

Acknowledgements

This Citizen's Guide is intended for broad public consumption. It was written to inform affected individuals, First Nations and other communities about coalbed methane (CBM) activities in British Columbia. The Guide is designed to provide information regarding the impacts from the exploration and extraction of coalbed methane; enable citizens to intervene in the approval process to ensure their interests are protected; and identify opportunities for the reform of specific laws to better protect the interests of the public in the long term.

This guide is the product of Dogwood Initiative's staff, volunteers and contractors. Many people played an important role in its completion. It was primarily written by Laura Atkinson and Will Horter with assistance from Matt Takach and Amanda Leslie Spinks. Michael Begg contributed his usual deft editing and the layout and design was done by Carley Colclough.

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As with any major research project, some errors and omissions are inevitable. We used the best available data and attempted to be as accurate as possible. Any mistakes are mine as the lead author.



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Background Photo:
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Contents

Acronyms and Abbreviations	1
Why this Guide?	2
CBM in BC	3
Description of CBM projects in BC	3
Status Report of CBM Operations in BC	5
Impacts of CBM projects in BC	6
Contaminated Aquifers and Produced Water	6
Flaring	7
Cumulative Impacts	8
Well Spacing	8
Seismic Testing	8
Noise Pollution	8
Who Has Jurisdiction over CBM	9
Provincial Ministries and Agencies:	9
Ministry of Energy and Mines and Petroleum Resources (MEMPR)	9
Ministry of Environment (MOE)	10
Oil and Gas Commission (OGC)	10
Mediation and Arbitration Board (MAB)	10
British Columbia Environmental Assessment Office (BCEAO)	11
Federal Government:	11
The CBM Approval Process	12
Obtaining Subsurface Rights to CBM in BC	12
Public Consultation on CBM	13
The OGC Process	13
New Approaches to Consultation	14
Resolving Disputes	15
Landowners' Rights	16
Surface Use Agreement and Compensation	16
New Approaches to Landowner Consultation and Dispute Resolution	16
Regional Energy and Mines Advisory Committees	17
Environmental Assessments	17
Provincial Environmental Assessments	17
Federal Environmental Assessments	19

Opportunities for Citizen Engagement	20
Organizing and Agitating	21
Participating in the Public Engagement Process	22
Engaging Prior to Tenure Being Granted	22
Engaging OGC about Operational Issues	23
Dispute Resolution	23
Asserting Landowner Rights	24
First Nations' Engagement	24
Engaging the Environmental Assessment Process	25
What Will Be Done With the Results of the Consultations?	25
Holding Proponents to their Commitments	26
Best Practices for Engaging CBM Proposals	27
Opportunities for Law Reform	28
Fixing Environmental Assessment	28
Cumulative Impacts	28
Mandating What is Now Discretionary	29
Aboriginal Involvement	29
Intervenor Funding	29
Implementing Best Practices Regulation	29
Appendix A:	30
Negotiating a Surface Use Agreement	30
Company and Project Information	30
For More Information	36
CBM Primers	36
CBM Best Practice Documents	36
Landowners	36
Consultation	37
Water	37
Flaring	37
Drilling	37
Noise and Visual Impact	37
Endnotes	38



Acronyms and Abbreviations

BC	British Columbia
BCEAO	British Columbia Environmental Assessment Office
CBM	Coalbed Methane, a.k.a. coalbed natural gas or coalbed gas
EA	Environmental Assessment
MAB	Mediation and Arbitration Board
MEMPR	Ministry of Energy, Mines and Petroleum Resources
MOE	Ministry of Environment
NUC	Notice of Unresolved Concern
OGC	Oil and Gas Commission
SUA	Subsurface Use Agreement BC

An aerial photograph of a lush green forested landscape. A dirt road or path winds through the trees, and a small, light-colored pond or clearing is visible in the lower left. The overall scene is a dense, natural environment.

Why this Guide?

The expansion of the coalbed methane (CBM) industry in British Columbia is one of the cornerstones of the 2007 BC Energy Plan. Although coalbed methane, or natural gas from coal seams, is one of the cleanest burning of all fossil fuels, its extraction raises many health and environmental concerns, including groundwater contamination, adverse health effects from flaring, and decreased wildlife populations caused by fragmentation of wilderness.¹

Coalbed methane operations industrialize the landscape. One project can require hundreds or thousands of closely spaced wells, pumps, interconnecting roads, power lines, pipelines and compressors.² In addition, the production of coalbed methane results in the extraction of massive amounts of water, called “Produced Water.” One CBM well can produce 63,594 litres of water a day, 10-100 times more water than conventional gas wells.³

The BC Government’s Energy Plan committed to using the “best practices” in North America in expanding CBM development.⁴ The government’s commitments include:

- Eliminating all routine flaring at oil and gas producing wells and production facilities by 2016, with an interim goal to reduce flaring by half (50 per cent) by 2011;

- Fully engaging communities and First Nations;

- Using the most advanced technology and practices that are commercially viable;

- Prohibiting the surface discharge of Produced Water; and

- Any re-injected Produced Water must be well below aquifers.⁵

To meet its goal of being an economic and environmental leader, it is essential that the BC government adequately plan and regulate the development of CBM in British Columbia.

This *Citizen’s Guide to Coalbed Methane* is designed to help citizens affected by proposed CBM operations to understand the potential impact of CBM on their communities, and to help them participate more effectively in the approval process to ensure their interests are protected.

In addition, it is important that BC citizens and communities to know about and therefore hold the BC government to the commitments it has made towards more environmentally sound resource extraction policies and practices.

Finally, this guide identifies opportunities for the reform of specific laws, to more broadly protect the interests of the public in the future.

A companion report, *Coalbed Methane Best Practices for British Columbia*, details the best practices used in other jurisdictions of North America to protect the environment and engage citizens, and makes recommendations about how British Columbia can strengthen its rules to match them.



