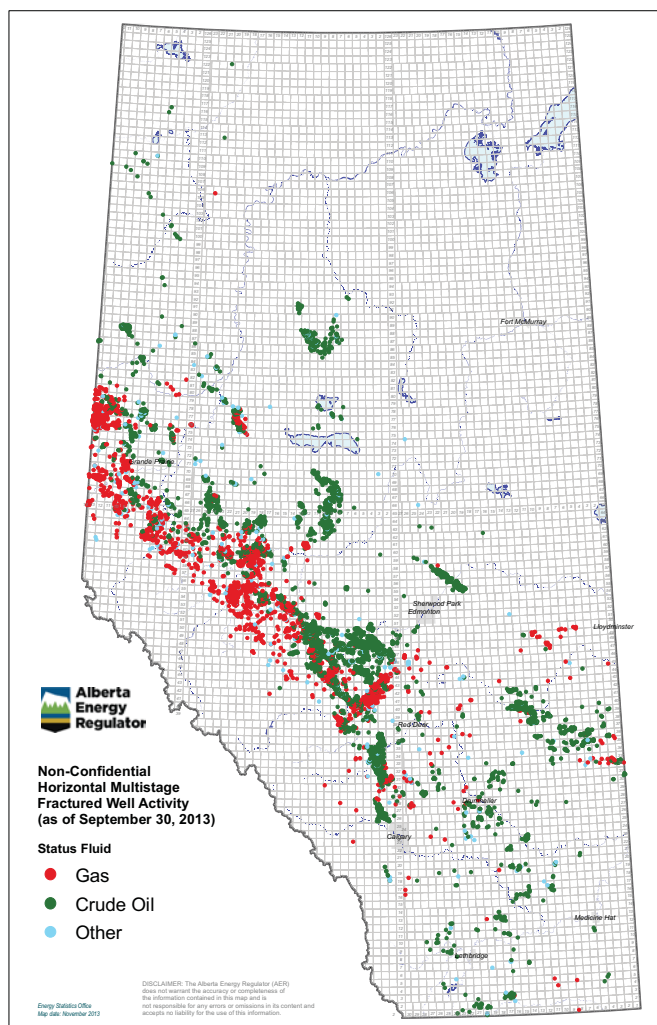
Fracking in Cochrane, Alberta has put landowners' water at risk. Photo by Scott Harris.

with an increase of 14 per cent in production from 2011 to 2012. For example, fracking in Cochrane and Goldenkey Oil's proposed project for Lethbridge – which, if approved, could begin in early 2014 – are for oil. There are also estimates of 423.6 billion barrels of shale oil in the province.

The proposed Lethbridge project is about 70 kilometres away from a fracking fight involving members of the Blood (or Kainai) First Nation, Murphy Oil and Bowood Energy. In 2010, the Blood Reserve's Chief and Council signed a \$50 million deal with the energy companies. But there wasn't agreement on the deal as many in the community opposed it. Three Indigenous women – Lois Frank, Elle-Maija Apiniskim Tailfeathers and Jill Crop Eared – were arrested when they blocked fracking trucks from accessing their land. More than one year later charges against the women were stayed.

Farmers and landowners are up in arms over the impact fracking is having on their drinking water, crops and farms. Landowner Jessica Ernst launched a lawsuit against Encana, Alberta Environment and the Energy Resources Conservation Board over contamination of her well water. In October 2013, an Alberta Court ruled that the Alberta Energy Regulator is immune to private legal claims. Ernst vowed to appeal the ruling and will continue her lawsuit against Encana.

7 [goo.gl/VtE7j](http://goo.gl/VtE7j)



There are a growing number of stories<sup>8</sup> from landowners of the impacts fracking is having on drinking water as well as their dairy and cattle farms. The Alberta Association of Municipal Districts and Counties passed Resolution 2-13S in the spring of 2013 citing concerns about the impact fracking has on drinking water, changes in land formations, and increased seismic activity. The association called on the Alberta government to report on the impacts of seismic activity, require mapping of all aquifers, and “protect surface and groundwater supply by imposing a minimum wellbore casing depth below aquifer zones.”<sup>9</sup>

<sup>8</sup> [albertavoices.ca](http://albertavoices.ca)

<sup>9</sup> [www.aamdc.com/attachments/article/482/Spring%202013%20Resolutions%20-%20Submitted.pdf](http://www.aamdc.com/attachments/article/482/Spring%202013%20Resolutions%20-%20Submitted.pdf).

## RESOURCES AND REGULATIONS

Alberta Utilities Commission (AUC) ([www.auc.ab.ca](http://www.auc.ab.ca)) and the Alberta Energy Regulator ([www.aer.ca](http://www.aer.ca)) regulates exploration, production, processing, transmission and distribution of natural gas within the province.

Alberta Energy Regulator posts notices of oil and gas projects on its website ([www.aer.ca/applications-and-notices/notices](http://www.aer.ca/applications-and-notices/notices)). Those directly affected by a project can file a Statement of Concern to document how the project will affect them ([www.aer.ca/applications-and-notices/statement-of-concern](http://www.aer.ca/applications-and-notices/statement-of-concern)).

Baseline water well testing for coalbed methane development [environment.alberta.ca/o1206.html](http://environment.alberta.ca/o1206.html)

Water Markets in Alberta  
[ourwaterisnotforsale.com](http://ourwaterisnotforsale.com)

Landowners have surface rights, including sand, gravel, clay, which can be excavated by surface operations, but this does not necessarily include mineral rights such as coal, petroleum and natural gas. [www.servicealberta.ca/589.cfm](http://www.servicealberta.ca/589.cfm)

Alberta Energy auctions off leases for oil and gas rights approximately every two weeks.  
[www.energy.alberta.ca/Tenure/1314.asp](http://www.energy.alberta.ca/Tenure/1314.asp)

Relevant legislation for oil and gas  
[www.torys.com/Publications/Publications/AR2013-1.pdf](http://www.torys.com/Publications/Publications/AR2013-1.pdf)

Watch the documentary *Burning Water*  
[www.cbc.ca/player/Shows/ID/1619380195/](http://www.cbc.ca/player/Shows/ID/1619380195/)

## GROUPS WORKING ON FRACKING

Alberta Fracking Resource & Action Coalition (ABFRAC) [www.facebook.com/ABFRAC](http://www.facebook.com/ABFRAC)

Alberta Surface Rights Group  
[www.albertasurfacerights.com](http://www.albertasurfacerights.com)

Alberta Voices [albertavoices.ca](http://albertavoices.ca)

The Council of Canadians Prairies-NWT Regional Office [canadians.org/fracking](http://canadians.org/fracking)

Jessica Ernst's case against Encana  
[www.ernstversusencana.ca](http://www.ernstversusencana.ca)

Kanai Lethbridge Earth Watch  
[www.klew.org](http://www.klew.org)

Keepers of the Water [www.keepersofthewater.ca](http://www.keepersofthewater.ca)

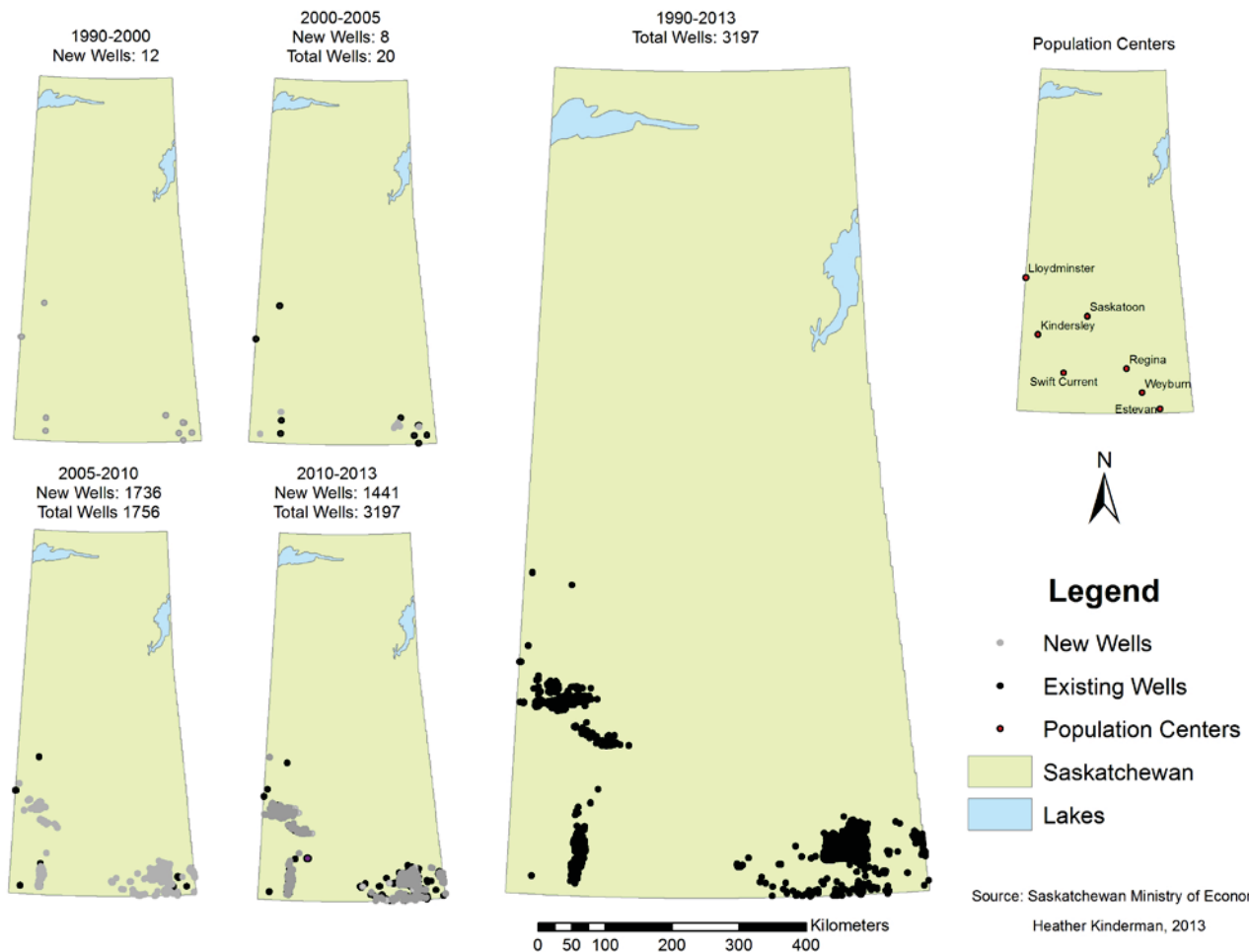
## Saskatchewan

Fracking in Saskatchewan is almost exclusively done for the extraction of the province's oil reserves. Most fracking in Saskatchewan is concentrated in the Bakken oil play, which straddles the United States-Canada border in North Dakota, South Dakota, Montana, southwest Manitoba, and the southeast portion of Saskatchewan. It is estimated that the Bakken holds 200-300 billion barrels of oil, with a potential 1.3 billion barrels that could be extracted in the Saskatchewan portion of the play. As a result, the area has seen double-digit growth in expenditures in recent

years. The Canadian Association of Petroleum Producers estimates there were 3,028 active wells in the Bakken as of January 2013 producing 69,000 barrels per day (bpd), up from 760 bpd in 2004. The largest producer in the Bakken, Crescent Point Resources Partnership, operates more than 1,000 wells in the play and has announced \$1.35 billion in capital development for 2013.

Saskatchewan Deputy Minister of Energy and Resources Kent Campbell claims that over the past 50 years, fracking has been used on roughly 33,500 oil and gas wells in the province, although the widespread use of multi-stage horizontal fracking is a more recent development. Almost half of this fracking activity has happened since 2000, with Ministry of Economy statistics

### Horizontal Fracked Wells in Saskatchewan: 1990-2013





revealing that 8,739 new wells were fracked in Saskatchewan from 2000-2005, 7,685 from 2005-2010, and 434 since 2010. Documents obtained from the Ministry of Economy reveal that there are close to 3,200 horizontal wells in the province.

### GROUPS WORKING ON FRACKING

The Council of Canadians Prairies-NWT Regional Office [www.canadians.org/fracking](http://www.canadians.org/fracking)

Saskatchewan Against Fracking  
[www.facebook.com/SaskatchewanAgainstFrackingSaf](https://www.facebook.com/SaskatchewanAgainstFrackingSaf)

Saskatchewan Eco Network  
[www.econet.ca](http://www.econet.ca)

Saskatchewan Environmental Society  
[www.environmentalsociety.ca](http://www.environmentalsociety.ca)

### RESOURCES AND REGULATIONS

2008 Report: Ultimate Potential for Conventional Natural Gas  
[www.er.gov.sk.ca/PotentialConventionalNG](http://www.er.gov.sk.ca/PotentialConventionalNG)

Department of Environment - Responsible for water withdrawals  
[www.wsask.ca/Permits-and-Approvals/Regulatory-Info/Industrial-Water-Use-Charges/](http://www.wsask.ca/Permits-and-Approvals/Regulatory-Info/Industrial-Water-Use-Charges/)

Occupational Health and Safety Regulations  
[www.qp.gov.sk.ca/documents/English/Regulations/Regulations/O1-1R1.pdf](http://www.qp.gov.sk.ca/documents/English/Regulations/Regulations/O1-1R1.pdf)

Oil and Gas Conservation Act [www.qp.gov.sk.ca/documents/English/Statutes/Statutes/O2.pdf](http://www.qp.gov.sk.ca/documents/English/Statutes/Statutes/O2.pdf)

Oil and gas legislation  
[www.er.gov.sk.ca/Default.aspx?DN=dacef797-97a9-4b04-9045-1568b89cb131](http://www.er.gov.sk.ca/Default.aspx?DN=dacef797-97a9-4b04-9045-1568b89cb131)

Saskatchewan Ministry of the Economy  
[economy.gov.sk.ca/](http://economy.gov.sk.ca/)

Saskatchewan Ministry of Environment  
[www.environment.gov.sk.ca](http://www.environment.gov.sk.ca)

## Manitoba

Fracking for oil in the province is confined to a small corner in southwestern Manitoba. Yet the number of fracking operations has skyrocketed in recent years. Since 2006, 1,978 horizontal wells have been drilled, most of which use hydraulic fracturing.<sup>10</sup> *The Winnipeg Free Press* reported

10 According to year-end weekly activity reports  
[www.manitoba.ca/iem/petroleum/wwar/index.html](http://www.manitoba.ca/iem/petroleum/wwar/index.html)



Defend our Climate, Defend our Communities event in Winnipeg, November 2013. Photo by Doug Thomas.



that most of the 3,600 active oil wells in the province use fracking.

Despite the prevalence of fracking for oil in southwestern Manitoba, there is little public information on the chemicals and the amount of water used in the fracking process. The Manitoba government is working on new regulations for the fracking industry, and exploring the development of a FracFocus website for Manitoba – a database that exists for B.C. and Alberta where companies volunteer information about fracking chemicals and water use. A similar database for Manitoba could be up and running by 2014. However, companies should be legally required

to disclose this information in order for the website to be truly effective.

*The Winnipeg Free Press* also reported that exploration for shale in Manitoba is underway with the potential for major industry expansion within the next 10 years. The potential shale formation runs from the Manitoba-Saskatchewan border to Treheme, and includes the Manitoba Escarpment, Swan Valley, the Porcupine Hills and around Riding Mountain.

### RESOURCES AND REGULATIONS

Drilling and Production Regulations  
[www.manitoba.ca/iem/petroleum/actsregs/drilprodregs.pdf](http://www.manitoba.ca/iem/petroleum/actsregs/drilprodregs.pdf)

Environmental protection plan required by section 104(1) Oil and Gas Act  
[web2.gov.mb.ca/laws/statutes/ccsm/0034e.php](http://web2.gov.mb.ca/laws/statutes/ccsm/0034e.php)

Manitobans own mineral rights to the land  
[www.manitoba.ca/iem/mrd/board/srboard.html](http://www.manitoba.ca/iem/mrd/board/srboard.html)

Petroleum development  
[www.manitoba.ca/iem/petroleum/index.html](http://www.manitoba.ca/iem/petroleum/index.html)

Pending applications  
[www.manitoba.ca/iem/petroleum/applications/index.html](http://www.manitoba.ca/iem/petroleum/applications/index.html)

Well Applications  
[www.manitoba.ca/iem/petroleum/wwar/index.html](http://www.manitoba.ca/iem/petroleum/wwar/index.html)

Public registry for Environmental Approvals  
[www.gov.mb.ca/conservation/eal/registries/index.html](http://www.gov.mb.ca/conservation/eal/registries/index.html)

Water Stewardship Division - Issue water approvals. A Water Rights Licence is required for use of surface water and groundwater if use exceeds 25,000 litres per day and can be issued for up to 20 years.  
[www.gov.mb.ca/waterstewardship/licensing/wlb/obtaining.html](http://www.gov.mb.ca/waterstewardship/licensing/wlb/obtaining.html)



### GROUPS WORKING ON FRACKING

The Council of Canadians Prairies-NWT Regional Office  
[www.canadians.org/fracking](http://www.canadians.org/fracking)

Green Action Centre  
[greenactioncentre.ca](http://greenactioncentre.ca)

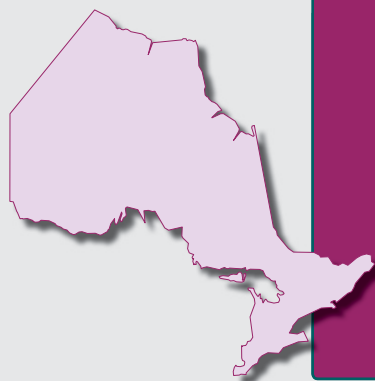
Manitoba Wildlands  
[manitobawildlands.org/gov\\_rc33.htm](http://manitobawildlands.org/gov_rc33.htm)

Wilderness Committee  
[wildernesscommittee.org/manitoba](http://wildernesscommittee.org/manitoba)



## Ontario

The province's shale gas reserves are located in southern Ontario. In 2010, Ontario's Ministry of Natural Resources released an aerial survey of shale formations in the province to assist gas companies in exploration.



The Ontario Geological Survey (OGS), part of the Ministry of Northern Development and Mines, released a report in November 2012 highlighting the shale gas potential in the Ordovician Shale formations in southern Ontario. In this second survey program, the OGS drilled in 11 locations, including the areas of St. Joseph, Little Current, Wiarton, Bruce, Chatham, Port Stanley, Halton, Mount Forest, Pickering and Russell. The 2012 report highlights certain formations of the Ordovician shales – particularly the Rouge River Member of the Blue Mountain Formation and the Collingwood Member of the Cobourg Formation – as having “the best potential for shale gas productive units.”

Ontario borders four of the five Great Lakes. Developing these shale formations could have serious implications on the waters of Georgian Bay, the Great Lakes as well as local watersheds. (See p. 31 for more on fracking in the Great Lakes Basin).

Alberta-based oil company Mooncor Oil & Gas has leased more than 12,000 acres of land in this area, and Dundee Energy Limited (formerly Eurogas) boasts of having the “largest accumulation of oil and gas producing assets in Ontario.”

Former Ontario Premier Dalton McGuinty said the province wouldn't allow fracking unless it was safe. Representatives of Ontario's natural resources and environment ministries stated

### GROUPS WORKING ON FRACKING

The Council of Canadians Ontario-Quebec-Nunavut  
Regional Office  
[www.canadians.org/fracking](http://www.canadians.org/fracking)

Don't Frack Around London  
[www.facebook.com/groups/123980827684196/](https://www.facebook.com/groups/123980827684196/)

Stop Fracking Ontario  
[stopfrackingontario.wordpress.com/](http://stopfrackingontario.wordpress.com/)

that “the public interest warrants a review” and have committed to conducting a review.<sup>11</sup>

Even though there are currently no immediate plans for fracking in Ontario, the Great Lakes are still being threatened by fracked gas from the Marcellus and Utica shales. Union Gas and Enbridge are trying to convince the Ontario Energy Board of the need for new and expanded natural gas infrastructure in the Greater Toronto Area and throughout the province. The companies are proposing that expanding this infrastructure will diversify supply, lower upstream risks and reduce supply costs. The approval could open the door to more fracking of the Marcellus shale, which would pose serious risks to the Great Lakes Basin with massive water withdrawals, potential water contamination, pipeline leaks and hazardous waste risks. Upstate New York already imports and disposes of radioactive fracking waste from Marcellus shale projects in Pennsylvania, putting local watersheds, Lake Ontario and the Great Lakes Basin at risk.

<sup>11</sup> [www.thestar.com/business/economy/2013/01/30/ontario\\_will\\_review\\_fracking\\_rules.html](http://www.thestar.com/business/economy/2013/01/30/ontario_will_review_fracking_rules.html)

## RESOURCES AND REGULATIONS (Ontario)

In Ontario, landowners own mineral rights including oil and gas. Ontario's Ministry of Natural Resources regulates oil and gas drilling in the province.

[www.mnr.gov.on.ca/en/Business/OGSR/2ColumnSubPage/STELo2\\_167099.html](http://www.mnr.gov.on.ca/en/Business/OGSR/2ColumnSubPage/STELo2_167099.html) and [www.mnr.gov.on.ca/en/Business/OGSR/2ColumnSubPage/STELo2\\_167098.html](http://www.mnr.gov.on.ca/en/Business/OGSR/2ColumnSubPage/STELo2_167098.html)

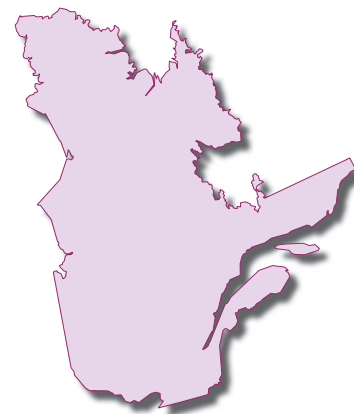
If a company wishes to withdrawal more than 50,000 litres of water, it must apply for a permit to take water. Companies pay \$3.71 per million litres of water in Ontario.

[www.ene.gov.on.ca/environment/en/industry/assessment\\_and\\_approvals/water\\_taking/STDPROD\\_075554.html](http://www.ene.gov.on.ca/environment/en/industry/assessment_and_approvals/water_taking/STDPROD_075554.html)

Permits to take water must be posted for 60 days on the Environmental Registry.

[www.ebr.gov.on.ca/ERS-WEB-External/](http://www.ebr.gov.on.ca/ERS-WEB-External/)

## Quebec



In May 2013 Quebec's Environment Minister tabled Bill 37, which, if passed, would see a moratorium on fracking in the Lowlands of the St. Lawrence River for up to five years. The proposed legislation would revoke all drilling licences in the area and prohibit new ones. The legislation also includes fines of up to \$6 million for companies that attempt shale gas exploration. The Parti Québécois minority government needs opposition support for the legislation to pass. The Quebec government also held a consultation process to obtain public input on major energy issues facing Quebec in the fall of 2013.

While opposition parties are withholding support for the bill, many feel the bill would not go far enough as it would not apply to all of Quebec. For example, the proposed legislation would not stop shale oil exploration in the less densely populated Anticosti Island.

Bill 37 follows years of opposition to fracking in Quebec. In 2008 there was a burst of exploration activity in the St. Lawrence River Lowlands for the Utica shale formation, with 31 wells fracked.<sup>12</sup> This kindled significant local outrage and opposition, with dozens of municipalities passing resolutions banning fracking in their communities. The Bureau d'audiences publiques sur l'environnement held hearings on fracking, which were well attended and controversial. The hearings resulted in a strategic environmental assessment on shale gas. Forced to respond, the then-Liberal Quebec government declared a provincial moratorium on fracking in 2012 until further study could be conducted. The environmental assessment is ongoing, and is expected to conclude in 2014.



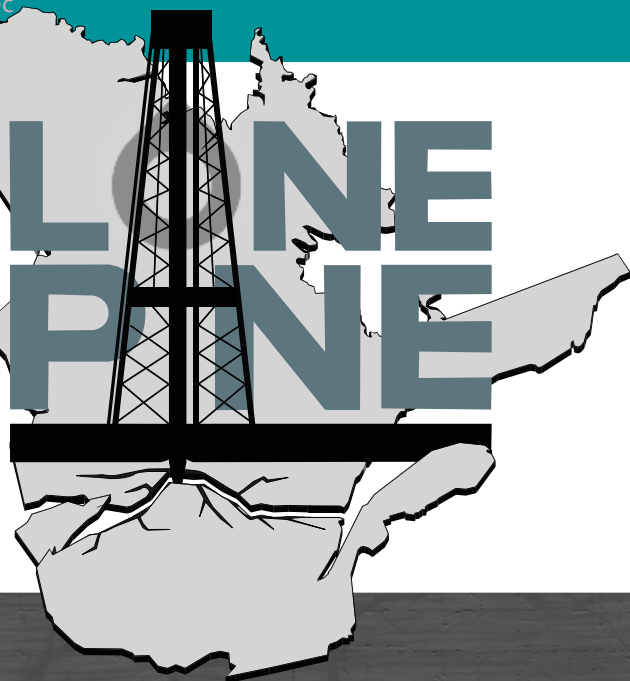
Climate Justice Montreal set up a fracking site outside of the Queen Elizabeth hotel, site of the Quebec Association of Oil and Gas Producers 2010 conference. Photo courtesy of Climate Justice Montreal.

<sup>12</sup> [business.financialpost.com/2012/09/20/quebec-hints-at-long-term-shale-gas-ban-citing-ecological-risks/](http://business.financialpost.com/2012/09/20/quebec-hints-at-long-term-shale-gas-ban-citing-ecological-risks/)





Quebec



## FREE TRADE IS **FRACKING** WITH OUR FUTURE

Energy firm Lone Pine Resources is using investor rights provisions in the North American Free Trade Agreement (NAFTA) to challenge Quebec's 2011 moratorium on hydraulic fracturing for natural gas. Lone Pine says the moratorium upsets its right to profit from oil and gas mining in the St. Lawrence Valley, and is asking for \$250 million in compensation.

This case proves that trade and investment deals such as NAFTA, the proposed Canada-European Union Comprehensive Economic and Trade Agreement (CETA), and Canada's many Foreign Investment Promotion and Protection Agreements (FIPAs), undermine our basic democracy, threaten needed environmental regulations, and put private profits above the public good. Communities, not private firms, should have the final say on fracking and other projects that threaten water sources, the environment and public health – and there should be no penalty for saying "no."

### READ MORE:

Factsheet: Free trade is fracking with our future  
[canadians.org/content/free-trade-fracking-out-future](http://canadians.org/content/free-trade-fracking-out-future)

Fracking is not a right: Tell Lone Pine to drop its NAFTA lawsuit against Quebec's moratorium on fracking!  
[canadians.org/action/petition/index.php](http://canadians.org/action/petition/index.php)

### GROUPS WORKING ON FRACKING

Alternatives [www.alternatives.ca](http://www.alternatives.ca)

L'Association québécoise de lutte contre la pollution atmosphérique (AQLPA)  
[www.aqlpa.com](http://www.aqlpa.com)

Campaign for a complete moratorium of at least twenty years of fracking exploration and exploitation in Québec- Moratoire d'une génération  
[moratoiredunegeneration.ca](http://moratoiredunegeneration.ca)

Coalition of local groups opposing fracking - Regroupement Interrégional Gas de Schiste de la Vallée du St-Laurent  
[www.regroupementgazdeschiste.com](http://www.regroupementgazdeschiste.com)

Collectif scientifique sur la question du gaz de schiste au Québec  
[collectif-scientifique-gaz-de-schiste.com](http://collectif-scientifique-gaz-de-schiste.com)

The Council of Canadians Ontario-Quebec-Nunavut Regional Office  
[www.canadians.org/fracking](http://www.canadians.org/fracking)

Eau Secours [eausecours.org](http://eausecours.org)

Mobilisation gaz de schiste de Saint-Marc-sur-Richelieu  
[mobilisationgazdeschiste.blogspot.ca](http://mobilisationgazdeschiste.blogspot.ca)

### RESOURCES AND REGULATIONS

Maps of Oil and Gas Licences in Force  
[www.mrn.gouv.qc.ca/english/energy/oil-gas/oil-gas-potential.jsp](http://www.mrn.gouv.qc.ca/english/energy/oil-gas/oil-gas-potential.jsp)

Ministry of Natural Resources  
[www.mrn.gouv.qc.ca/english/home.jsp](http://www.mrn.gouv.qc.ca/english/home.jsp)

Ministry of Sustainable Development, Environment, Wildlife and Parks for water approvals  
[www.mddefp.gouv.qc.ca/eau/redevance/reglement-en.htm](http://www.mddefp.gouv.qc.ca/eau/redevance/reglement-en.htm)

Public consultation on energy  
[consultationenergie.gouv.qc.ca/english/](http://consultationenergie.gouv.qc.ca/english/)

Québec Strategic Environmental Assessment on Shale Gas  
[ees-gazdeschiste.gouv.qc.ca/en/](http://ees-gazdeschiste.gouv.qc.ca/en/)



## Nova Scotia

In early 2011, the Nova Scotia government announced it would be reviewing hydraulic fracturing. The review process would determine “potential environmental impacts of hydraulic fracturing in onshore petroleum exploration.”<sup>13</sup>

The review was extended in April 2012 for an additional two years, in part to allow for other reviews to take place and for more information to be gathered. The provincial government would not consider or approve any new applications during the review period, which is expected to be complete in the summer of 2014.<sup>14</sup>

In August 2013, groups celebrated the Nova Scotia government’s announcement that it would cancel the current review of fracking and replace it with a more comprehensive and independent review that would include public consultations and an advisory panel of experts who would examine the social, economic, environmental and health impacts of fracking. Fracking has, in the past, been allowed in Nova Scotia. In 2007 in the Kennetcook and Noel regions in Hants County, Triangle Petroleum Resources was issued several fracking and water extraction permits. The lack of information related to this project, and concerns that other projects may be permitted, gave rise to the coalition known as “NOFRAC” (Nova Scotia Fracking Resource and Action Coalition). Through access to information requests, NOFRAC pieced together information about fracking in Hants County and documented it in their report,

<sup>13</sup> [www.gov.ns.ca/nse/pollutionprevention/consultation.hydraulic.fracturing.asp](http://www.gov.ns.ca/nse/pollutionprevention/consultation.hydraulic.fracturing.asp); [novascotia.ca/news/release/?id=20110404012](http://novascotia.ca/news/release/?id=20110404012)

<sup>14</sup> [www.cbc.ca/news/canada/nova-scotia/story/2012/04/17/ns-fracking-decision-delay.html](http://www.cbc.ca/news/canada/nova-scotia/story/2012/04/17/ns-fracking-decision-delay.html); [novascotia.ca/news/release/?id=20120416004](http://novascotia.ca/news/release/?id=20120416004)



2012 Global Frackdown on Cape Breton Island, Nova Scotia.

### *Out of Control: Nova Scotia’s experience with fracking for shale gas.<sup>15</sup>*

In 2010, the local chapter of the Council of Canadians began to raise concerns about the potential for fracking near Lake Ainslie, Nova Scotia’s largest freshwater lake. PetroWorth Resources, now known as First Sahara Energy Inc., had been granted permission to drill an exploratory oil well beside the lake. Many individuals and groups joined the fight and the campaign “Protect Lake Ainslie” got underway. The Margaree Environmental Association appealed the Environment Minister’s decision to grant the exploration permit. Unfortunately, this appeal was dismissed. In September 2012, the Mi’kmaq Warriors Society and other Indigenous communities set up a partial blockade on the Canso Causeway to highlight their concerns with the dangers of fracking. The Council’s Inverness County Chapter continued to advocate for an anti-fracking bylaw and due to intense community pressure, Inverness County Council passed the first bylaw banning fracking in Canada in May 2013. PetroWorth never began drilling and the company’s lease expired on July 15, 2013.

Colchester County also waded into the fracking debate when Atlantic Industrial Services (AIS) applied for a permit to release what they claimed to be “treated” fracking wastewater into the County’s wastewater sewage system in Debert. AIS has been receiving fracking waste from projects in New Brunswick as well as the

<sup>15</sup> [nofrac.wordpress.com/nofrac-reports/issue-paper-2/](http://nofrac.wordpress.com/nofrac-reports/issue-paper-2/)

exploration wells in Nova Scotia. The fracking wastewater would have been released into the Chiganois River, impacting communities near Cobequid Bay and the Bay of Fundy. Colchester's Sewer Use Appeal Committee ultimately rejected the permit, stating that it was not the municipality's role "to allow the Bay of Fundy to be the petri dish for fracking wastewater." AIS still has at least 8.9 million litres of fracking wastewater from the Nova Scotia fracking operations alone.<sup>16</sup> Windsor, Nova Scotia has accepted the same "treated" fracking waste, and allowed 7 million litres of fracking wastewater containing radioactive elements to be discharged through Windsor's sewage system that connects to the Minas Basin. There is another request on the table from AIS to treat and discharge more fracking wastewater.<sup>17</sup>

The Nova Scotia government must consult with the public about how to safely dispose of the existing fracking wastewater and implement a ban on fracking in the province so that no further fracking wastewater is produced.