CBM in BC

Description of CBM projects in BC

Above:

Skeena watershed,
an area under threat
of CBM development

Photo: Brian
Huntington

Coalbed methane potentially exists anywhere there are coal deposits. British Columbia has 250 billion tonnes of coal deposits that lie within 2,000 meters of the surface (making them potentially economically viable for CBM exploration). Currently, British Columbia's CBM potential is estimated at 90 trillion cubic feet, but the percentage of this resource that may be recoverable may be much lower.⁶

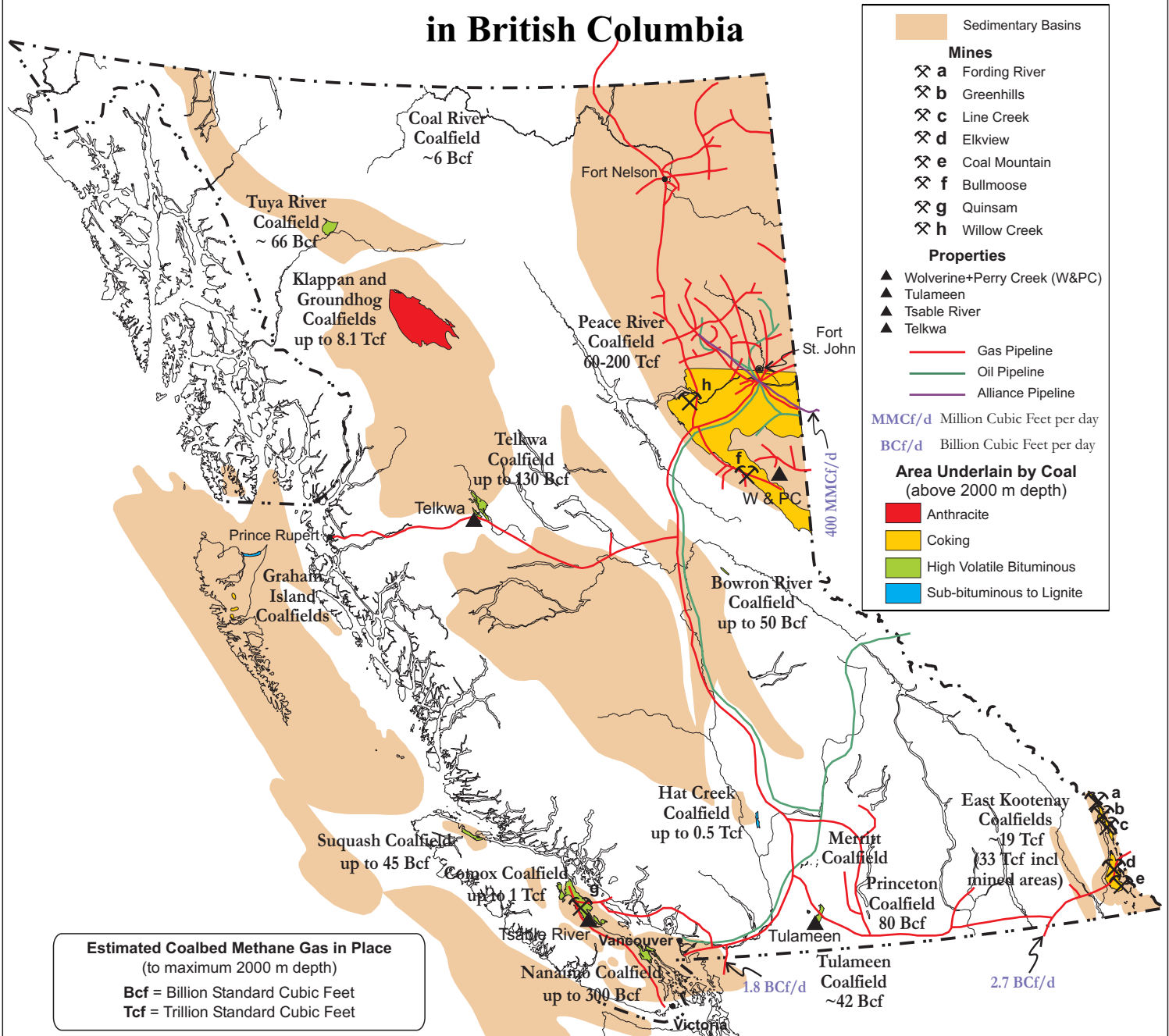
Coalfields are everywhere in British Columbia; however, nearly 98 per cent of the province's potential coalbed methane exists in three areas: Peace River in the northeast (in the Gates, Gething and Minnes formations); the East Kootenays (in the Elk Valley, Crowsnest and Flathead formation); and the remote Klappan-Groundhog field near the Sacred Headwaters of the Stikine, Nass and Skeena watersheds.⁷

Smaller potential deposits of CBM are thought to be located near Telkwa, Hat Creek, Princeton, Tuya River, Tulameen, Merrit, Bowron River, Coal River and, on or near Vancouver Island, Nanaimo, Comox, Suquash and Graham Island.⁸

The ecology and geology of some of these sites make them unlike any other areas in North America where coalbed methane has been developed in the past. For example, coalbed methane has never been commercially extracted from sub-alpine and alpine regions, or from areas near salmon spawning grounds—both of which are conditions found in the Klappan at the headwaters of the Skeena River. In these fragile ecosystems, environmental impacts not historically associated with coalbed methane, such as effects on salmon spawning or loss of key wildlife habitat, may prove to be significant.⁹

Moreover, while exploration wells may only cause incremental impacts in some regions, in relatively undeveloped areas like the Klappan and the Kootenays, exploration can lead to substantial changes in environmental quality. When coalbed methane is being considered in sensitive environments, communities must be in a position to understand and assess potential impacts early and be empowered to allow or reject development.¹⁰

Coalfields and Coalbed Methane Potential in British Columbia



Status Report of CBM Operations in BC

The 2007 BC Energy Plan prioritized expanding coalbed methane in the Province. In particular, the Energy Plan offered tax credits and royalty breaks to encourage CBM operations and to make British Columbia more attractive for CBM investment.