Community opposition has played a major role in the efforts to protect communities from fracking in Lake Ainslie and Colchester County. Colchester County received 40 written submissions and heard multiple presentations during the public consultation process. Opposition is ramping up in Windsor now to stop the town from accepting fracking waste and discharging it in local waterways. In November 2013, the Union of Nova Scotia Municipalities passed a resolution supporting a province-wide moratorium on hydraulic fracturing and highlighting the problem of fracking wastewater in Nova Scotia. The newly elected Liberal government has passed a law

<sup>16</sup> [www.cbc.ca/news/canada/nova-scotia/story/2013/05/17/ns-debert-decision.html](http://www.cbc.ca/news/canada/nova-scotia/story/2013/05/17/ns-debert-decision.html); [www.colchester.ca/committee-decision](http://www.colchester.ca/committee-decision); [halifax.mediacoop.ca/author/ken-summers](http://halifax.mediacoop.ca/author/ken-summers)

<sup>17</sup> [www.cbc.ca/news/canada/nova-scotia/story/2012/10/18/ns-windsor-fracking-water-concerns.html](http://www.cbc.ca/news/canada/nova-scotia/story/2012/10/18/ns-windsor-fracking-water-concerns.html); [halifax.mediacoop.ca/author/ken-summers](http://halifax.mediacoop.ca/author/ken-summers)

banning the importation of fracking waste and has committed to upholding the moratorium and conducting the independent review.

## GROUPS WORKING ON FRACKING

Clean Water Windsor

[www.facebook.com/cleanwaterwindsor](http://www.facebook.com/cleanwaterwindsor)

The Council of Canadians Inverness County, North Shore, and South Shore Chapters

[www.canadians.org/fracking](http://www.canadians.org/fracking)

EHFOG: East Hants Fracking Opposition Group

[www.facebook.com/pages/East-Hants-Fracking-Opposition-Group/223464937793337](http://www.facebook.com/pages/East-Hants-Fracking-Opposition-Group/223464937793337)

NOFRAC

[nofrac.wordpress.com](http://nofrac.wordpress.com)

No Fracking - Windsor Block Nova Scotia

[www.facebook.com/NoFrackingWindsorBlockNovaScotia](http://www.facebook.com/NoFrackingWindsorBlockNovaScotia)

Protect Lake Ainslie

[www.facebook.com/protectlakeainslie](http://www.facebook.com/protectlakeainslie)

Save the Bay of Fundy

[www.facebook.com/groups/171491989666644/](http://www.facebook.com/groups/171491989666644/)

Sierra Club Atlantic

[atlantic.sierraclub.ca](http://atlantic.sierraclub.ca)

## RESOURCES AND REGULATIONS

Nova Scotia Environment - Issues water approvals

[www.gov.ns.ca/nse/resources/permits.asp#water\\_approvals](http://www.gov.ns.ca/nse/resources/permits.asp#water_approvals)

Nova Scotia Environment's hydraulic fracturing review

[www.gov.ns.ca/nse/pollutionprevention/consultation/hydraulic.fracturing.asp](http://www.gov.ns.ca/nse/pollutionprevention/consultation/hydraulic.fracturing.asp)

Inverness County's bylaw

[www.canadians.org/sites/default/files/water/fracking/Anti-fracking\\_bylaw\\_passed\\_May6\\_2013.pdf](http://www.canadians.org/sites/default/files/water/fracking/Anti-fracking_bylaw_passed_May6_2013.pdf)



## Newfoundland and Labrador

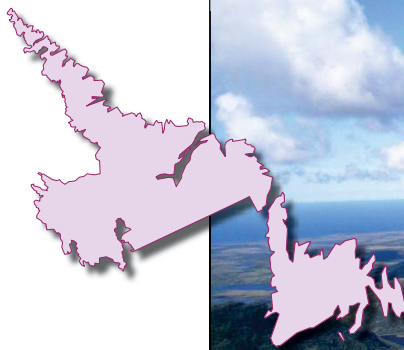
On November 4, 2013, Minister of Natural Resources Derrick Dalley announced that the government would not be “accepting applications for onshore and onshore-to-offshore petroleum exploration using hydraulic fracturing,” which effectively created a temporary ban on fracking in Newfoundland and Labrador.

In March 2013, Shoal Point Energy Ltd. and Black Spruce Exploration Corp. had submitted a proposal to the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) to perform onshore-to-offshore fracking for oil exploration in three sites along the west coast of Newfoundland. A month later, the C-NLOPB directed Shoal Point and Black Spruce to register their project with the province.

Black Spruce had negotiated a farm-in agreement for exploration with Shoal Point and will be responsible for any drilling program. Since the drilling is offshore-to-onshore, two approval bodies are involved: the C-NLOPB and the province. As of November 2013, no formal project proposal has been submitted to the province.

In the meantime, the C-NLOPB will run its assessment of the project in conjunction with the province.

Black Spruce now holds title to more than 280,000 hectares of land spanning three different licences along the west coast. In September 2012, Shoal Point Energy claimed that Green Point shale – the long and narrow stretch of shale rock along Western Newfoundland – is “one of the significant resources in North America.”<sup>18</sup>



Gros Morne National Park, a UNESCO World Heritage Site, was threatened by plans to frack Sally's Cove, an enclave community of the park. Photo by Natalie Lucier, CC-BY-2.0

Shoal Point Energy's consulting firm indicated that the shale is several times thicker than other formations, and has also been broken up a bit by shifting tectonic plates, making it more difficult to drill. Black Spruce Exploration has since announced it would like to see the west coast of Newfoundland transform into an oil industry with hundreds of wells along the coastline.

Opposition has been growing since the fall of 2012 when communities first learned about the project and the potential impacts of fracking on their communities. There are several groups along the coast concerned about fracking and a coalition of groups called “The Newfoundland and Labrador Fracking Awareness Network” was launched in the summer of 2013.<sup>19</sup>

Concerns include negative impacts on the more than \$1 billion tourism industry, the fisheries, as well as to human health and the environment. Newfoundland and Labrador currently has no regulations that deal specifically with fracking, and no facilities to manage fracking wastewater.

<sup>18</sup> [www.huffingtonpost.ca/2012/09/09/shoal-point-energy-shale\\_n\\_1868189.html](http://www.huffingtonpost.ca/2012/09/09/shoal-point-energy-shale_n_1868189.html)

<sup>19</sup> [www.thetelegram.com/News/Local/2013-08-01/article-3335217/Moderate-fracking-awareness-group-created/1](http://www.thetelegram.com/News/Local/2013-08-01/article-3335217/Moderate-fracking-awareness-group-created/1)



A lot of public concern is focused on one location, Sally's Cove, which is located just north of Rocky Harbour and is fully encircled by Gros Morne National Park, a UNESCO World Heritage Site. Negative impacts due to construction and potential spills or leaks would impact Gros Morne directly. UNESCO has indicated it is concerned and wants to look over any environmental reviews before drilling starts to determine whether the park's status as a heritage site might be in jeopardy.<sup>20</sup>

UNESCO representatives have announced they will visit Gros Morne to gain a better understanding of the situation.

A group from the Port au Port region hosted a public presentation that included experts from both sides, including then Natural Resources Minister Tom Marshall. Close to 400 concerned citizens attended the presentation. Since then, the group – with the support of others – has toured the region to give educational presentations in small communities along the west coast of Newfoundland. The topic has been in the media since November 2012. Public pressure on the government through letters to the editor, as well as letters to the C-NLOPB and provincial politicians, prompted Minister Marshall to visit the regions that were fracking at the time in order to understand the science of it before the government announced a temporary ban in November 2013. The government committed to conducting an internal review of regulations in other jurisdictions and an assessment of the geological impacts in Western Newfoundland, which would be followed by public consultations.

The province-wide Fracking Awareness Network has called for a halt on all current fracking projects. The network is insisting on a comprehensive, independent, science-based review, including a human health impact

analysis to fully understand the potential effects on the region. The network says this review should focus on protecting citizens and the environment.

## GROUPS WORKING ON FRACKING

The Council of Canadians St. John's Chapter  
[www.facebook.com/SJCANADIANS](http://www.facebook.com/SJCANADIANS)

Merci Centre for Ecology and Justice  
[mercycentreforecologyandjustice.org](http://mercycentreforecologyandjustice.org)

Newfoundland and Labrador Fracking Awareness Network  
[www.nlfan.ca](http://www.nlfan.ca)

Port Au Port / Bay St. George Fracking Awareness Group  
[www.facebook.com/groups/471261759605852/586027944795899/?notif\\_t=like](http://www.facebook.com/groups/471261759605852/586027944795899/?notif_t=like)

Save Gros Morne & our West Coast  
[www.facebook.com/SaveGrosMorne](http://www.facebook.com/SaveGrosMorne)  
[savewestcoastnl.wordpress.com](http://savewestcoastnl.wordpress.com)

Sierra Club Atlantic  
[atlantic.sierraclub.ca](http://atlantic.sierraclub.ca)

The Western Environment Centre  
[wecnl.wordpress.com](http://wecnl.wordpress.com)

## RESOURCES AND REGULATIONS

Canada-Newfoundland and Labrador Offshore Petroleum Board  
[www.cnlopb.nl.ca](http://www.cnlopb.nl.ca)

Department of Environment and Conservation  
[www.env.gov.nl.ca/env/waterres/](http://www.env.gov.nl.ca/env/waterres/)

Department of Environment and Conservation - water approvals  
[www.env.gov.nl.ca/env/waterres/regulations/appforms/](http://www.env.gov.nl.ca/env/waterres/regulations/appforms/)

Public registry of water licences  
[www.env.gov.nl.ca/env/waterres/regulations/waterrights/registry\\_of\\_water\\_rights.pdf](http://www.env.gov.nl.ca/env/waterres/regulations/waterrights/registry_of_water_rights.pdf)

<sup>20</sup> [www.cbc.ca/news/canada/newfoundland-labrador/story/2013/06/19/nl-unesco-gros-morne-fracking-619.html](http://www.cbc.ca/news/canada/newfoundland-labrador/story/2013/06/19/nl-unesco-gros-morne-fracking-619.html)



## New Brunswick

Tensions are mounting in New Brunswick as David Alward's Conservative government pushes forward fracking projects in the province despite strong opposition from people and community groups that are pressing instead for a provincial ban or moratorium.

Arguing that fracking – or “shale gas development” as it's known in the province – would create new jobs and boost the economy, Premier Alward and his government have been staunch industry supporters. In November 2013, the government announced a new royalty regime for natural gas extraction aimed at enticing industry to start new projects.

According to the province's Environment Minister, New Brunswick has about 80 trillion cubic feet of shale, although it is unclear exactly how much gas is actually trapped in the rock.



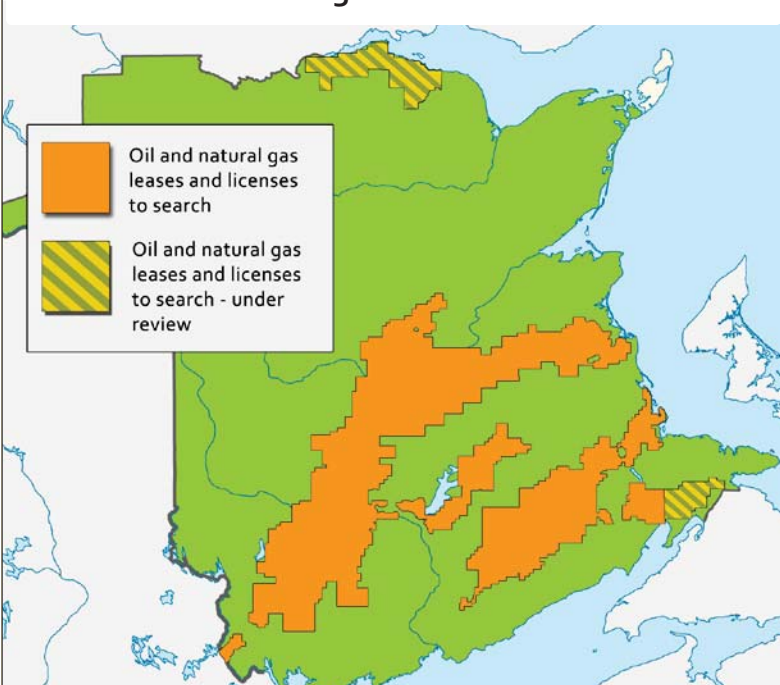
Maude Barlow stops at Richibucto River, New Brunswick on her way to meet Elsipogtog chief to express solidarity.

There are about 30 gas wells operating in southern New Brunswick near Sussex. In many communities around the province, oil and gas companies have held licences to explore and leases to produce fracked oil and gas for years. Several of these companies have drilled test wells or conducted seismic testing.

Penobsquis, a small community in the south-west of the province, had its first non-conventional gas wells drilled in 2000 and 2001. Since then, many more rounds of seismic testing have occurred and several more wells have been drilled. There are currently 30 gas producing wells in Penobsquis. The community faces the dangerous combination of gas production and potash mining, which has led to numerous issues including wells drying up, health concerns, and homes and properties being damaged by the ground settling. Many people in the community have filed complaints with the province's Mining Commissioner against PotashCorp, and are seeking compensation.<sup>21</sup>

More recently, seismic testing and well drilling are being carried out in communities along the shale formation, including in the Kent County area. Public opposition has been fierce and has led to a dramatic increase in awareness about shale gas development in the province and the Atlantic region.

### Oil and Gas Rights in New Brunswick



Oil and natural gas rights data source: GeoNB, [geonb.snb.ca/ong/](http://geonb.snb.ca/ong/)  
 Map source: [Canada\\_New\\_Brunswick\\_location\\_map.svg](#) by  
 Wikimedia Commons user NordNordWest, CC BY-SA 3.0

21 [www.penobsquis.ca/concerned-citizens/](http://www.penobsquis.ca/concerned-citizens/)



The protests in Kent County target SWN Resources, a Texas-based company doing exploratory seismic testing. SWN has a provincial licence that allows it to search for trapped gas across about 900,000 hectares of New Brunswick.

SWN is conducting the testing on unceded Mi'kmaq lands of the Signitog District. Members of the Elsipogtog First Nation have said "no" to testing and fracking on their land. After a peaceful blockade throughout the summer, the Elsipogtog and others who oppose shale gas development in the province made international headlines when RCMP officers with riot gear, assault rifles and snipers moved in on peaceful protesters. Most media coverage of the events ignored a key issue: that the Elsipogtog are standing up to protect their land, water and families from the harmful effects of fracking.

## New Brunswickers against fracking

Opposition to shale gas development has been growing since 2010, with the formation of 29 community groups across the province that work in coalition and on their own to educate people and try to put the brakes on this growing industry. Groups have lobbied provincial political parties, municipal governments and the Union of Municipalities of New Brunswick, Indigenous leaders, and the office of the Ombudsman, and reached out to allies and potential allies about the various risks associated with fracking. In 2012, the New Brunswick government held public consultations on fracking and commissioned Dr. Louis Lapierre to facilitate and summarize them, as well as meetings with other stakeholders, in a report. Around the same time, Dr. Eilish Cleary, Chief Medical Officer of Health for New Brunswick, wrote a report reviewing the health implications and considerations related to shale gas development.

Dr. LaPierre's report, titled *The Path Forward*, compiled data from both public and stakeholder meetings where the majority of participants were against fracking. His 38-page report summarized what issues were raised and then gave recommendations, based on "the economic importance and beneficial impact the shale gas industry." His recommendations focused on how New Brunswickers and the industry could co-exist.<sup>22</sup> Dr. Cleary completed her detailed 70-page report titled *Chief Medical Officer of Health's Recommendations Concerning Shale Gas Development in New Brunswick* in September 2012. Her main conclusions identified the province's lack of a comprehensive health risk assessment of fracking, and the lack of a framework for assessing public health risks on a project-by-project basis.<sup>23</sup>

In May 2013, the New Brunswick government announced new regulations for the shale gas industry, which purportedly took into account the recommendations of both the Cleary and LaPierre reports (*The New Brunswick Oil and Natural Gas Blueprint, May 2013*). In fact, none of the Cleary recommendations are in the government plan, whereas LaPierre was named head of the Energy Institute he recommended.

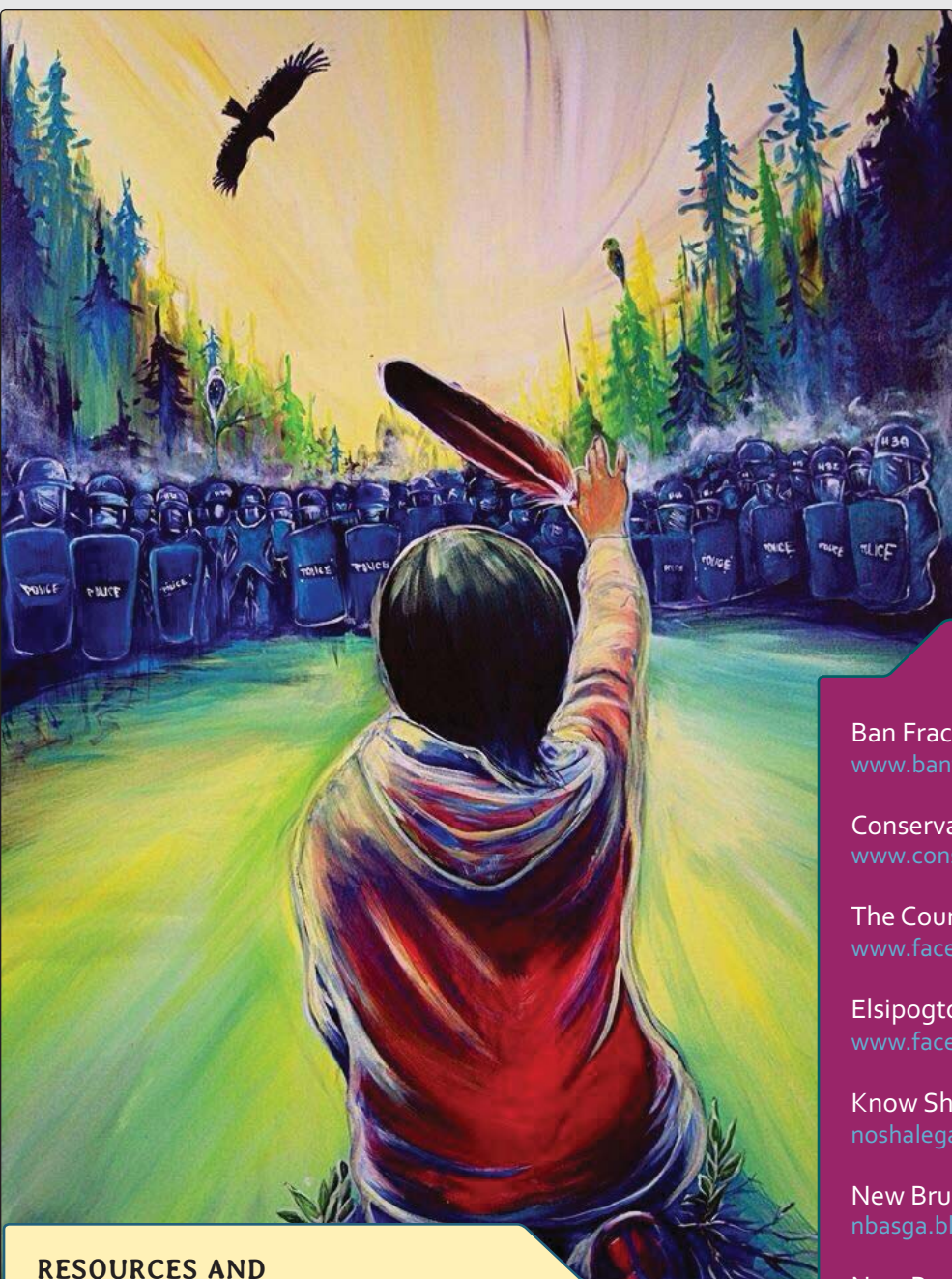
Despite claims by Environment Minister Bruce Fitch that the focus of the government's blueprint was on safeguarding air and water, and "to ensure that the industry can evolve in an environmentally safe manner," few lands are protected from the possibility of fracking – not even wetlands.<sup>24</sup>

22 [www2.gnb.ca/content/dam/gnb/Corporate/pdf/ShaleGas/en/ThePathForward.pdf](http://www2.gnb.ca/content/dam/gnb/Corporate/pdf/ShaleGas/en/ThePathForward.pdf)

23 [www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/Recommendations\\_ShaleGasDevelopment.pdf](http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/Recommendations_ShaleGasDevelopment.pdf)

24 [www.cbc.ca/news/canada/new-brunswick/don-t-worry-about-seismic-testing-in-wetland-alward-says-1.1341294](http://www.cbc.ca/news/canada/new-brunswick/don-t-worry-about-seismic-testing-in-wetland-alward-says-1.1341294); [www.conservationcouncil.ca/wetlands-taking-a-blasting/](http://www.conservationcouncil.ca/wetlands-taking-a-blasting/)





The New Brunswick government will likely continue to see ongoing protests against its pro-industry stance, which is at odds with many people in the province who say that fracking brings too many risks.

This image, by Fanny Aishaa, is a reimagination of an original photo by Ossie Michelin / APTN. The woman depicted is Amanda Polchies, protecting unceded Mi'kmaq land and water from fracking.

### GROUPS WORKING ON FRACKING

Ban Fracking NB  
[www.banfrackingnb.ca](http://www.banfrackingnb.ca)

Conservation Council of New Brunswick  
[www.conservationcouncil.ca](http://www.conservationcouncil.ca)

The Council of Canadians Fredericton Chapter  
[www.facebook.com/groups/196759017153089/](http://www.facebook.com/groups/196759017153089/)

Elsipogtog Warrior Society  
[www.facebook.com/groups/265528243458534/](http://www.facebook.com/groups/265528243458534/)

Know Shale Gas NB  
[noshalegasnb.ca](http://noshalegasnb.ca)

New Brunswick Anti-Shale Gas Alliance  
[nbasga.blogspot.ca/](http://nbasga.blogspot.ca/)

New Brunswick Environmental Network Shale Gas Caucus  
[www.nben.ca/en/collaborative-action/caucuses/shale-gas-caucus](http://www.nben.ca/en/collaborative-action/caucuses/shale-gas-caucus)

Sierra Club Atlantic  
[atlantic.sierraclub.ca](http://atlantic.sierraclub.ca)

Upriver Environment Watch  
[upriverenvironmentwatch.com](http://upriverenvironmentwatch.com)

Water and Environmental Protection for Albert County  
[protectalbertcounty.wordpress.com](http://protectalbertcounty.wordpress.com)

### RESOURCES AND REGULATIONS

Ownership and Surface Access and Oil and Gas Legislation  
[www.gnb.ca/0078/minerals/ONG\\_Introduction-e.aspx](http://www.gnb.ca/0078/minerals/ONG_Introduction-e.aspx)

Water Supply Source Assessment Permit  
[www2.gnb.ca/content/gnb/en/services/services\\_renderer.201100.Water\\_Supply\\_Source\\_Assessment\\_Permit.html](http://www2.gnb.ca/content/gnb/en/services/services_renderer.201100.Water_Supply_Source_Assessment_Permit.html)

Chief Medical Officer of Health's Recommendations Concerning Shale Gas Development in New Brunswick  
[www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/Recommendations\\_ShaleGasDevelopment.pdf](http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/Recommendations_ShaleGasDevelopment.pdf)



## Prince Edward Island

The province's Department of Finance, Energy and Municipal Affairs regulates fracking in the province. As of November 2013, there are currently no fracking operations. However, some experts believe there is a potential of 7.6 trillion cubic feet of coal bed methane in the ground on P.E.I., meaning up to 40 per cent of the province could be exposed to fracking.

The process for issuing exploration rights in the province starts with a company petitioning the Minister of Energy. There is a competitive bidding process that can result in the Minister giving a permit for six years, with an extension period of up to two years. Once the permit is approved, the government has no control over what process of exploration or drilling (including fracking) the company uses. The company also needs agreement from the landowner.

### GROUPS WORKING ON FRACKING

The Council of Canadians Atlantic Regional Office  
[www.canadians.org/fracking](http://www.canadians.org/fracking)

Don't Frack PEI  
[www.dontfrackpei.com](http://www.dontfrackpei.com)

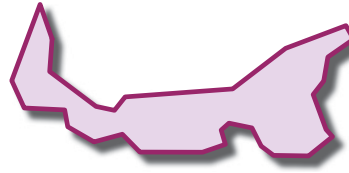
PEI Against Fracking  
[facebook.com/groups/224894730870301](https://facebook.com/groups/224894730870301)

Sierra Club Atlantic  
[atlantic.sierraclub.ca](http://atlantic.sierraclub.ca)

### RESOURCES AND REGULATIONS

Department of Finance Energy and Municipal Affairs  
[www.gov.pe.ca/energy/index.php3?number=1029909&lang=E](http://www.gov.pe.ca/energy/index.php3?number=1029909&lang=E)

Department of Environment, Labour and Justice - Issues water approvals  
[www.gov.pe.ca/environment/index.php3?number=78023&lang=E](http://www.gov.pe.ca/environment/index.php3?number=78023&lang=E)



There were a number of exploration permits for natural gas that expired in December 2012, and right now there are no active permits on the

island. Companies that had permits included Corridor Resources Inc. and PetroWorth Resources. An exploratory fracked well near Green Gables in 2007<sup>25</sup> – one of six wells that have been fracked in the province – resulted in a broken pipeline in 2007. While the spill of radioactive material was small, it underscores the pipeline safety risks of fracking.

Residents in the province have joined together to form a diverse coalition under the banner "Don't Frack PEI." The coalition highlights the serious risks fracking poses to groundwater in the island province. Coalition members are engaging in a series of public meetings to raise awareness and build support for a province-wide ban on fracking. In response to a questionnaire sent to PEI's Minister of Energy, the P.E.I. government promised to conduct public consultations if land is leased for exploration purposes. In November 2013, the Standing Committee on Agriculture, Forestry, Environment and Energy recommended a moratorium on high-volume hydraulic fracturing in the province.

25 [www.corridor.ca/oil-gas-exploration/prince-edward-island.html](http://www.corridor.ca/oil-gas-exploration/prince-edward-island.html)



Fracking occurred near Great Gables in Cavendish in 2007. Photo by Wikipedia user Chensiyuan, CC BY-SA 3.0

## The Canadian government and fracking

Regulation for fracking falls largely to the provinces because of their power to issue drilling and water permits. Although former federal Environment Minister Peter Kent has admitted to having the ability to stop fracking, the Canadian government has largely remained silent on the issue. However, the federal government has a responsibility to regulate fracking under the National Pollutant Release Inventory, as well as federal legislation such as the Fisheries Act, the Species at Risk Act, and the Canadian Environmental Protection Act.

However, the Harper government's omnibus budget bills, passed in 2012, weakened several pieces of environmental legislation, essentially greasing the wheels for the oil and gas industry to push through projects without federal oversight. In fact, access to information requests even showed that the scaling back of environmental legislation was made at the request of industry.<sup>26</sup>

Changes to the Canadian Environmental Assessment Act resulted in the cancellation of 3,000 project reviews across the country, some of which were fracking projects or applications related to fracking. One cancelled review was for an application from energy company Encana that requested permission to withdraw 10 million litres of water per day – roughly the same amount of water used by 30,000 people – from Fort Nelson River for its fracking project. The project will seriously impact the river, which the Fort Nelson First Nations depend on. It has been fervently opposed by the community.

Bill C-45, the second omnibus budget bill, abolished the Hazardous Materials

Information Review Commission (HMIRC) and transferred the commission's responsibilities to the Minister of Health. The HMIRC was an independent agency that safeguarded worker safety by assessing compliance with the Workplace Hazardous Materials Information System. It played a key role in educating workers about health and safety risks, safe handling, proper storage, transportation and disposal of hazardous materials. The arms-length agency also reviewed requests from companies to keep chemical names and quantities as trade secrets. The Council of Canadians raised concerns about the impacts that abolishing the HMIRC would have on the disclosure of fracking chemicals.

The federal government must also regulate fracking under its obligation to uphold the human right to water and sanitation. In July 2010, the United Nations General Assembly passed a resolution recognizing the human right to water and sanitation. The UN Human Rights Council has also passed resolutions outlining governments' obligations concerning the right to water and sanitation. This right is now enshrined in international law and all countries must ensure its implementation.

In the past, the Canadian government had consistently denied that the human right to water and sanitation even existed. But at the 2012 Rio+20 UN Conference on Sustainable Development, Minister Kent finally conceded that the human right to water not only exists, but that it is integral to the right to an adequate standard of living under the International Covenant on Economic, Social, and Cultural Rights. Catarina de Albuquerque, the UN's special rapporteur on the human right to safe drinking water and sanitation, wrote specifically about fracking and its relationship to the human right to water during her visit to the United States in 2011. De Albuquerque's U.S. report notes the concerns raised about the impacts of fracking on water and recommends that countries need to take "a holistic consideration of the right to water by factoring it into policies having an impact on water

<sup>26</sup> [www.theglobeandmail.com/news/politics/pipeline-industry-pushed-environmental-changes-made-in-omnibus-bill-documents-show/article8894850/](http://www.theglobeandmail.com/news/politics/pipeline-industry-pushed-environmental-changes-made-in-omnibus-bill-documents-show/article8894850/); [www.theglobeandmail.com/news/politics/fisheries-act-change-guided-by-industry/article13606358/](http://www.theglobeandmail.com/news/politics/fisheries-act-change-guided-by-industry/article13606358/)



quality, ranging from agriculture to chemical use in products to energy production activities."

Fracking projects are happening in Indigenous communities, some of which are already struggling with access to clean and safe drinking water. At any given time, there are more than 100 First Nation communities under water advisories due to poor water quality. The environmental assessments cancelled under the Canadian Environmental Assessment Act, and the 99 per cent of lakes and rivers that are left unprotected under the new Navigation Protection Act, will only exacerbate violations of the human right to water.

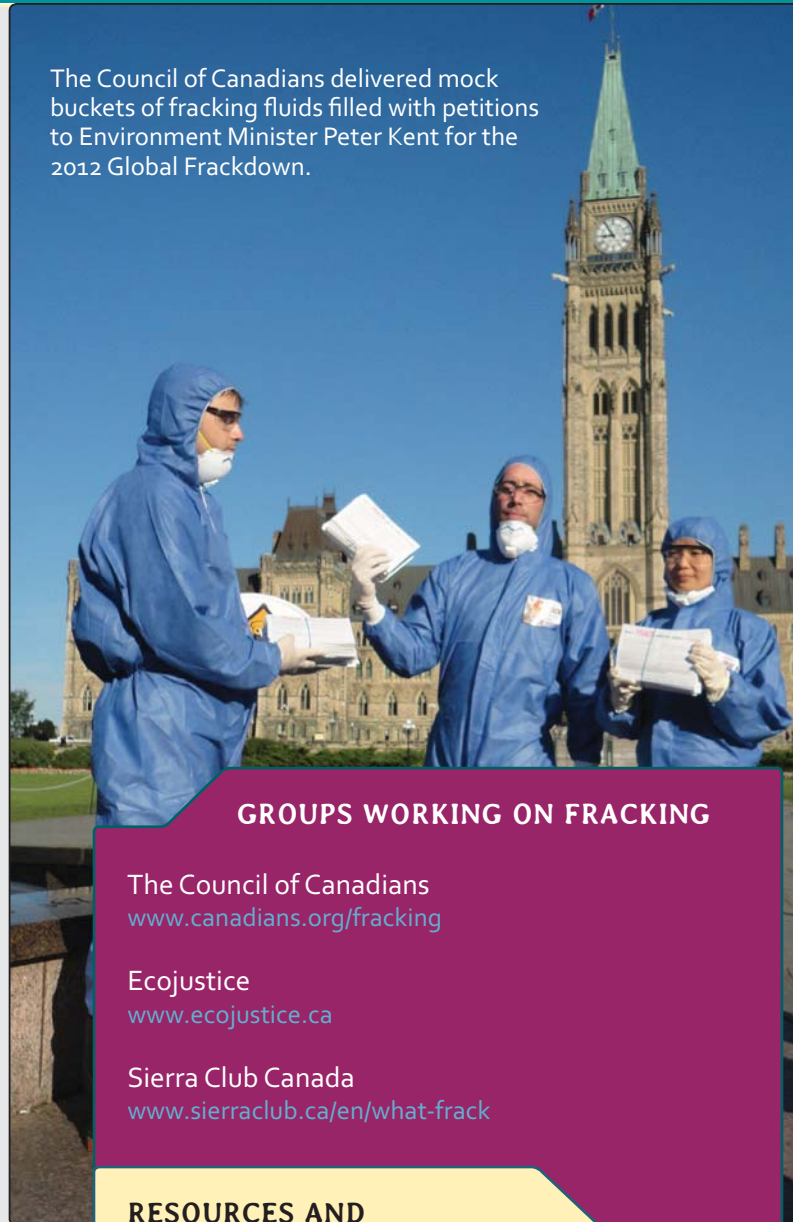
The federal government has initiated federal reviews on fracking through Environment Canada and the Council of Canadian Academies. However, Environment Canada sent a heavily redacted and incomplete plan when the Council of Canadians submitted an access to information request to obtain details about the review. The document shows that Environment Canada's review relies on industry information, which calls the integrity of the review's results into question.

The UN Declaration of the Rights of Indigenous Peoples, which the Canadian government endorsed in 2010, requires that governments obtain "free, prior and informed consent" for projects impacting Indigenous lands and other resources, including water sources. Given that many fracking projects are happening in Indigenous communities, the federal government must ensure that it has the free, prior and informed consent of those Indigenous communities.

The federal government has a clear and pressing responsibility to intervene in fracking projects across the country. The impacts of fracking are already being seen, and will continue to be seen for many years to come.