In December 2008, Geomet, and Canada Energy Partners—a junior gas exploration company based out of Vancouver—began developing CBM wells near Hudson's Hope, in Peace River country. By January 2009, they had begun commercial shipment of CBM from eight initial wells, and drilled four core holes and twelve production wells in by the spring.¹¹ Estimates suggest 4 billion cubic feet of proven reserves within the lease.¹²

In the Klappan area of northwestern British Columbia, the Tahltan First Nation had been protesting and blockading Shell Canada's attempts to explore for CBM in the Sacred Headwaters since Shell Canada was first awarded tenure in 2004. After years of conflict, punctuated by blockades, arrests, lawsuits and international outreach, in December 2008 the provincial government pushed Royal Dutch Shell into agreeing to a two- to four-year moratorium on most activity related to its CBM proposal for the area - ostensibly to give the Tahltan time to comprehensively consider Shell's proposal.¹³

Shell has also recently begun producing CBM from their Farrell Creek Pilot Project - a joint venture with Canadian Spirit Resources - adjacent to GeoMet/CEP's project near Hudson's Hope. Shell, the operator for the project, has completed construction on an expandable processing plant with an initial capacity of 1.1 million cubic feet per day, and a gas gathering system to connect 11 existing wells into the nearby Spectra gas pipeline. The Pilot project is expected to last until about September 2010.¹⁴ First sale of gas from this project occurred in June, 2009.¹⁵

At the same time as the Shell Sacred Headwaters moratorium announcement, the Provincial government awarded British Petroleum (BP) a 300-square-kilometer tenure in the Elk Valley, despite the protests of local residents. BP is continuing with a baseline monitoring program in the area, though the design is contested, and has said it will make a decision about initiating a commercial-scale operation in 2010 by the fourth quarter 2009. BP also has plans to develop an additional 200-square-kilometer tract in the ecologically rich Flathead Valley, though tenure has not yet been granted for this phase.¹⁶

Stormcat Energy has a 30,000 hectare lease in the Elk Valley, within which it has drilled over twenty exploration wells. However, Stormcat has been relatively inactive since the provincial government banned the surface disposal of "Produced Water," and since its parent company in the US was forced to file for Chapter 11 Bankruptcy Protection. It remains unclear how the US bankruptcy will affect Stormcat's BC operations. Stormcat has filed no recent applications for expanded activity.¹⁷

Hillsborough Resources and its partners have long pursued the possibility of developing CBM east of the Company's Quinsam mine on Vancouver Island, near Campbell River. However, recent requests for tenure have been denied by the provincial Ministry of Energy, Mines, and Petroleum Resources ("MEMPR") due to inadequate stakeholder and First Nations consultation.¹⁸

In 2004 MEMPR granted rights to Outrider Energy and Norwest Corporation to explore and develop CBM near the village of Telkwa, BC. The project was highly controversial, in part due to concerns about impacts on water resources. In 2007 Outrider withdrew its

participation, citing the onerous task of fully dealing with the community's concerns. The CBM rights were sold to Edmonton-based Carbon Development Corporation in November, 2008. There has been no public activity since the sale.¹⁹

In 2003 PetroBank Energy and Resources acquired rights to explore for and extract CBM near the town of Princeton, BC. The company drilled a number of test wells, which generated significant local controversy and opposition, largely related to effects on groundwater. The company had plans to drill an additional two test wells, but in 2008 shelved its plans for the area, though some survey work appears to have been conducted since. It is not clear when and if PetroBank will renew activity.²⁰

Despite significant setbacks created largely by strong local opposition, CBM development is beginning to gain a foothold in the province, particularly in the Northeast. It is crucial that citizens have the opportunity to ensure that CBM is developed in British Columbia in a manner that does not jeopardize public health, the environment and the long term prosperity of the province.

Impacts of CBM projects in BC

Contaminated Aquifers and Produced Water

Coal Bed field river
discharge

Photo: Montana DEQ



CBM development often produces large amounts of water (i.e. draws it out of the underground coal seam and brings it to the surface) creating several environmental and health concerns. One CBM well can produce as much as 63,594 litres (16,800 gallons) of water a day.²¹ In the United States in some CBM basins it is predicted that the aquifer levels will drop by as much as 290 feet in the drilling fields, and CBM operations will suck water from more than 74 kilometres (46 miles) away. The depletion of aquifers caused by CBM operations affects aquifer recharge, river flows, wells and springs for 200 years.²² The decrease in aquifers can affect temperature of streams and the earth, which further harms soil productivity and wildlife.²³

In addition to the problem of depleted aquifers, water produced in the initial stages of development is often contaminated by the chemicals used in CBM operations. In order to extract CBM, operators will pump fracturing (“fracking”) fluids into the coal seams to prop them open and release the methane gas. The chemicals used in fracturing fluids are often toxic and can contaminate groundwater and drinking water, detrimentally affecting human health.²⁴

A study conducted in the United States found that when wells are hydraulically fractured, a portion of the fracturing fluids remains stranded in the target formation. In some areas, hundreds or thousands of wells are hydraulically fractured, often multiple times. This is especially problematic because several chemicals used during hydraulic fracturing operations (e.g., biocides, corrosion inhibitors, breakers and organic components such as benzene and naphthalene) “can be lethal at levels as low as 0.1 parts per million” and can easily contaminate drinking water.²⁵



Methane gas flare
Photo: Mister Naxal

British Columbia must protect its water so that fracking fluids used in CBM operations do not have the same detrimental effects that occurred in Colorado, New Mexico, Virginia, West Virginia, Alabama and Wyoming, where citizens reported changes in water quality and quantity following hydraulic fracturing operations. Common complaints include: murky or cloudy water, black or gray sediments, iron precipitates, soaps, black jelly-like grease, floating particles, diesel fuel or petroleum odours, increased methane in water, rashes from showering, gassy taste, and decrease or complete loss of water flow.²⁶

There are no mechanisms in place in British Columbia to determine whether CBM operations have contaminated water. There are no legislated baseline testing requirements for Produced Water in CBM operations, making it impossible to determine whether the quality of water has changed as a result of CBM development.