The federal government needs to take a leadership role and ensure that our water sources, people's health and the environment are protected from unnecessary and dangerous pollution.

The Council of Canadians delivered mock buckets of fracking fluids filled with petitions to Environment Minister Peter Kent for the 2012 Global Frackdown.



#### GROUPS WORKING ON FRACKING

The Council of Canadians  
[www.canadians.org/fracking](http://www.canadians.org/fracking)

Ecojustice  
[www.ecojustice.ca](http://www.ecojustice.ca)

Sierra Club Canada  
[www.sierraclub.ca/en/what-frack](http://www.sierraclub.ca/en/what-frack)

#### RESOURCES AND REGULATIONS

Environment Canada  
[www.ec.gc.ca](http://www.ec.gc.ca)

Natural Resources Canada  
[www.nrcan.gc.ca/home](http://www.nrcan.gc.ca/home)

National Energy Board  
[www.neb-one.gc.ca/clf-nsi/index.html](http://www.neb-one.gc.ca/clf-nsi/index.html)

Ecojustice's analysis of Bill C-45 and the Navigable Waters Protection Act  
[www.ecojustice.ca/files/nwpa\\_legal\\_backgrounder\\_october-2012/](http://www.ecojustice.ca/files/nwpa_legal_backgrounder_october-2012/)

Ecojustice's analysis of changes to the Fisheries Act  
[www.ecojustice.ca/files/fisheries-act](http://www.ecojustice.ca/files/fisheries-act)

### The Great Lakes

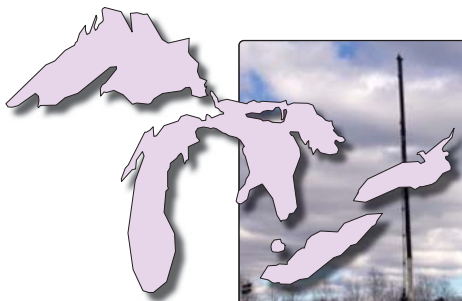
In the United States there are eight states - Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania and New York - that are either actively fracking, or considering it. The shale formations in the Great Lakes Basin are the Marcellus Shale, the Utica Shale, Collingwood Shale and the already-fracked Antrim Shale.

While there are no natural gas deposits in Wisconsin and Minnesota, both states are being mined for silica sand, which is formed by pieces of crystalline silica and is an ideal form of sand for fracking companies. However, mining for silica sand has raised concerns with residents because of the large amounts of water needed for the mining process and the health hazards caused by exposure to crystalline silica.

Despite strong opposition from groups and residents, Illinois recently gave the green light to restart fracking operations in June 2013 by passing new regulations. Fracking proponents have hailed Illinois' regulations as "the strictest in the country." Illinois will be the first U.S. state to require fracking companies to disclose chemicals used before and after the drilling process.

In Indiana, most of the fracking that has occurred has been in the southern part of the state with the exception of Steuben County in the northeastern corner of the state. Terre Haute recently banned fracking within city limits.

Michigan may soon become the state with the most fracking within the Great Lakes Basin. Encana has proposed withdrawing 15 billion litres of water from local watersheds in Kalkaska County in order to drill 500 new fracking wells in northern Michigan.



Fracking site in Kalkaska County, Michigan, the centre of fracking in the Great Lakes Basin. Photo courtesy of [respectmyplanet.org](http://respectmyplanet.org)

Ohio and Pennsylvania are Great Lakes states with a significant amount of fracking, but most of the fracking within these states occurs outside of the Great Lakes Basin.

New York State has had a de facto fracking moratorium for roughly five years. Governor Andrew Cuomo continues to delay making a decision on the matter, stating he is waiting for a decision from the state's Health Commissioner, Dr. Nirav Shah. The movement to ban fracking in the state has gained a lot of momentum with frequent rallies, strong coalitions like New Yorkers Against Fracking, and celebrity endorsements from Sean Lennon and Mark Ruffalo.

While companies are prohibited from withdrawing water from the Great Lakes for fracking, companies like Encana are drawing groundwater that feed rivers in the Great Lakes Basin.

In Canada, Enbridge Gas Distribution and Union Gas are petitioning the Ontario Energy Board for new and expanded natural gas infrastructure in the Greater Toronto Area.

If the application is approved, millions of people in Ontario will be relying on imported fracked gas from the U.S. Marcellus shale by 2015.

The approval could open the door to more fracking of the Marcellus shale posing serious risks to the Great Lakes Basin with massive water withdrawals, potential water contamination and pipeline leaks and hazardous waste risks.

A bill is before the Quebec legislature that – if passed – would result in a moratorium on fracking in the Lowlands of the St. Lawrence River for up to five years. While opposition parties are withholding their support, groups are still urging the Quebec government to pass a ban throughout the province. Even if the bill passed, it would not stop shale oil exploration in the less densely populated Anticosti Island at the mouth of the St. Lawrence River. Quebec is also at the centre of a \$250 million NAFTA lawsuit launched by Lone Pine Resources a company whose permits in the St. Lawrence Valley were revoked in 2011.

(For more information see the [Ontario](#) and [Quebec](#) sections.)

## LIST OF INDIGENOUS COMMUNITIES AND GROUPS IN THE GREAT LAKES BASIN

United Tribes of Michigan (no website)

Union of Ontario Indians  
[www.anishinabek.ca](http://www.anishinabek.ca)

Chiefs of Ontario  
[www.chiefs-of-ontario.org](http://www.chiefs-of-ontario.org)

Association of Iroquois and Allied Indians  
[www.aiai.on.ca/about/about-us.aspx](http://www.aiai.on.ca/about/about-us.aspx)

Southern First Nations Secretariat  
[www.sfns.on.ca](http://www.sfns.on.ca)

## GROUPS WORKING ON FRACKING

Committee to Ban Fracking in Michigan  
[letsbanfracking.org](http://letsbanfracking.org)

The Council of Canadians Ontario-Quebec-Nunavut Regional Office  
[www.canadians.org/fracking](http://www.canadians.org/fracking)

Food & Water Watch  
[www.foodandwaterwatch.org](http://www.foodandwaterwatch.org)

FLOW  
[flowforwater.org](http://flowforwater.org)

Sierra Club Illinois  
[illinois.sierraclub.org](http://illinois.sierraclub.org)

Southern Illinoisans Against Fracturing our Environment  
[www.dontfractureillinois.net](http://www.dontfractureillinois.net)

(Also see list of groups in [Ontario](#) and [Quebec](#).)

## RESOURCES AND REGULATIONS

Municipal resolutions in the Great Lakes states and the rest of the U.S.  
[www.foodandwaterwatch.org/water/fracking/fracking-action-center/local-action-documents/](http://www.foodandwaterwatch.org/water/fracking/fracking-action-center/local-action-documents/)

FLOW's ordinance program  
[flowforwater.org/programs/fracking/](http://flowforwater.org/programs/fracking/)

Food & Water Watch activist tools  
[www.foodandwaterwatch.org/water/fracking/fracking-action-center/activist-tools/](http://www.foodandwaterwatch.org/water/fracking/fracking-action-center/activist-tools/)

Tribal and First Nations Great Lakes Water Accord  
[www.nofnec.ca/PDF/Presentations/Tribal-and-First-Nations-Great-Lakes-Water-Accord.pdf](http://www.nofnec.ca/PDF/Presentations/Tribal-and-First-Nations-Great-Lakes-Water-Accord.pdf)

Great Lakes St. Lawrence Cities Initiative's resolution on Shale Gas Exploration, Extraction and Treatment Activities and the Role of Local Government  
[www.glsccities.org/annual-meetings/2012/2012%20GLSLCI%20Approved%20Resolutions.pdf](http://www.glsccities.org/annual-meetings/2012/2012%20GLSLCI%20Approved%20Resolutions.pdf)



### Fracking internationally: Communities around the world call for fracking bans

Fracking is spreading like wildfire, not only in Canada, but also all over the world. Yet growing alongside the rapidly expanding industry is a grassroots movement to ban fracking and protect water sources, public health and the environment.

The United States has one of the largest shale gas reserves and is leading the fracking boom. Companies like Encana are breaking records with the amount of water used for fracking operations from the Great Lakes Basin.

In August 2013, Americans Against Fracking – a coalition of environmental and consumer organizations – delivered 650,000 public comments calling for a ban against fracking on public lands. In May 2012 Vermont became the first state to ban fracking. There have been local measures to stop fracking passed in 20 states, including California, Michigan, New Jersey, Ohio, Pennsylvania and Virginia. The Haudenosaunee Environmental Task Force and the Turtle Mountain Band of Chippewa have also instituted bans. New York State has been a hotbed of activity in the fight to ban fracking with frequent rallies and the creation of a 230 member coalition “New Yorkers Against Fracking.”

In Mexico, fracking is underway with a few exploration wells along the U.S. border. While the Mexican government controlled energy provision in the country for decades, in December 2013, it passed law reforms that encourage the participation of private companies. Fracking proponents often argue that without private sector participation, Mexico will not be able to take advantage of its shale gas reserves.

The Alianza Mexicana contra el Fracking was launched in August 2013, creating a coalition



2012 Global Frackdown event in front of the European Parliament in Brussels where “fracking fluid” was served to everyone. Photo courtesy of Food and Water Watch

of 16 environmental, consumer and human rights organizations, including the Council of Canadians’ Blue Planet Project. The coalition is calling for a fracking ban.

In Europe, France and Bulgaria have banned fracking, while Ireland, the Czech Republic, Denmark and North Rhine-Westphalia state in Germany have implemented moratoriums. German brewers made international headlines this spring when they warned that fracking could harm the beer industry.

Romania’s government is reconsidering the future of fracking in the country. Romanians have held frequent and fervent protests against the practice, and Bulgarians crossed the border in June 2013 to join their neighbours in calling for a ban. Thousands have protested outside of government buildings. In October 2013, 600 farmers, joined by priests, formed a human chain and occupied a field that Chevron is trying to frack. Strong community opposition in Europe, coupled with the myth of a natural gas glut driving down prices in the U.S., has slowed shale gas development in some parts of Europe. Although Poland is estimated to have

one of the largest unconventional gas reserves in Europe, gas companies have recently gotten cold feet, casting doubt on the future of fracking there.

Despite community protests, South Africa recently gave the green light to fracking companies by lifting a moratorium on fracking that had been in place since April 2011.

China has a high number of shale gas reserves and has moved full steam ahead with fracking. Concerns were raised recently when gas companies began fracking in Sichuan, an earthquake-prone province in southwestern China. The threats fracking poses to water and public health are compounded in China given the country's existing water crisis. Nearly half of China's rivers are so polluted they are unfit for drinking.

There is currently no fracking in the U.K. but companies are busy submitting applications for shale gas and coal bed methane projects. The British government suspended fracking after earthquakes linked to fracking made international headlines in 2011. The government has since lifted the moratorium and is readily approving applications. However, protesters have been successful in slowing down Cuadrilla Resources, a British company attempting to spearhead the shale gas and oil rush in the U.K. The company announced that it was withdrawing from two key sites in the fall of 2013 following a summer of legal challenges and fervent protests that included 1,000 people camping out at a Balcombe drilling site in West Sussex. Protesters are continuing to demand a ban on fracking and set up camp at the headquarters of West Sussex County Council in November 2013.

Communities around the world are joining a global call to ban fracking as part of the annual "Global Frackdown." During the first Global Frackdown, which was held in September 2012, more than 200 community actions in more than 20 countries challenged fracking and its

negative impacts on water, the environment and public health. The 2013 Global Frackdown, held on October 19, was an even bigger success with more than 250 actions in 30 countries. Communities around the world organized rallies, street theatre actions, and held meetings with politicians – all as part of the call for a global ban on fracking.

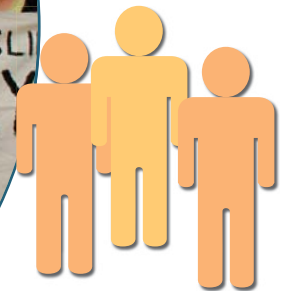


# What You Can Do to Stop Fracking in Your Community

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Governments to Act  
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## Case Studies

### GOVERNMENTS RESPOND: LOCAL AND REGIONAL FRACKING BANS AND MORATORIUMS

The list of towns, cities, regions and states halting fracking continues to grow as the global anti-fracking movement gets stronger. In May 2013, Vermont became the first American state to ban fracking. Hundreds of U.S. cities and towns have responded to the groundswell of well-organized opposition by enacting moratoriums and bans, including in California, New York, Illinois, Colorado and Ohio. Notably, a New Mexico county ban also establishes a “bill of rights” for residents and for nature. This bill of rights prohibits activities – like fracking – that undermine the county’s rights to fresh water, public health, safety and environmental protection. The bill of rights directly challenges corporate rights.

In Canada, Quebec has a moratorium on fracking in the St. Lawrence Valley that was spurred by a massive groundswell of grassroots opposition led by local landowners. Nova Scotia, also home to a strong grassroots movement that includes the NOFRAC coalition, effectively has a moratorium. In August 2013, the Nova Scotia government announced it would scrap its internal review and instead conduct an independent review through 2014, during which time no new approvals would be issued. There are a number of ongoing campaigns targeting fracking locally and provincially – including the Council of Canadians Inverness Chapter’s campaign that resulted in the first Canadian municipal bylaw banning fracking.



Quebec organizations organize a rally in Drummondville for the 2012 Global Frackdown. Photo by Didier PH Martin

### Quebec’s successful resistance to shale gas development

The list of achievements of the Quebec movement against fracking is long and impressive: more than 130,000 people signed an online petition, over 100 citizens groups formed over the span of three years, 50 people walked 700 kilometres along the St. Lawrence River from Rimouski to Montreal, 60 municipalities passed bylaws that protected drinking water from fracking, and more than 300 hundred people have been trained for non-violent direct action.

In a two-part series, “Civil resistance as deterrent to fracking,” Philippe Duhamel, Quebec civil resistance organizer, sheds light on the successes and challenges of Quebec’s anti-fracking movement. Duhamel explains what happened when communities found out that industry was planning to start fracking in the St. Lawrence Valley: “Citizens from rural areas soon found each other and started organizing. Artists and celebrities, some of whom owned properties in targeted areas, got involved. They helped further alert and mobilize public opinion through a viral video. An online petition gathered 130,000 names. Experienced activists informed by civil resistance theory and practice (including this author) felt compelled to join, moved by the outrage they felt, and what they feared might happen.”



La Campagne Moratoire d'une Generation (One-Generation Moratorium Campaign), for which Duhamel is the volunteer coordinator, insisted on going beyond "a generic moratorium" and aimed "to build a capacity for mass civil disobedience." They gave the Quebec government an ultimatum: a 20-year moratorium on fracking by May 1, 2011 or a mass nonviolent action would take place.

Duhamel explains, "One of the highlights of the One-Generation Moratorium Campaign, and one for which it is most remembered, is the month-long walk it organized in the spring of 2011 along an itinerary closely following the areas claimed for fracking by the industry. The press followed us closely, with national media at the start, middle and end points. The walk was the event of the day in rural towns. It would usually open the news, with the weather forecast sometimes closing with what the day would be like for the walkers. In cities like Trois-Rivières and Quebec City, the march through downtown would bring out hundreds, marching with the fanfare and swaying with the samba band. When we finally reached Montreal, a crowd of some 10,000 to 15,000 people awaited – the largest environmental demonstration in Quebec history at the time – our allies having finally come together to celebrate."

He adds, "Using traditional community organizing methods, the Regroupement [Interegional Gaz de Schiste Vallée du St-Laurent] canvassed rural communities, asking residents to sign a letter refusing access to the industry, and selling the highly visible red and yellow 'Non au gas de schiste' signs that now dot villages and rural roads across Quebec. Over 30,000 property owners have signed the letter. With signature rates sometimes reaching as high as 90%, the organizers brought to city hall maps showing the supportive properties painstakingly coloured one by one. Many municipal governments were swayed. Bylaws specifically designed to protect drinking water sources from the industry drilling were adopted in over 60 towns."

Groups established an early warning system, which could be reached at SCHISTE911.org or 1-888-SCHISTE to warn communities about further threats of fracking.

Duchamel explained, "Eyes and ears in the community, watching remotes sites, important intersections and back roads, paying attention to rumours and talking with strangers can provide important, timely information. It is the first and vital step in the system. This kind of surveillance network doesn't always have to be built from scratch. In New Brunswick, Neighbourhood Watch and Block Parent homes were enlisted to signal to protesters the presence of thumper trucks, used for seismic testing."

He also stresses "the concept of preventative action rests on one paramount priority: to train communities in nonviolent direct action and civil disobedience. To reinforce their intended effect as a deterrent for the industry, the trainings themselves are publicized."

While there is a defacto moratorium in the St. Lawrence Valley, shale oil exploration is planned for Anticosti Island and the Gaspé Peninsula for 2014. However, if industry and government learned anything from past resistance in Quebec, they have quite a fight on their hands.

## LEARN MORE

Civil resistance as deterrent to fracking: Part One, They shale not pass  
[www.opendemocracy.net/civilresistance/philippe-duhamel/civil-resistance-as-deterrent-to-fracking-part-one-they-shale-not-o](http://www.opendemocracy.net/civilresistance/philippe-duhamel/civil-resistance-as-deterrent-to-fracking-part-one-they-shale-not-o)

Civil resistance as deterrent to fracking: Part Two, Shale 911  
[www.opendemocracy.net/civilresistance/philippe-duhamel/civil-resistance-as-deterrent-to-fracking-part-two-shale-911](http://www.opendemocracy.net/civilresistance/philippe-duhamel/civil-resistance-as-deterrent-to-fracking-part-two-shale-911)



## FRANCE BANS FRACKING

In 2011, France was the first country to ban fracking for shale gas. French President François Hollande promised in July 2013 to uphold France's ban during his presidency despite ongoing legal challenges from Schuepbach Energy and Total, a company that previously had exploration permits. The ban came in response to growing public opposition and anti-fracking events including screenings of the documentary *Gasland*, townhall meetings, massive demonstrations and the posting of anti-fracking billboards across the country.

### Behind the French ban – Successes and challenges

*An interview with French fractivist Maximes Combes*

A strong citizens' campaign in France helped stop fracking. The French campaign, which resulted in Europe's first ban, started in late 2010.

In March 2010, residents of France found out that the government had given – without any public consultation – permits for fracking on three sites. When they learned that 64 other licences were pending, local citizens formed groups in affected areas. This quickly led to the organization of town-hall meetings in villages that attracted unprecedented numbers of people. In early 2011, a massive citizens' movement began to form, with a landmark public demonstration in February that brought together strong local networks that quickly succeeded in compelling local authorities to take an anti-fracking stance. The national government, unprepared for such an uproar, was caught by surprise. France's government initially issued a moratorium, but after further

public pressure, Parliament enacted a law banning fracking in July 2011.

Two factors helped ensure this success. First, politically, the anti-fracking movement effectively combined spontaneous and passionate local protests with challenges at a national level on legal grounds pinpointing irregularities based on French land and water legislation. Second, the movement benefited from a strong sense of community and attachment to the land, which framed the campaign in terms of democracy and sovereignty over land.

Industry has not surrendered. After the ban was enacted fracking companies started to use the law's loopholes, asking, for example, for permits for "stimulating bedrock," exploiting the fact that the law does not properly define fracking. Companies have also invested in a far-reaching public relations campaign that promotes fracking and uses the terms "energy independence" and "job opportunities" as selling points.

In this new phase of struggle, facing a long-term information war with the unconventional gas industry, the anti-fracking campaign faces several challenges besides being short of funding, political power and spokespeople. First, the new proposed sites for fracking are in more urban, northern regions of France where people are less locally rooted and attached to their land. There are also divisions emerging as the movement has broadened around issues such as alternative energy models, with differing positions on nuclear power, for example.

**ADAPTED FROM:** Transnational Institute's Old Story, New Threat: Fracking and the global land grab  
[www.tni.org/sites/www.tni.org/files/download/fracking\\_old\\_story\\_new\\_threat\\_o.pdf](http://www.tni.org/sites/www.tni.org/files/download/fracking_old_story_new_threat_o.pdf)





## GRASSROOTS RISING

The global anti-fracking movement is continuing to expand and grow. Screenings of documentaries such as *Gasland*, rallies, coalitions, and campaigns to ban fracking are all underway. The movement is also engaging in more direct actions – people are literally putting their bodies in the way of fracking projects.

In September 2011, a group of Indigenous women, members of the Blood (or Kainai) Nation in Alberta, blocked a road leading to a Murphy Oil fracking site located on their reserve. Lois Frank, Elle-Maija Apiniskim Tailfeathers and Jill Crop Eared were arrested for their actions to protect their land and water against fracking. More than one year later, charges against the women were stayed in court. Their brave efforts brought international attention and support to their fight.

In the summer of 2013, the Elsipogtog First Nation of New Brunswick and its supporters established a camp and have peacefully stopped and confiscated drilling equipment contracted by Southwestern Energy for seismic testing for fracking. In October 2013, the RCMP – who had been present at the camp throughout the summer – moved in on the protesters with riot gear, snipers and pepper spray. Media accounts focused on the burning RCMP cars and the Molotov cocktails that were thrown, but it is important to focus on why the protesters are there: to protect the water, land and people. There was an outpouring of support with more than 45 solidarity actions organized in the two days following the RCMP actions. Many Global Frackdown events, which were scheduled two days after the RCMP moved in, were focused on expressing solidarity with the Elsipogtog in their fight against fracking.



## Lessons learned from New York State's anti-fracking movement

The movement to ban fracking in New York State has been one of the strongest and most vocal across the U.S. In addition to the state-wide moratorium, New York municipalities have passed more than 200 local measures against fracking, by far the most passed in any one state in the U.S. The Haudenosaunee Environmental Task Force, which includes the Mohawk, Oneida, Onondaga, Cayuga and Seneca Nations, passed a ban against fracking on, or near, their aboriginal territory. The N.Y. Department of Environmental Conservation received close to 200,000 public comments on its draft regulations for fracking, the bulk of which called for an outright ban on fracking. The movement has gained a near unparalleled momentum with the creation of New Yorkers Against Fracking, a coalition with 230 member organizations, frequent rallies and well attended marches, and celebrity endorsements from musician Sean Lennon and actor Mark Ruffalo.

The success of the anti-fracking movement in New York can be attributed to many factors. However, for Alex Beauchamp, Northeast Regional Organizer for Food and Water Watch, a member organization of New Yorkers Against Fracking, there are key factors that have led to the movement's success so far. The movement was largely driven by the grassroots – with a local group in almost every town from the get-go. The unwavering political target of New York Governor Andrew Cuomo also contributed to the coalition's success. Governments will often pass off responsibility to departments or ministers, and the New York Governor is no different. However, the coalition's persistent and consistent demand of Governor Cuomo to ban fracking has so far succeeded in stopping fracking. What's often missing in the black-and-white "jobs versus environment" debate is the impact fracking has on human health. Testimonies and health studies resonated with New Yorkers as a central reason to ban fracking.



## Public Education and Building a Base

### How to build a coalition and encourage community participation

Building a coalition to fight fracking in your community is a great way to bring together like-minded people and organizations interested in or already working on fracking. Check the first section of this toolkit, or do an internet search for organizations in your community, province or territory that are already working on fracking.

*Here are some other tips on building a network of people to fight fracking:*

#### Use existing contacts

- The beginning of a community project – which is essentially what your fight is – starts with contacting like-minded individuals, groups and clubs such as naturalists, bird watchers, social justice organizations, landowners' associations, indigenous groups and well water users.
- Hold a meeting. Pull together a concerned citizens' committee, which can be a small group to start. Be upfront about the aims and concerns within the group. There might not be full agreement on what approach to take, but find common ground to work from.
- Assign urgent jobs such as finding a place for the first or regular meetings.
- Strategize quickly, and be open to ideas. Discuss what actions you will take, what politicians you will target, what methods you will use to educate the public, and what the group's goals are.
- Arrange for a first emergency public meeting.
- When you are informing people about the upcoming meeting talk to them briefly about the need to fight the project. Stick to credible facts and keep your arguments simple. Pick a few really strong ones such as fracking's impacts on drinking water or people's health.

#### Make new contacts

- At the meeting outline tasks and assign roles.
- Take advantage of social media: start a Facebook page or open a Twitter account and find a volunteer to take charge of these tools.
- Consider a website – one that is easy for volunteers to update, but with a professional look and feel.
- Set up information booths at events such as fairs, farmers' markets, public events, festivals, etc.
- Meet people from different backgrounds one-on-one to slowly expand the network. Check out Rabble.ca's How-To Guide on Coalition-building<sup>27</sup> and the Community Toolbox's article on Coalition Building<sup>28</sup>
- Once your coalition is established, hold some fun fundraisers or information events. Have dances, parties, barbecues, runs, tournaments, trivia nights, auctions – whatever works in your community for fundraising and building community opposition. This emphasizes community spirit, provides a pleasant place to discuss issues, and builds solidarity.

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27 [rabble.ca/toolkit/guide/coalition-building](http://rabble.ca/toolkit/guide/coalition-building)

28 [ctb.ku.edu/en/tablecontents/sub\\_section\\_main\\_1057.aspx](http://ctb.ku.edu/en/tablecontents/sub_section_main_1057.aspx)



## Petitions

There are specific ways petitions should be drawn up and signed. Petitions to be introduced in the House of Commons must follow these guidelines: [www.parl.gc.ca/about/house/practicalguides/petitions/petitionsPG2008\\_\\_Pgo2-e.htm](http://www.parl.gc.ca/about/house/practicalguides/petitions/petitionsPG2008__Pgo2-e.htm)

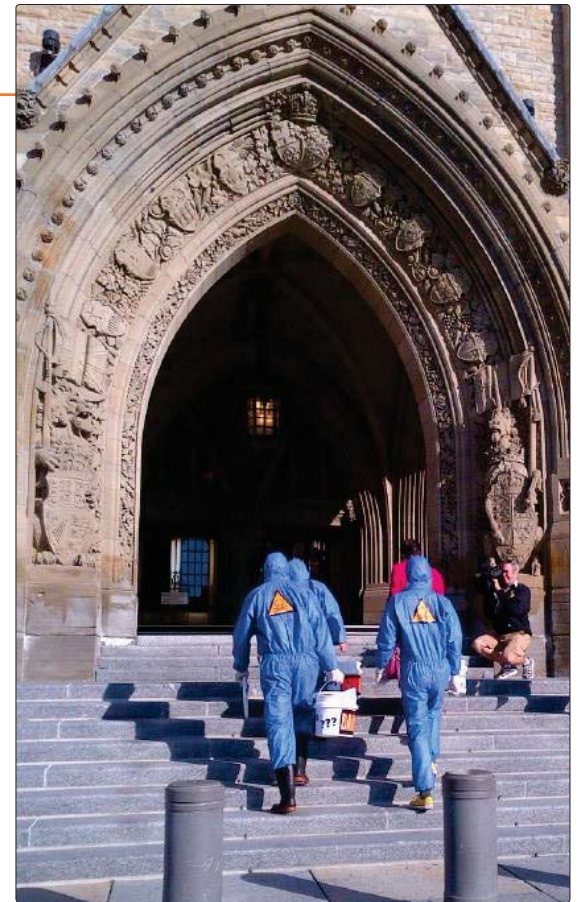
Visit your province or territory's website for guidelines on provincial or territorial petitions.

You could take it door-to-door in your neighbourhood, pass it around your workplace, take it to groups involved with the issues or who would agree with your point of view, visit local stores or businesses that might be supportive, and have it to sign at an event you are hosting on the issue. See these tips written for Council chapter activists: [www.canadians.org/chapters/documents/petition.pdf](http://www.canadians.org/chapters/documents/petition.pdf)

Present the petitions at the municipal, provincial and possibly federal levels, depending on the jurisdiction you are targeting. Get media attention by delivering the petitions in a creative way. For example, in 2012 as part of the first Global Frackdown, Council of Canadians staff members dressed in hazmat suits delivered buckets of "toxic fracking chemicals" (which were actually buckets filled with thousands of petitions addressed to then-federal Environment Minister Peter Kent).

Here are even more creative ideas: [beautifultrouble.org/tactic/creative-petition-delivery/](http://beautifultrouble.org/tactic/creative-petition-delivery/)

Mock buckets of fracking fluids filled with thousands of petitions calling for a ban on fracking.



Council of Canadians staff walking with NDP MP Megan Leslie to deliver fracking petitions for the 2012 Global Frackdown.





## Letters to the editor

A letter to the editor is a great way to get a message or information to a broader audience. Letters are read by community members, local politicians, decision makers and others and can be a great way to increase interest and support.

Here are five quick tips you can use to help get your letter published:

1. Have a “hook.” Is there something local happening on fracking that you can mention in your letter, such as a fracking company leasing land or submitting an application, or a recent news article that you can refer to? Newspapers are more likely to print letters that tie in with recent coverage or issues.
2. Keep it short. Keep your writing concise and snappy and get to the point. Good letters always begin with a strong opening (use your hook!), followed by information, facts or arguments to support it, and then a conclusion. Check to see if the newspaper has any word count guidelines – 200 to 300 words is usually what you want to aim for. A letter that is too long will not be used.
3. Be factual. If you are including facts about fracking, try to include where they came from. This will increase the credibility of your letter.
4. Include your contact information. Newspapers will always want to verify the authorship of letters. Be sure to include your phone number and email address when you send it in.
5. Try more than one paper. There is nothing wrong with trying to get published in more than one newspaper. Just be sure to tailor your letter to the publication – change your hook or add some new information – to increase your chances.

## Sample letters to the editor

*The following letter was published in The Camrose Canadian in May 2013.*

### Listening to Albertans on fracking

Dear editor,

Energy development in some form is critical in Alberta and there is wide consensus that associated risks must be minimized. We approach development and accept risks as a province and have gone ahead with hydraulic fracturing, but when our decisions impact individuals we often leave them to deal with the consequences on their own. Are we willing to compromise the livelihoods of some for the benefit of others? I believe that hearing the very human stories of those who have suffered unfairly will help us move toward a future we hope for.

Countless Albertans have important stories about energy development that have not been heard. The public discourse is controlled by a few entities that often do not leave space for landowners, farmers or other Albertans. Energy discussions in Alberta are incomplete. How can we create effective policy and regulation and make informed decisions without considering the impacts on Albertans?

Envision a province where everyone is heard, a place where city-dwellers and rural farmers alike are connected to their communities and to their land. There are many such stories to be told in Alberta, stories of richness and life. If your story of life in Alberta and energy development has not been heard, we want to help you share.

Visit [www.albertavoices.ca](http://www.albertavoices.ca) to hear your neighbours' stories and to learn how we can help make your voice part of the discussion on hydraulic fracturing and energy development. As U of A students and organizers of last fall's conference in Camrose, Responsibility for the Land: Conversations on Fracking in Alberta, we understand that there are sensitive issues, and in working with you, we hope to learn from your experiences and foster a friendly relationship.

Hans Asfeldt  
Camrose, AB





*The following letter to the editor was published in News North in May 2013.*

### Fracking research a must to reduce impact

Thank you for your balanced editorial on fracking in the May 6 edition of News North ("Onward and downward"). The issue of horizontal fracking, including the fracking of relatively shallow wells, will become a major issue in the NWT over the next few years, initially in the Sahtu region and then in the Deh Cho.

Water is essential to life. Depending on our age, between 50 to 70 per cent of our own bodies consist of water.

When probing for life on other planets, scientists look solely for any evidence of water. Because it is essential (some would say sacred), water must be considered a human right and a public, not private, resource.

Fracking is an industrial activity that uses large amounts of freshwater, contaminates that water and then allows a significant volume of that toxic water to remain in the ground, where it can interact with groundwater, flow through faults in the ground, and potentially re-enter our surface water system.

That is one reason why many jurisdictions have either banned or placed a moratorium on fracking. Other reasons include increased greenhouse gas emissions, significant disturbances to surface lands, and increased earthquake activity.

Yes, more research and conclusive science is needed to fully assess the risks and long-term environmental impacts and costs of fracking. Simply allowing companies to begin horizontal fracking in the Sahtu or other NWT regions on a trial basis is not adequate or appropriate. Proper assessments need to be done.

The whole point of environmental assessments and regulatory oversight is to ensure that required research is carried out, full disclosure of proposed industrial activities is made (including what chemicals are being used), potential risks are thoroughly assessed and mitigated, and effective monitoring and reporting procedures are put in place for identification and public disclosure of any problems that might arise.

Oil and gas companies operating in the NWT should not be resisting public oversight of their activities, including environmental assessments.

The oil and gas is not going anywhere, so proper research and planning before extracting it through fracking, to reduce negative impacts on our water and our lives, makes sense.

Peter Redvers, Co-chair, Council of Canadians, NWT chapter





*The following letter was published in The Guardian in March 2013.*

## Saying no to fracking

To the Editor,

The latest threat to P.E.I.'s drinking water is fracking. Fracking is short for hydraulic fracturing. It's a gas drilling technique that's an extremely water-intensive process where millions of litres of fluid – typically a mix of water, sand, and chemicals, including ones known to cause cancer – are blasted into shale rock beds at high pressure to fracture the rock surrounding a gas well. This fracking releases the gas from the rock so it can flow into the well.

The P.E.I. government is still seriously considering allowing fracking on P.E.I. This, despite the fact that fracking has already occurred at least once on P.E.I. with serious consequences. We know this because on Dec. 10, 2007 there was a fracking spill near Green Gables in Cavendish. The company responsible was Corridor Resources.