It is only if the amount of Produced Water is large enough to trigger an environmental assessment that baseline testing of water may be required. To trigger an environmental assessment a CBM well must produce more than 75 litres of water a second.²⁷ If the CBM well is projected to exceed this trigger, then an internal review process begins, to decide whether or not to subject the well to an environmental assessment.²⁸ The discretionary nature of environmental assessments leaves citizens with no guarantee that baseline testing will be conducted on their water.

In Hudson's Hope on the Peace River, for example, where CBM went into production in early 2009, there was no environmental assessment requiring baseline testing of water.²⁹ This is disconcerting since it sets a precedent of not carrying out baseline testing for water, even for an operation on such a major body of water.

Flaring

During the initial stages of developing a CBM well, in particular during the dewatering phase, methane is usually flared, i.e., burned off at the surface. A gas operator may flare or incinerate the gas for several weeks or months because the company does not know whether the well will be sufficiently economically viable to install pipelines.³⁰

The chemicals produced by flaring are toxic. They can set off skin disorders, certain cancers, birth defects and reproductive problems. Residents downwind of flaring in both British Columbia and Alberta report premature births, cancer, sick or dead livestock, allergies, multiple sclerosis, bloody noses, and nausea.³¹ This is especially troubling since flare pollutants can travel downwind, where they can affect the health of people and livestock far removed from a drilling site.³²

In addition to health impacts, flaring contributes to British Columbia's greenhouse gas emissions. Methane's global warming potency is 20 times greater than carbon dioxide. The practice undermines the government's greenhouse gas reduction targets, as well as its commitments to eliminate flaring by 2016.³³



Cumulative Impacts

Coalbed methane projects are not built well-by-well. Coalbed methane fields are typically developed in their entirety with hundreds or thousands of wells - or not at all. Therefore, the impacts and risks associated with a project in its entirety must be considered before development proceeds.³⁴

In British Columbia CBM is regulated by the same laws as other types of gas even though CBM creates many unique impacts which need to be addressed specifically. CBM wells often produce gas for 40 years and need hundreds or thousands of wells, resulting in hundreds of flares and vast quantities of Produced Water.³⁵ The number of wells in close proximity in combination with the length of time CBM is being extracted create a large cumulative impact on the surrounding environment.

Well Spacing

Coalbed methane wells generally require much denser spacing than conventional gas wells. The infrastructure necessary for CBM operations includes wells and well pads, roads, compressor stations, gas flares and pipeline rights of way, which have the potential to dramatically alter the land. Each of the hundreds or thousands of wells needed for CBM operations can disturb three to four acres of land, which cumulatively alters an enormous area, and displaces wildlife.³⁶

Seismic Testing

Prior to choosing locations for CBM development, operators frequently use seismic testing to identify the depth, shape and composition of underground formations.³⁷ Seismic surveys typically require clearing several kilometres of land in a straight line above the potential deposit. This leads to the loss of trees, carbon sinks, and soil erosion and compaction. In addition, seismic testing can result in stream and groundwater contamination through improperly capped seismic holes, alteration of drainage patterns and destruction of habitat.³⁸

Noise Pollution

CBM operations can also produce a lot of noise, from truck traffic, drilling and completion activities, well pumps and compressors. For some landowners, noise from oil and gas operations is so loud that it makes them feel as if they are living in an industrial zone.³⁹ In addition to noise, the visual impact of CBM operations results in the industrialization of the landscape.

Top: Well's head Photo: peffs

Middle: Processing facility typifies the industrialization of the landscape that accompanies CBM development. Aerial view from December 2003
Photo: SkyTruth/Bruce Gordon

Bottom: Noise from truck traffic Photo: Oil & Gas Accountability Project



Who Has Jurisdiction Over CBM

Above:

Skeena watershed,
an area under threat
of CBM development

Photo:
Brian Huntington

There are a number of government ministries and agencies involved in regulating and approving CBM development. Below is a list of the main departments, along with an explanation of their roles.

Provincial Ministries and Agencies

There are a number of provincial laws intended to regulate coalbed methane activities in British Columbia. These include:

- BC Petroleum and Natural Gas Act
- BC Resource Road Act
- BC Weed Control Act
- BC Wildlife Act
- BC Environmental Management Act

Unfortunately, there are few if any mechanisms under these laws that empower citizens, communities or First Nations in the decision-making process about whether and how CBM extraction will proceed in any specific location.

Ministry of Energy and Mines and Petroleum Resources (MEMPR)

MEMPR is tasked with managing the development of British Columbia's energy, mining and petroleum resources. Actually the mandate is for the "responsible development" of these resources. However, there is controversy about how effectively the Ministry has internalized the "responsible" portion of its mandate.

MEMPR has jurisdiction under many of the laws listed in the previous section. As a result, MEMPR is the primary agent developing the regulatory policy for oil and gas resources in the Province. In addition, MEMPR manages the right to Crown-owned subsurface resources, which are auctioned off at monthly oil and gas rights auctions.⁴⁰

Although MEMPR's reputation is improving, the Ministry is considered by activists to be among the most difficult ministries with which to engage and communicate due to its history of being perceived as an advocate for the industries it regulates.

Ministry of Environment (MOE)

MOE is involved in overseeing certain aspects of coalbed methane activities in British Columbia. In addition to responsibilities over wildlife, MOE is also involved in regulating water. MOE is tasked with ensuring implementation of the government's commitment to prohibit the surface discharge of Produced Water. They have amended the Oil and Gas Waste Regulation to require that Produced Water is disposed of in underground caverns.

Historically, MOE has been perceived as a Ministry that has been unable to stand up to the more powerful revenue-generating ministries, such as the Ministry of Forests throughout the 1980s and 1990s, and MEMPR in recent years. This continues to be the perception, particularly in the areas of compliance enforcement and regulatory affairs.