Fracking for gas on P.E.I. will put our drinking water in serious jeopardy. Our drinking water is already under huge stress from other contaminants.

Groundwater is our only source of drinking water. It must be protected.

There are hundreds of reports of drinking water contamination associated with fracking in the United States and Canada.

As well, there is documented evidence of fracking's severe impacts on human and animal health, the environment, and our climate – even small earthquakes.

At the moment, there are no active permits for oil and gas exploration on P.E.I. The leases held by Corridor Resources and other companies for almost 50 per cent of P.E.I. expired this past December. But that is most likely to change. Some experts believe there is a potential of 7.6 trillion feet of coal bed methane in the ground on P.E.I.

The process for issuing exploration rights on P.E.I. begins by an exploration company petitioning the minister of energy to offer for bid a particular area of P.E.I. The minister can give the permit for six years, with up to two years extension. Once the permit is approved, the government has no control over what process of exploration or drilling the company uses. It's a permit to frack away.

We need to protect our drinking water. We need a permanent legislated moratorium on fracking.

Leo Broderick  
The Council of Canadians and Don't Frack P.E.I.





## Social media

Social media, including Facebook and Twitter, are fast and efficient ways to get your message across, raise public awareness, and link people into what you are doing.

Twitter is a platform that allows you to send a short message (140 character limit), share news articles and update your followers. You can also get up-to-the-minute updates from politicians, organizations or companies, sometimes before it even gets reported on by media. Twitter is a great way to share online petitions about fracking in your community. To learn the basics of Twitter, check out Rabble's how to guide on Twitter ([rabble.ca/toolkit/guide/twitter](http://rabble.ca/toolkit/guide/twitter)) and how to live tweet an event ([rabble.ca/toolkit/guide/live-tweet-event](http://rabble.ca/toolkit/guide/live-tweet-event)).

Facebook is a social networking tool that allows you to connect with people already working on fracking and find new supporters to encourage to take action. You can share photos, updates and news articles and spread the word about community events to stop fracking. Here are some tips on how to use Facebook to raise awareness about fracking in your community: [www.movements.org/how-to/c/facebook-activism](http://www.movements.org/how-to/c/facebook-activism)

Check out this guide on how to organize an online campaign by Labour Notes that includes tips on building momentum for campaigns and online petitions by mobile phone, Twitter and Facebook: [rabble.ca/toolkit/guide/how-to-organize-online-campaign](http://rabble.ca/toolkit/guide/how-to-organize-online-campaign)

For more tips on how to enhance your use of social media, including tips on the perfect tweet, promoting your blog, a cheat sheet on Facebook, and how to use other social media sites such as Pinterest and StumbleUpon, visit: [pinterest.com/dylanpenner/social-media/](http://pinterest.com/dylanpenner/social-media/)





Here are some sample tweets you can adapt to fit your local campaign on fracking:



Sample tweets to support the Elsipogtog's protests:

#DavidAlward Don't #frack with our #water. I want a ban on #shalegas. #NBpoli #Elsipogtog #Elsipogtogsolidarity #oilandgas #swn

#DavidAlward Get #SWN out of #NewBrunswick #NBpoli #Elsipogtog #Elsipogtogsolidarity #shalegas #oilandgas #swn

#SWN Stay out of #NewBrunswick. #banfracking #Elsipogtogsolidarity

#DavidAlward Protecting the human #righttowater means banning #shalegas in #NewBrunswick. #banfracking #NBpoli #Elsipogtogsolidarity

#DavidAlward I don't want #fracking wastewater to leak in #NewBrunswick's lakes and rivers. #banfracking #Elsipogtogsolidarity #shalegas

#PremierAlward We want sustainable and ethical jobs in #NewBrunswick #NBpoli #Elsipogtog #Elsipogtogsolidarity #shalegas #oilandgas

#PremierAlward I want a future free from #fracking and dirty fossil fuels. #Elsipogtog #Elsipogtogsolidarity #shalegas #oilandgas

#DavidAlward, I want a ban on #fracking and creative solutions to transition off fossil fuels. #NBpoli

.@RCMPNB Your obligation is to protect the people. The world is watching. #Elsipogtogsolidarity #Elsipogtogsolidarity

## Talking points

As public concern over fracking grows, so too does industry spin. Here are some talking points to debunk industry myths about fracking.

× "Fracking has been used for decades."



Governments and industry representatives often say that fracking has been used as an extraction method for more than 60 years. However, the "older" type of fracking – known as vertical fracking – is much different than the new form of fracking – multi-stage, high pressure, horizontal fracking which has just developed over the last decade.

Horizontal fracking requires much more fluids, anywhere from 50 to 100 times more, which increases the risk of accidents.<sup>29</sup> It also requires that the toxic mix of chemicals, water and sand be blasted into the ground at higher pressures, which increases the risk for potential well, valve or pipe failures.

Government regulations have not caught up with this newer form of fracking. Cornell University professor and fracking expert Tony Ingraffea says that the impacts of fracking are cumulative and some effects may not be seen until decades later.

<sup>29</sup> [www.parl.gc.ca/HousePublications/Publication.aspx?DocId=4918403&Language=E&Mode=1](http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=4918403&Language=E&Mode=1)

✗ “There are no documented cases of water contamination.”



Governments and industry say there are no documented cases of water contamination. But governments do not regularly test water sources before and after fracking has occurred.

Fracking fluids contaminated groundwater in Grande Prairie, Alberta in September 2011. The Energy Resources Conservation Board conducted an investigation and released a report citing that the water table was fracked releasing 42 cubic metres of propane gas into an underground aquifer.<sup>30</sup>

In Dawson’s Creek, B.C. there have been accounts of sand, grayish water and thick sludge coming out of wells and taps.<sup>31</sup>

Jessica Ernst, a landowner in Rosebud, Alberta, filed a lawsuit against EnCana, Alberta Environment, and the Energy Resources Conservation Board for negligence and unlawful activities. Ernst’s well water is so contaminated with methane and other fracking chemicals that it can be lit on fire. (An Alberta court ruled that the Alberta Energy Regulator is immune to private legal claims, but Ernst will appeal this and pursue her case against Encana.)

In 2010, the Pennsylvania Department of Environmental Protection concluded that a fracking well drilled by Cabot Oil and Gas Corporation contaminated a large aquifer with methane resulting in the contamination of the drinking water of 19 families. Environment News Service reported that Dimock resident Ray

Kemble said: “EPA officials officially told us that our water was safe to drink but then told us off the record not to drink it. Now the truth is out and we want justice.”

ProPublica found more than 1,000 cases of water contamination documented by the courts and state and local governments in Colorado, New Mexico, Alabama, Ohio and Pennsylvania.

Fracking threatens our drinking water

**BAN FRACKING NOW!**

canadians.org/fracking

you to place a ban on future fracking

Fracking uses millions of litres of water and has the potential to contaminate drinking water with methane and toxic chemicals. Safely disposing of fracking wastewater is incredibly difficult and the injection of fracking wastewater into the ground has been linked to earthquakes.

Fracking is one of the biggest threats to water of our time. I urge you to ban future fracking to protect communities' drinking water.

Sincerely,

Name \_\_\_\_\_ Postal code \_\_\_\_\_

Email \_\_\_\_\_

Return this postcard to the Council of Canadians and we'll deliver it for you!

**BAN FRACKING NOW!**  
www.canadians.org/fracking

**Members of Parliament**  
c/o Council of Canadians  
700-170 Laurier Ave W.  
Ottawa, ON  
K1P 5V5

THE COUNCIL OF CANADIANS  
LE CONSEIL DES CANADIENS  
ACTIF POUR VOTRE FUTUR / AMBIEUX POUR LA VOTRE MONTÉE

<sup>30</sup> [www.desmogblog.com/2012/12/22/alberta-finds-mismanagement-errors-causes-fracking-water-contamination-alberta](http://www.desmogblog.com/2012/12/22/alberta-finds-mismanagement-errors-causes-fracking-water-contamination-alberta)

<sup>31</sup> [www.dawsoncreekdailynews.ca/article/20131027/DAWSONCREEK0101/310279999/-1/dawsoncreek/hudson-8217-s-hope-and-the-future-of-fracking](http://www.dawsoncreekdailynews.ca/article/20131027/DAWSONCREEK0101/310279999/-1/dawsoncreek/hudson-8217-s-hope-and-the-future-of-fracking)

The Council of Canadians is calling for a ban on fracking because of the potential for fracking to contaminate drinking water.



## ✗ "Fracking can be done safely."



Research by the U.S. Environmental Protection Agency and the Endocrine Disruption Exchange Inc. has demonstrated that fracking fluids contain toxic substances known to cause serious health impacts such as cancer and organ damage, and have negative impacts on neurological, reproductive and endocrine systems.

The National Wildlife Federation's report "Hydraulic Fracturing in the Great Lakes Basin" notes that there are approximately one dozen chemical additives that are used for fracking including acids, gelling agents and cross-linkers, iron control agents and scale inhibitors, corrosion inhibitors and oxygen scavengers, biocides and friction-reducing agents. A 2011 report by the Democratic members of the U.S. House Committee on Energy and Commerce revealed that the leading 14 oil and gas service companies used 750 chemical components between 2005 and 2009.

The potential for fracking well leaks raises further concerns about water contamination. Andrew Nikiforuk, a Canadian journalist who has researched and written extensively about the oil and gas industries, has pointed out that "industry studies clearly show that five to seven per cent of all new oil and gas wells leak. As wells age, the percentage of leakers can increase to a startling 30 or 50 per cent. But the worst leakers remain 'deviated' or horizontal wells commonly used for hydraulic fracturing."<sup>32</sup>

32 [theyee.ca/News/2013/01/09/Leaky-Fracked-Wells/](http://theyee.ca/News/2013/01/09/Leaky-Fracked-Wells/)

## ✗ "Fracking will create jobs."



Governments and industry representatives promote fracking as a way to boost job creation. However, these are neither ethical nor sustainable jobs.

The Canadian Centre for Policy Alternatives' (CCPA) report "Enbridge Pipedreams and Nightmares" notes that Enbridge boasts that a fossil fuel project like the \$5 billion Northern Gateway Pipeline would create 63,000 person-years of employment during its construction phase, and 1,146 full-time jobs once completed. However, CCPA reveals these estimates are overblown and that it would only create approximately 1,850 construction jobs per year for three years, and a handful of permanent new jobs once completed. The report points out that between 3 and 34 times the number of direct jobs would be created if the \$5 billion were invested in green jobs and industries.

U.S. organization Food & Water Watch (FWW) has produced reports showing that the estimate of new jobs is overblown and misleading. In their report, "Exposing the Oil and Gas Industry's False Jobs Promise for Shale Gas Development: How Methodological Flaws Grossly Exaggerate Jobs Projections," FWW points out that the Public Policy Institute of New York State (PPINYS) boasted that developing 500 new shale gas wells every year in the five counties of Allegany, Broome, Chemung, Steuben and Tioga would create 62,620 new jobs in New York by 2018. But when FWW analyzed employment data from the Bureau of Labor Statistics in counties with shale gas development in Pennsylvania and compared them to bordering counties in New York without shale gas development, the organization found these claims to be baseless. In fact, FWW found that opening up the five counties in New York to fracking would

create no more than two jobs per well in the state compared to PPINYS' claims of 125 jobs per well. Some of the jobs would be in construction, retail or the food industry rather than solely in the drilling industry.<sup>33</sup>

Job estimates often do not make clear where the workers will come from and how the local community will actually benefit. Industry fails to consider the negative impacts that fracking would have on existing employment in other industries, such as tourism and agriculture. For example, in Newfoundland the tourism industry raised concerns about the impacts fracking would have on its \$1 billion industry. Gros Morne National Park in Newfoundland received international attention when UNESCO raised concerns about how fracking would affect the park, potentially jeopardizing its World Heritage Site status and the local tourism industry.

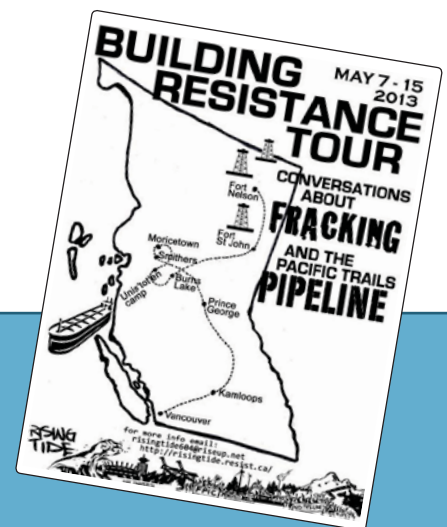
33 [www.foodandwaterwatch.org/reports/how-new-york-state-exaggerated-potential-job-creation/](http://www.foodandwaterwatch.org/reports/how-new-york-state-exaggerated-potential-job-creation/) and [www.foodandwaterwatch.org/reports/exposing-the-oil-and-gas-industrys-false-jobs-promise/](http://www.foodandwaterwatch.org/reports/exposing-the-oil-and-gas-industrys-false-jobs-promise/)

✗ "Fracking is well regulated in Canada."



Companies are not legally required to disclose the chemicals they use for fracking. In fact, the specific combination and quantities of chemicals used are considered proprietary trade secrets.

Under the Chemicals Management Plan (CMP), Environment Canada reviewed chemicals used in the fracking process in both Quebec and the U.S. Approximately half of the fracking chemicals did not meet the CMP criteria for further investigation, meaning these chemicals have not been assessed for potential risks to the public.



## Community Tours

Holding a community tour is a strategy that is being used on the West Coast to raise awareness about fracking and pipeline projects.

In the Yukon, Caleb Behn from the soon-to-be-released documentary *Fractured Land* traveled to Watson Lake, Whitehorse, Mayo, Dawson and Ross River in January 2013 to share his experiences on fracking: [yukon-news.com/news/indigenous-activist-to-speak-on-fracking](http://yukon-news.com/news/indigenous-activist-to-speak-on-fracking)

The Yukoners Concerned About Oil & Gas Exploration/Development group is travelling to communities to host presentations and facilitate public discussions on fracking: [yukonersconcerned.ca](http://yukonersconcerned.ca)

Rising Tide B.C. organized the "Building Resistance Tour: Conversations about fracking and Pacific Trails Pipeline." The purpose of the seven-stop tour of northern B.C. was to expose the true costs of fracking and to support frontline community resistance to pipeline expansion in rural areas: [risingtide604.ca/?p=578](http://risingtide604.ca/?p=578)



## Getting our Governments to Act

### How to pass a bylaw or resolution

Help raise awareness locally about the dangers of fracking by visiting your local municipal or town council and asking elected representatives to pass a resolution that places a moratorium, or even a full ban, on fracking operations within city limits.

Start by meeting with local politicians to get them onside. Find out how to get a motion introduced and be prepared to speak at committee and/or council meetings. Use our sample resolution below as a starting point, and be sure to check our website [www.canadians.org/fracking](http://www.canadians.org/fracking) for other helpful resources such as factsheets and articles that you can use for research and background information.

### Sample municipal resolutions on fracking

WHEREAS hydraulic fracturing (fracking) for natural gas and other fossil fuels often involves the injection of hundreds of toxic chemicals into the ground; and

WHEREAS hydraulic fracturing uses massive amounts of water, as much as 36 million litres per fracking “job”; and

WHEREAS there have been more than 1,000 documented cases of water contamination near fracking sites in the U.S. and some people, such as in Rosebud, Alberta, have well water that now contains so much natural gas they can light their drinking water on fire; and

WHEREAS the pollution of water caused by fracking threatens the long-term economic, social and ecological well being of communities that depend on clean water sources to meet their basic needs; and

WHEREAS the treatment of fracking wastewater strains municipal wastewater systems and puts water sources at risk since wastewater treatment systems are not capable of removing endocrine disruptors and other toxic chemicals from fracking wastewater; and

WHEREAS more study is needed on the impact of hydraulic fracturing on localized air pollution, which can have adverse health effects; and

WHEREAS while the industry claims that natural gas is a cleaner fuel, some independent studies have shown that hydraulic fracturing creates more lifecycle greenhouse gas emissions than mining and burning coal and clearly more scientific study is needed; and

WHEREAS water and air are shared commons and public trusts and as such require genuine public consultation and a process that enables communities to be a part of the decision-making process; and

WHEREAS on September 23, 2011, the UN Human Rights Council passed Resolution A/HRC/18/L.1 affirming the human right to safe and clean drinking water and sanitation and as such contamination of drinking water by fracking fluids is a violation of this and other human rights;





## Option 1: Moratorium until review/public consultation occurs:

NOW, THEREFORE BE IT RESOLVED that on the \_\_\_\_ day of \_\_\_\_, 20\_\_, (municipality or town) supports a province-wide and national moratorium on hydraulic fracturing until provincial and federal reviews have been completed that include extensive public consultation and full consideration of the potential human and environmental impacts of hydraulic fracturing.