Oil and Gas Commission (OGC)

The OGC is supposed to be responsible for regulating and reviewing applications for oil and gas activities. The OGC is responsible for ensuring that the approved applications are in the public interest, having regard to environmental, economic and social effects. In addition, the OGC is mandated to try to encourage the participation of First Nations and Aboriginal peoples in the processes affecting them.⁴¹

The OGC relies on the oil and gas industry to ensure ongoing, proactive self-inspection and mitigation. On occasion the OGC will conduct site inspections, using a risk-based system to determine when and where. It will also respond to events and complaints.⁴²

In recent years there has been a decline in inspections by the OGC and a rise in reliance on operators' self-inspection. In 2003, the OGC issued 49 tickets for non-compliance, "with penalties ranging from \$230 to \$575—little more than the cost of a speeding ticket."⁴³

There have been cutbacks in staff responsible for compliance and monitoring, despite the increase in oil and gas activities. The current model of industry-led compliance monitoring is problematic, because it allows industry—which has the greatest incentive not to comply with regulations—to say whether it is complying. Cutbacks in inspections and monitoring staff mean that the persistent problem with oil and gas compliance will likely continue.

Given that its funding comes from the industry that it is tasked with regulating, many British Columbians believe the OGC prioritizes the interests of the oil and gas industry over the broader public interest.

Mediation and Arbitration Board (MAB)

The MAB provides dispute resolution services between landowners and companies that own sub-surface tenure who cannot agree on the amount of compensation the gas company should pay for surface access.⁴⁴ If an agreement cannot be reached, MAB will determine an appropriate amount of compensation and issue an entry order, which allows gas companies to enter the landowner's property.⁴⁵

Many landowners report being dissatisfied with MAB's efforts and decisions, and various reforms (described below in the section on Dispute Resolution on page 15) are in progress.

British Columbia Environmental Assessment Office (BCEAO)

The BCEAO coordinates the assessment of proposed major projects in the Province. The Office is supposed to work with First Nations, government agencies and the public to ensure that projects are developed in a sustainable manner. The assessment process examines major projects for potentially adverse environmental, economic, social, health and heritage effects.⁴⁶

Although CBM projects are developed on a large scale, the projects themselves are not subject to environmental assessment unless the Minister of the Environment or a CBM operator requests an environmental assessment. (See section on Environmental Assessment Process on page 17)

Federal Government:

Within British Columbia, a CBM project may come under federal jurisdiction if a project is on federal land. This would occur for CBM projects proposed for Indian lands and reserves, military facilities and national parks.⁴⁷

CBM could also be federally regulated if the proposed CBM development affects fisheries. The *Fisheries Act* could regulate Produced Water as a deposit of a deleterious substance in or near water that might be occupied by fish. However, regulation under this Act has become unlikely in the wake of the BC government's requirement that all Produced Water be re-injected into the ground.⁴⁸

A final trigger of federal jurisdiction is "the requirements for regulatory approvals for water body crossings by pipelines under the [federal] *Navigable Waters Protection Act* (NWPA) and the *Fisheries Act*."⁴⁹

The purpose of the NWPA is to protect navigable waters. It is described as:

"a federal law designed to protect the public right of navigation. It ensures that works constructed in navigable waterways are reviewed and regulated so as to minimize the overall impact upon navigation."⁵⁰

In addition, on federal lands, certain CBM proposals may trigger Canada's *Species at Risk Act* if they would have an impact upon federally listed endangered or threatened species.

Note: Recently, the federal government has weakened laws protecting waterways. Amendments that undermine the Navigable Waters Protection Act were rushed through Parliament as part of the 2009 budget. The full extent of these changes was not yet clear at the time this Guide went to print.



The CBM Approval Process

Above:
Gas wells encroaching
on the Roan Plateau
near the town of
Rulison, Colorado
Photo: SkyTruth

There are two phases to the approval process for coalbed methane drilling in British Columbia. First, there is the granting of tenure by MEMPR. Second, the OGC approves the operational details related to wells and other infrastructure. Neither process has effective mechanisms to engage individuals or communities.

Generally the granting of rights to explore and drill for coalbed methane is handled by MEMPR with referrals to local governments, First Nations and provincial agencies. These rights are called tenures. Although the BC Energy Plan commits to ensuring that companies must fully engage with First Nations at all stages of development, many First Nations report inadequate consultations at best.

The approval process for CBM activities requires CBM operators to:

- obtain subsurface rights to the CBM from MEMPR;
- complete a public engagement process related to operational issues for the OGC; and
- negotiate a surface lease with landowners.

Although the OGC requires CBM proponents to involve the affected public in operational planning, few affected parties report these efforts as satisfactory. In fact, it is the inadequacies of these processes that have contributed to the series of protests that have accompanied attempts to expand CBM operations in the Province.

Finally, despite CBM's large cumulative impact, the normal process to consider the full complement of potential impacts—i.e., environmental assessment—is not generally required before beginning CBM exploration and drilling. Many believe that the exemption of CBM from environmental assessment enables projects that will have significant impacts on land and wildlife to be approved without the public or First Nations learning of the nature and degree of the impacts.

Obtaining Subsurface Rights to CBM in BC

Some of the controversy surrounding the expansion of CBM in British Columbia flows from inadequacies in the tenuring process. In British Columbia, most landowners do not own subsurface rights to petroleum, natural gas, or minerals found below the surface of their property. The majority of subsurface rights are owned by the Crown.

MEMPR can grant subsurface rights to CBM operators to explore and develop subsurface resources on a landowner's private property.⁵¹ Many landowners are not aware that they do not own the subsurface rights to their land until they are notified of the pending sale of the subsurface rights. In fact, many landowners have not become aware of CBM until an agent of the CBM right holder contacts them.

Subsurface rights to oil and gas in British Columbia are generally sold once a month by MEMPR in a public auction. When a CBM company is interested in obtaining gas rights in a specific area, it requests that the area be included in the monthly tenure auction.⁵²

When a parcel of land comes up for tenure, the proposal for that land is generally circulated to other ministries, local governments, First Nations, and other stakeholders for review and comment.⁵³ This review is supposed to allow for the identification of potential land use conflicts, but potential conflicts and controversies are frequently overlooked at this stage. The concerns raised during the public comment period can be included in the notice for public tender, which may become part of the land tenure document if tenure is issued.⁵⁴

In rare situations, MEMPR circumvents the public auction and invites interested parties to approach them directly to negotiate tenure on specific properties. This is what happened with the tenures granted to Shell in the Sacred Headwaters (Klappan) and in Telkwa.