BE IT FURTHER RESOLVED that (municipality or town) also calls for dialogue between First Nations, federal, provincial and municipal governments on the impacts of hydraulic fracturing.

NOW, THEREFORE BE IT ORDAINED that hydraulic fracturing for natural gas and other fossil fuels within (municipality or town) and (name of local watershed) watershed and the treatment of fracking fluids in (municipality or town)'s wastewater treatment plant(s) is prohibited until the above-noted public consultations and reviews have been completed.

PASSED, APPROVED, AND EFFECTIVE on this \_\_\_\_ day of \_\_\_\_, 20\_\_.

ATTEST:

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Council President

Assembly of First Nations resolution Moratorium on Hydraulic Fracturing (Resolution 6g)  
[www.afn.ca/uploads/files/sca-res-11.pdf](http://www.afn.ca/uploads/files/sca-res-11.pdf)

Vuntut Gwitchin First Nation resolutions  
[www.vgfn.ca/ga-2013.php](http://www.vgfn.ca/ga-2013.php)

Quebec resolutions  
[regroupementgazdeschiste.com/?page=resolutions](http://regroupementgazdeschiste.com/?page=resolutions)

## Option 2: Outright ban:

NOW, THEREFORE BE IT RESOLVED that on the \_\_\_\_ day of \_\_\_\_, 20\_\_, (municipality or town) supports a provincial and national ban on hydraulic fracturing for natural gas and other fossil fuels.

BE IT FURTHER RESOLVED that (municipality or town) will send a letter to (Member of Provincial Parliament and Member of Parliament) calling for a ban on hydraulic fracturing and for the development of provincial and federal legislation banning hydraulic fracturing.

NOW, THEREFORE BE IT ORDAINED that hydraulic fracturing for natural gas and other fossil fuels within (municipality or town) and (name of local watershed) watershed and the treatment of fracking fluids in (municipality or town)'s wastewater treatment plant(s) is banned.

PASSED, APPROVED, AND EFFECTIVE on this \_\_\_\_ day of \_\_\_\_, 20\_\_.

ATTEST:

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Council President

## OTHER RESOLUTIONS/BYLAWS PASSED:

Burnaby, British Columbia resolution  
[burnaby.civicweb.net/Documents/DocumentList.aspx?ID=13406](http://burnaby.civicweb.net/Documents/DocumentList.aspx?ID=13406)

Inverness, Nova Scotia bylaw  
[www.canadians.org/sites/default/files/water/fracking/Anti-fracking\\_bylaw\\_passed\\_May6\\_2013.pdf](http://www.canadians.org/sites/default/files/water/fracking/Anti-fracking_bylaw_passed_May6_2013.pdf)

Niagara-on-the-Lake, Ontario resolution  
[www.canadians.org/sites/default/files/1899\\_001.pdf](http://www.canadians.org/sites/default/files/1899_001.pdf)



## Making a submission to the government

In some cases, governments will hold public consultations and invite public comments on fracking projects. This is an opportunity to pressure the government and raise public awareness about fracking.

Here are some examples of submissions from the Council of Canadians:

Letter to Nova Scotia Environment about Colchester fracking wastewater:

[www.canadians.org/sites/default/files/Colchester-fracking-appeal-0513.pdf](http://www.canadians.org/sites/default/files/Colchester-fracking-appeal-0513.pdf)

Canada-Newfoundland and Labrador Offshore Petroleum Board: [www.canadians.org/sites/default/files/water/fracking/NL-SEA-report-submission0913.pdf](http://www.canadians.org/sites/default/files/water/fracking/NL-SEA-report-submission0913.pdf)

New York's Department of Environmental Conservation: [www.canadians.org/sites/default/files/council-of-canadians-comments-on-ny-hydraulic-fracturing.pdf](http://www.canadians.org/sites/default/files/council-of-canadians-comments-on-ny-hydraulic-fracturing.pdf)

## What to ask candidates during elections

An election campaign period is a perfect time to raise the issue of fracking with candidates. You can attend all-candidates debates, send emails, write letters to the editor (see page 42) and use social media to get candidates to take a position on fracking. (See sample tweets on page 46.)

### Here are some sample questions to ask candidates in the lead-up to an election:

What is your position on fracking? Do you support a ban/moratorium on (future) fracking?

Regulation for fracking falls largely to provinces and territories because of their power to issue drilling and water permits. While it is true that hydraulic fracturing has been used for decades, fracking for unconventional gas – shale gas, coalbed methane and tight gas – is new and provincial regulations have not caught up to this expanding technology. What regulations or legislation will you implement to regulate fracking?

A typical fracked well requires the use of between 55,000 and 220,000 litres of chemicals, but the specific combination and quantities of chemicals used are considered proprietary trade secrets. Will you legally require companies to disclose a full list of the chemicals they use during the fracking process?

A typical fracking project uses anywhere from 10 million to 200 million litres of water. How will you monitor water use for fracking and ensure that water is protected as a human right for current and future generations?

Under Article 32 of the UN Declaration of the Rights of Indigenous Peoples governments are required to obtain free and informed consent prior to the approval of any project affecting Indigenous peoples' lands or territories and other resources, particularly in connection with



the development, utilization or exploitation of mineral, water or other resources. Will you ensure that free and informed prior consent is obtained for any fracking projects and approvals for water takings?

**From the Nova Scotia Fracking Resource and Action Coalition:**

Will your government extend the existing moratorium and enact a legislated 10-year moratorium on fracking, and if not, what conditions would have to exist before your party would consider it safe to lift the present moratorium on fracking?

Hydraulic fracturing (fracking) for shale gas generates many millions of litres of contaminated wastewater each time a well is fracked. This wastewater contains a mix of hazardous contaminants, including chemicals from fracking fluids and contaminants released from shale by fracking. Fracking wastewater often contains radioactive elements, many of which have long half-lives, such as radium 226 with a half-life of 1600 years. The release of fracking wastewater into the environment, even after partial treatment, can have long-term impacts on people's health and the environment. According to studies, there are no safe methods of disposing fracking wastewater. Will your party prohibit fracking wastewater from being imported from other provinces into Nova Scotia?

While candidates may dodge controversial topics during an election campaign, it is a critical time and a good opportunity to raise these issues and press them to go on the record with a position against fracking.



## Further Readings and Resources

### Fracking chemicals

U.S. House of Representatives, Committee on Energy and Commerce – Chemicals Used in Hydraulic Fracturing, April 2011  
[democrats.energycommerce.house.gov/sites/default/files/documents/Hydraulic-Fracturing-Chemicals-2011-4-18.pdf](http://democrats.energycommerce.house.gov/sites/default/files/documents/Hydraulic-Fracturing-Chemicals-2011-4-18.pdf)

The Endocrine Disruption Exchange  
[www.endocrinedisruption.com](http://www.endocrinedisruption.com)

### FracFocus

B.C. [www.fracfocus.ca](http://www.fracfocus.ca) U.S. [www.fracfocus.org](http://www.fracfocus.org)

### General information

Brief review of threats to Canada's groundwater from the oil and gas industry's methane migration and hydraulic fracturing [www.ernstversusencana.ca/wp-content/uploads/2013/06/Brief-review-of-threats-to-Canadas-groundwater-from-oil-gas-industrys-methane-migration-and-hydraulic-fracturing-v4.pdf](http://www.ernstversusencana.ca/wp-content/uploads/2013/06/Brief-review-of-threats-to-Canadas-groundwater-from-oil-gas-industrys-methane-migration-and-hydraulic-fracturing-v4.pdf)

The carbon footprint of shale gas of shale gas development, Tony Ingraffea  
[www.canadians.org/sites/default/files/publications/OEB%20Ingraffea.pdf](http://www.canadians.org/sites/default/files/publications/OEB%20Ingraffea.pdf)

Fracking Up Our Water, Hydro Power and Climate: BC's reckless pursuit of shale gas, Ben Parfitt  
[www.policyalternatives.ca/fracking](http://www.policyalternatives.ca/fracking)

Fractured Lines: Will Canada's Water be Protected in the Rush to Develop Shale Gas?  
[beta.images.theglobeandmail.com/archive/00942/Fractured\\_Lines\\_942842a.pdf](http://beta.images.theglobeandmail.com/archive/00942/Fractured_Lines_942842a.pdf)

Land use (impacts on lives and lifestyles), New Brunswick Anti-Shale Gas  
[www.dropbox.com/s/21jmy4j7m1xm2zm/Final%20-%20Municipality%20-%20land%20ouse.pdf](http://www.dropbox.com/s/21jmy4j7m1xm2zm/Final%20-%20Municipality%20-%20land%20ouse.pdf)

Municipal water – can regulations protect, New Brunswick Anti-Shale Gas  
[www.dropbox.com/s/2fa25fk1vla6zha/Final%20-%20Will%20NB%20rules%20protect%20municipal%20water.pdf](http://www.dropbox.com/s/2fa25fk1vla6zha/Final%20-%20Will%20NB%20rules%20protect%20municipal%20water.pdf)

Out Of Control: Nova Scotia's Experience for Fracking for Shale Gas, Nova Scotia Fracking Resource and Action Coalition  
[nofrac.files.wordpress.com/2013/04/out-of-control-full-report.pdf](http://nofrac.files.wordpress.com/2013/04/out-of-control-full-report.pdf)

The Regulation of Shale Gas Development: State of play, Lisa Sumi  
[www.canadians.org/sites/default/files/publications/OEB%20Sumi.pdf](http://www.canadians.org/sites/default/files/publications/OEB%20Sumi.pdf)

Shale Gas Supply to the Greater Toronto Area, David Hughes  
[www.canadians.org/sites/default/files/publications/OEB%20Hughes.pdf](http://www.canadians.org/sites/default/files/publications/OEB%20Hughes.pdf)

### Health

Chief Medical Officer of Health's Recommendations Concerning Shale Gas Development in New Brunswick  
[www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/Recommendations\\_ShaleGasDevelopment.pdf](http://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/HealthyEnvironments/Recommendations_ShaleGasDevelopment.pdf)

Impact of Shale Gas on Hospitals and Health Costs for all of New Brunswick, New Brunswick Anti-Shale Gas Alliance  
[www.dropbox.com/s/4pphs96h6z7fmbz/Final%20-%20Municipalities%20Ao-%20Costs%20and%20threats%20to%20health%20care%20system.pdf](http://www.dropbox.com/s/4pphs96h6z7fmbz/Final%20-%20Municipalities%20Ao-%20Costs%20and%20threats%20to%20health%20care%20system.pdf)

Health Costs of Air Pollution, New Brunswick Anti-Shale Gas  
[www.dropbox.com/s/ugfw3woonvbgxx/Final%20-%20Municipality%20-%20Health%20costs%20-%20air%20pollution.pdf](http://www.dropbox.com/s/ugfw3woonvbgxx/Final%20-%20Municipality%20-%20Health%20costs%20-%20air%20pollution.pdf)

Mining Community Health Assessment Toolkit  
[rabble.ca/toolkit/guide/mining-community-health-assessment-toolkit](http://rabble.ca/toolkit/guide/mining-community-health-assessment-toolkit)

The Fracking and Health Awareness Project, a project of the Environmental Health Association of Nova Scotia, provides a wide range of information on the health impacts of fracking and shale gas on children, animal and workers' health, as well as air, food, water, radioactivity and mental health.  
[www.frackingandhealth.ca](http://www.frackingandhealth.ca)

### Information for landowners

An Ohio Landowner's Guide to Hydraulic Fracturing  
[blogs.law.harvard.edu/environmentallawprogram/files/2013/01/elpc-ohio-leasing-guide-v2-june-2011-web.pdf](http://blogs.law.harvard.edu/environmentallawprogram/files/2013/01/elpc-ohio-leasing-guide-v2-june-2011-web.pdf)

Information About Landowner Rights and Fracking in the U.S.  
[rafusa.org/further-information-about-landowners-rights-and-fracking/](http://rafusa.org/further-information-about-landowners-rights-and-fracking/)

### Jobs and the economy

Boom-bust economics, New Brunswick Anti-Shale Gas Alliance  
[www.dropbox.com/s/y5ikmoekjj522yk/Final%20-%20Municipalities%20Boom-Bust%20Experience.pdf](http://www.dropbox.com/s/y5ikmoekjj522yk/Final%20-%20Municipalities%20Boom-Bust%20Experience.pdf)

Jobs (clean energy), New Brunswick Anti-Shale Gas Alliance  
[www.dropbox.com/s/h5fj6ba231xogvr/Final%20-%20Municipalities%20-%20jobs.pdf](http://www.dropbox.com/s/h5fj6ba231xogvr/Final%20-%20Municipalities%20-%20jobs.pdf)

How New York State Exaggerated Potential Job Creation from Shale Gas Development  
[www.foodandwaterwatch.org/reports/how-new-york-state-exaggerated-potential-job-creation/](http://www.foodandwaterwatch.org/reports/how-new-york-state-exaggerated-potential-job-creation/)

Exposing the Oil and Gas Industry's False Jobs Promise for Shale Gas Development: How Methodological Flaws Grossly Exaggerate Jobs Projections  
[www.foodandwaterwatch.org/reports/exposing-the-oil-and-gas-industrys-false-jobs-promise/](http://www.foodandwaterwatch.org/reports/exposing-the-oil-and-gas-industrys-false-jobs-promise/)

Municipal burdens of hosting shale gas, New Brunswick Anti-Shale Gas Alliance  
[www.dropbox.com/s/zqph1iqm2jbshzn/Final%20-%20Municipalities%20-%20Municipal%20Burdens%20of%20Hosting%20Shale%20Gas.pdf](http://www.dropbox.com/s/zqph1iqm2jbshzn/Final%20-%20Municipalities%20-%20Municipal%20Burdens%20of%20Hosting%20Shale%20Gas.pdf)

Roads (damage – cost), New Brunswick Anti-Shale Gas Alliance  
[www.dropbox.com/s/cji4ywbbfw76zx8/Final%20-%20Municipalities%20-%20Road%20repairs.pdf](http://www.dropbox.com/s/cji4ywbbfw76zx8/Final%20-%20Municipalities%20-%20Road%20repairs.pdf)

Short life span of shale gas (costs up, royalties down), New Brunswick Anti-Shale Gas Alliance  
[www.dropbox.com/s/dwog8xqybaix8/Final%20-%20Municipalities%20-%20shale%20life%20span.pdf](http://www.dropbox.com/s/dwog8xqybaix8/Final%20-%20Municipalities%20-%20shale%20life%20span.pdf)

Tourism – (threats to), New Brunswick Anti-Shale Gas Alliance  
[www.dropbox.com/s/zudvoy8ywuxgimn/Final%20-%20Municipalities%20-%20Tourism.pdf](http://www.dropbox.com/s/zudvoy8ywuxgimn/Final%20-%20Municipalities%20-%20Tourism.pdf)

### Organizing and activist guides

Beautiful Trouble is a book and online resources that compiles decades of creative actions and protest ideas.  
[beautifultrouble.org](http://beautifultrouble.org)

How to be an activist  
[www.planetfriendly.net/active.html](http://www.planetfriendly.net/active.html)

*How to Save the World in Your Spare Time*, Elizabeth May  
[www.sierraclub.ca/national/activist-how-to/](http://www.sierraclub.ca/national/activist-how-to/)

Joshua Kahn Russell's Resources for Organizers including links on nonviolent direct action and civil disobedience  
[joshuakahn russell.wordpress.com/resources-for-activists-and-organizers/](http://joshuakahn russell.wordpress.com/resources-for-activists-and-organizers/)

Organize to win – A grassroots activist's handbook  
[britell.com/text/OrganizeToWin.pdf](http://britell.com/text/OrganizeToWin.pdf)

Rabble.ca's Activist Toolkit How-To Guides

Direct Action

[rabble.ca/toolkit/guide/direct-action](http://rabble.ca/toolkit/guide/direct-action)

Lobbying

[rabble.ca/toolkit/guide/lobbying](http://rabble.ca/toolkit/guide/lobbying)

How to organize a rally or a march

[rabble.ca/toolkit/guide/how-to-organize-rally-or-march](http://rabble.ca/toolkit/guide/how-to-organize-rally-or-march)

Mobilizing students

[rabble.ca/toolkit/guide/mobilizing-students](http://rabble.ca/toolkit/guide/mobilizing-students)

Field Canvassing

[rabble.ca/toolkit/guide/field-canvassing](http://rabble.ca/toolkit/guide/field-canvassing)

Using Theatre to Protest

[rabble.ca/toolkit/guide/using-theatre-to-protest](http://rabble.ca/toolkit/guide/using-theatre-to-protest)

Check out other How-To Guides on Rabble.ca's Activist Toolkit  
[rabble.ca/toolkit/guide](http://rabble.ca/toolkit/guide)

The most amazing online organizing guide ever!  
[greenmemesteam.tumblr.com/guide](http://greenmemesteam.tumblr.com/guide)

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