The Disposition of Tenure

Details of tenure sales (“dispositions”) are published in the BC Gazette, and notice is mailed to interested parties. This notification process is often not adequate, because concerned citizens may not have access to the Gazette or the time to ensure that they are keeping abreast of new issues of the Gazette.

When the CBM rights to a parcel of land come up for sale, citizens who do learn of the auction may have the opportunity to comment before tenure is granted, during the public comment period. Citizens’ comments and restrictions may be posted on the land when tenure is granted to the CBM operators.

Public Consultation on CBM

Once an operator is granted tenure, they are supposed to complete a public engagement process before it receives approval to explore or construct wells. The public engagement process is supposed to provide a forum for the affected public to express concerns regarding the proposed CBM activities.⁵⁵ However, in virtually every community where CBM has been proposed, this process has been marred by controversy. Most of the First Nations, municipal governments and concerned citizens that have been involved in CBM issues are highly critical of the consultation process.

The OGC Process

After tenure is granted the OGC takes over the consultation process from MEMPR. The OGC defines the affected public as “stakeholders ... who are ‘directly and adversely affected’ by oil and gas operations.” People will be “adversely affected” if “they are affected in a different way or to a greater degree than other members of the public;

or they can show a connection between the oil, gas or pipeline activity that is proposed and the rights and interests that may be affected; or their complaint relates to a property right or other economic interest.”⁵⁶ The OGC does not require engagement of citizens that do not fit this definition of the affected public. In theory CBM operators are required to complete a public engagement plan that includes:

- Identifying the affected public;
- Notifying and informing the affected public, providing a description of the project in plain language;
- Designing and holding meetings to get input from the affected public;
- Resolving concerns early, using enhanced negotiation and appropriate dispute resolution; and
- Keeping track of the engagement process by preparing reports.⁵⁷

CBM operators are required to notify local governments, First Nations reserves and tenure holders within 1.5 km of the CBM well of the proposed development. In addition, they are required to consult landowners, occupants and residents, and tenure holders within 1 km of the well.⁵⁸ CBM operators are able to choose their own public engagement methods.

Once an operator submits an application to the OGC, the OGC will review it. This review is supposed to make sure that decisions are made in the public interest with regard to environmental, economic and social impacts. However, affected communities and First Nations have raised serious concerns about how (and whether) the OGC fulfils this responsibility.

Public input may be used by the OGC to determine the timing of the project, the drilling method or location, the type of equipment used, and techniques for minimizing environmental impacts.⁵⁹

Thus, the public engagement process is generally used to help determine how the project goes forward, not whether the project should go forward. Many people with experience with the OGC question the impartiality of the OGC process and the extent to which participation can actually influence the outcome of a proposed project.

New Approaches to Consultation

In response to criticism from communities and First Nations throughout British Columbia, MEMPR is developing a new *Notification & Consultation Regulation* to support the new *Oil and Gas Activities Act* (OGAA).

MEMPR has advised Dogwood Initiative that:

“This new regulation sets out the notification and consultation requirements operators are required to carry out before submitting an application for permits to the OGC.”⁶⁰

“Notification and consultation requirements under this regulation may vary depending on the nature of the resource, the proposed oil and gas activities, and the various approvals, such as water use and disposal, required to undertake the activities.”⁶¹

Whether these new notification and consultation processes will address the concerns raised to date are unknown. Only time will tell.

Resolving Disputes

The OGC is supposed to encourage the independent resolution of concerns and problems associated with oil and gas applications and the related public engagement activities. For the most part the affected public is expected to negotiate and communicate with CBM operators, who have an upper hand in terms of experience and understanding of the industry. If a conflict occurs during the public engagement process, or after the operator's application is submitted, then a dispute resolution process, which the OGC calls "Appropriate Dispute Resolution," is required.⁶²

If disputes arise the OGC is mandated to try to resolve them. The OGC is supposed to provide the parties involved with guidance, impartial information about the issues in dispute, including technical and scientific information, and advice on the OGC's regulations, interim directives, and policies, rules and practices.

The OGC may also play a more direct role as a facilitator in the dispute resolution process, to help the parties reach a mutually agreeable solution that meets the OGC's regulatory requirements. To request that the OGC step in as a facilitator, the public can notify the OGC of its concerns with the public engagement or dispute resolution processes. This request must be in writing, using the Notice of Unresolved Concerns form (NUC). This form is available at: <http://platypus.ogc.gov.bc.ca/documents/forms/communications/ogco72noticeunresolvedconcern.pdf>.

If an affected party believes the OGC erred in the decision-making process, it can submit an application for "reconsideration" to the OGC Advisory Committee. The Advisory Committee brings together a broad range of interests and varied perspectives. The request for reconsideration must be received by the Advisory Committee's Secretary within fifteen working days of the original approval date. The Committee will review the record and written arguments of the parties, and can, if it so chooses:

- Request that the Commissioner reconsider the original decision and process with consensual appropriate dispute resolution;
- Decline the request; or
- Make recommendations as a result of the review.

Many of those involved in disputes to date have criticized the OGC's impartiality, arguing that they tend to side with proponents from the oil and gas industry.



Community resistance
to CBM in the Bulkley Valley.
Photo: Pat Moss

Landowners' Rights

The cavalier approach to approaching landowners of many of the CBM proponents has caused significant controversy throughout British Columbia. CBM operators do not need to obtain consent from landowners to conduct land surveys. However, CBM operators are required to obtain consent from landowners to conduct geophysical exploration (seismic testing). Geophysical exploration can be done using explosive or non-explosive methods.⁶³

If the CBM operators find CBM potential through seismic testing, the operator will then apply to the OGC for approval to build a well. This application triggers the provincial approval process described above.

Surface Use Agreement and Compensation

If the well site is on private land, the CBM operator is required to negotiate a Surface Use Agreement (SUA) with the landowner.⁶⁴ Other agreements may be necessary between operators and landowners for the development of pipelines and roadways.

If a CBM operator and landowner cannot agree on a Surface Use Agreement (including compensation), then the dispute will be handled by the Mediation and Arbitration Board. The MAB may allow the gas company access to the landowner's property as long as compensation, in the amount determined by the MAB, is provided.

Operators do not have much incentive to reach an agreement with landowners, because they know that if negotiations fail they can always get an entry order, and are virtually guaranteed entry if they provide appropriate compensation.

When negotiating a Surface Use Agreement, landowners do not have the power to stop operations on the surface of their property, they only have the opportunity to try to limit the impact of CBM operations and to determine compensation.

If an affected party believes the OGC erred in the decision-making process, it can submit an application for "reconsideration" to the Advisory Committee, as described in the previous section.

New Approaches to Landowner Consultation and Dispute Resolution

In response to the ongoing conflicts with landowners, MEMPR has established, or is in the process of establishing, a number of new programs. These include:

- an Independent Farmer's Advocate;
- a regional "good neighbour" initiative between companies and landowners;
- a Land Agent Code of Conduct; and
- an enhanced role for the Mediation and Arbitration Board.⁶⁵

The Independent Farmer's Advocate is supposed to be an independent position that will work directly with private landowners to help them understand property rights, identify potential agricultural implications, and improve negotiations with the oil and gas industry. MEMPR has indicated that the Farmer's Advocate will provide direct information and support to landowners who are engaging industry.⁶⁶

MEMPR in co-operation with industry is also planning to implement a regional “good neighbour” initiative between companies and landowners. This will help resolve focus will be on matters of community concern such as speed and dust control of trucks.⁶⁷

MEMPR has developed a Land Agent Code of Conduct in collaboration with the northern community and oil and gas industry representatives. As part of these efforts MEMPR plans to review professional designation and licensing requirements for land agents, and the OGC will receive and track reports of non-compliance and provide reports back to the ministry.⁶⁸

MEMPR is considering an enhanced role for the Mediation and Arbitration Board to further improve processes for landowners. This role may include reviewing compensation requests from landowners for damage from an activity, and assistance in resolving disputes arising from non-compliance with the surface lease agreement.⁶⁹

It is too early to tell whether these reforms are sufficient to resolve many of the concerns landowners have had with the CBM approval process to date.

Regional Energy and Mines Advisory Committees

In addition to the above, the provincial government has established regional energy and mines advisory committees.⁷⁰ These committees are intended to “provide community stakeholders with an avenue for input on energy, mining and petroleum issues that impact the use and enjoyment of property and community life”⁷¹ in their region. Regional committees have been established in the Northeast and Southern Rocky Mountains.

MEMPR attributes many of the reforms listed above to the suggestions made by these regional advisory committees.

Environmental Assessments

Provincial Environmental Assessments

In British Columbia environmental assessments are generally not required prior to exploring or drilling for coalbed methane. Environmental assessments are only required if certain triggering events occur.

The triggers are defined in the *Reviewable Projects Legislation*. They are:

- a well is designed to produce water at a rate greater than 75 litres a second; or
- a pipeline’s diameter is:
 - less than 114 mm and the length is greater than 60 km; or
 - between 114 and 323 mm and the length is greater than 50 km; or
 - greater than 323 mm and the length is greater than 40 km.⁷²

In addition to the triggering events, environmental assessments may be conducted if the Minister or the operator requests one.

When required, environmental assessments are conducted by the BC Environmental Assessment Office (BCEAO), an independent provincial agency that coordinates assessment of the impacts of major development proposals in British Columbia. The BCEAO reports to the Minister of Environment.

The BCEAO is tasked with identifying and mitigating potential adverse impacts from development and operations such as pipeline construction. Powers and responsibilities of the BCEAO are set out in the *BC Environmental Assessment Act* (BCEAA).⁷³

The *Environmental Assessment Act* is based on five main principles:

1. Access to information by all interested parties;
2. Balanced decision-making by government;
3. Comprehensive environmental assessments;
4. Consultation with all potentially affected parties; and
5. Flexibility of assessment methods and procedures.⁷⁴

Provincial environmental assessments follow an eight-step approval process.

A proposed project must first be considered “reviewable.” Projects are considered reviewable if:

- their type is listed in the Reviewable Projects Regulations;
- the responsible Minister determines the project is reviewable; or
- the proponent asks the EAO to consider the project as reviewable.⁷⁵

However, the Executive Director of the EAO may exclude projects from the provincial environmental assessment process even if projects are included in the Reviewable Projects Regulation.⁷⁶

The BCEAO was weakened in a major revision in 2002, giving the BC Cabinet and individual ministers extraordinary powers to overrule provincial or local government laws if they constrain development processes.

Furthermore, other provincial statutes have changed the BC environmental assessment process. In 2003, the government passed the *Significant Projects Streamlining Act* (SPSA). Essentially, the SPSA gives the BC Cabinet and individual ministers extraordinary powers to override provincial or local government laws, regulations or bylaws if they are perceived as being constraints to development projects that the government designates as provincially significant.⁷⁷

In effect, even though the SPSA states that the province must meet all requirements of the BC Environmental Assessment Act, provincially significant projects may be exempt from environmental assessment or other review processes.

When the BCEAA was amended in 2002, mandatory requirements for project committees and First Nations participation were eliminated. As a result, there is ambiguity regarding the amount of influence First Nations will have over regulatory processes for operations in their territory.

The two most important steps in the BC environmental assessment process are the “Project Terms of Reference” and a “Section 11 Order”.

Setting the project's terms of reference is the first of these steps. Public participation in developing the terms of reference helps to ensure that community values and public goals for community development are considered in project planning and decision making. The terms of reference specify the:

- scope of the environmental and socio-economic studies necessary to assess the impact of the proposal on the environment and communities;
- consultation programs required to engage the public and First Nations;
- information that needs to be included in the environmental assessment application; and
- requirements for the mitigation of project impacts.⁷⁸

The terms of reference will be used to identify the information that a CBM operator must include in its application for an Environmental Assessment Certificate. Proponents are required to submit the draft terms of reference for regulatory review and approval.⁷⁹

A provincial environmental assessment is likely to consider the project's potential effects on:

- aquatic species and habitat;
- terrestrial ecosystems, vegetation, and wildlife;
- land use and socio-economic/socio-community and cultural conditions;
- visual landscape and recreational resources;
- hydrology, soils, terrain, and natural hazards;
- First Nations' traditional knowledge and use;
- heritage and archaeological resources;
- navigation, transportation and utilities;
- contaminated sites; and
- public health issues.

Other topics may be added during the preparation of the terms of reference or the assessment itself.

The Section 11 Order defines the terms and procedures for conducting the required environmental assessment process, including the requirements for the public consultation process for the assessment. Ensuring that these Orders include real opportunities for public engagement should be an important priority for groups concerned about proposed CBM operations.

Federal Environmental Assessments

Groundwater extraction may also come under the purview of the *Canadian Environmental Assessment Act* (CEAA), if land under federal authority is affected. In British Columbia this would include land covered by Aboriginal rights and title.⁸⁰

The *Canadian Environment Assessment Act* is triggered when the rate of groundwater extraction exceeds 200,000 cubic metres per year (about 7 litres per second) or if modifications are made that increase the well's production capacity by more than 35 per cent.⁸¹



Above:
Community resistance
to CBM in the Bulkley Valley.
Photo: Pat Moss

Citizen engagement is critical. In cases where coalbed methane projects have been rejected, the decision is mostly attributable to public concern and pressure generated by good old-fashioned organizing and agitating.

None of the government approval processes for CBM are ideal if you have concerns about a project. None of the processes allow affected people to engage and influence whether a CBM project proceeds or what conditions are attached to its approval. Each process has limitations in scope or effectiveness for addressing certain types of issues.

In every step of CBM development, there is an opportunity for citizen involvement. The earlier citizens are involved in the approval process the greater the chance that the project will take into account and address citizens' concerns.

Citizens can get involved through:

- Commenting on the disposition of tenure;
- Participating in the public engagement process;
- Asserting landowner rights;
- Requesting and participating in the environmental assessment process;
- Applying to the Environmental Dispute Resolution Fund to get legal support in order to participate effectively.

It is important, therefore, for citizens to be as informed as possible about the range of processes that could be an opportunity for affected communities and First Nations, groups or individuals to intervene when CBM projects are proposed. Below we outline the best opportunities in some of the more important processes.

Organizing and Agitating

Numerous CBM proposals throughout British Columbia have been cancelled, abandoned or rejected because of organized opposition. Some of this organized opposition has been applied within regulatory processes; however, most has been aimed directly at political representatives and decision-makers.

Whether one wants to stop a CBM proposal or modify it to address specific concerns, organizing those sympathetic to your views, raising the profile of your concerns, and directing pressure towards key representatives and decision-makers increases the chances of a good outcome.

Residents of Smithers and Telkwa, Hat Creek, Princeton and Fernie have all stopped CBM proposals by getting organized, raising the profile of their concerns and pressuring the key decision-makers.

Tahltan people of all ages have organized themselves and stood together to protect their Sacred Headwaters from Royal Dutch Shell's plan to drill for coalbed methane near the headwaters of the Nass, Skeena and Stikine.

These courageous people used a variety of new and old tactics to become formidable advocates for their positions, including:

1. door-knocking campaigns to educate affected residents about the impacts of CBM;
2. confronting CBM promoters directly in communities and at corporate headquarters;
3. distributing documentaries about CBM on DVDs at the door and via mail drops;
4. surveys of local residents that document public attitudes about the project;
5. events that raised the profile of community concerns and garner media attention;
6. briefings of key elected officials throughout the region and in Victoria;
7. alliances with other community groups, First Nations and environmental groups that share their concerns;
8. blockades; and
9. organizing to ensure their local regional district passed a resolution against risks associated with CBM, and then working with other groups and communities to ensure this resolution was also passed by other municipalities, regional districts and the Union of BC Municipalities.

The efforts of the various communities that have succeeded in stopping CBM are a model for other communities, whether they want to stop a project outright or modify it.

Those who don't oppose CBM projects, but have specific concerns—such as the number or location of the wells, the noise from the compressors, the disposal of Produced Water or maintaining other environmental safeguards—should also organize and agitate.

Unfortunately too often both in our political system and in most regulatory processes it is the squeaky wheel that gets the grease. To have an impact, concerned people need to become squeaky and demand some grease, whether the grease is changes to the project itself or alterations to the decision-making process.

Democracy requires eternal vigilance. It is those citizens, First Nations and communities who demand to be heard, who demand that their concerns be addressed, that usually do best under the current system.

Members of the Tahltan First Nation block the main access road into the Sacred Headwaters.

Photo: Klabona Keepers Society



Participating in the Public Engagement Process

Those concerned about coalbed methane operations near their communities need to get active quickly when projects are proposed.

There are two stages at which the public can intervene:

1. Prior to tenure being issued; and
2. Before well authorizations are approved.

The best chance to positively influence outcomes is to intervene before tenure is issued. There is scant official process at this stage, so to be successful affected parties need to prepare to “go political.”

Engaging Prior to Tenure Being Granted

The first issue people face is finding out what is being proposed—the where, when and by whom. This requires dedication, since there is little public notice before areas are made available at the public auction, and even less notice of direct invitations to interested companies.

Although information is provided in the BC Gazette, few people are aware or familiar with such notices. For example, in the Sacred Headwaters, Shell Canada was issued tenure before most Tahltan became aware that the headwaters of the Stikine, Skeena and Nass had even been targeted for exploration and drilling.

One of the best ways citizens can ensure they are aware of tenure sales is by contacting the MEMPR's Oil and Gas Titles Division and asking to be included on the mailing list for disposition notices or accepted offers in their area. The Oil and Gas Titles Division website is: <http://www.empr.gov.bc.ca/Titles/OGTitles/Pages/default.aspx>.

A final way to be involved in the tenuring process is to approach your local government and ask them to petition MEMPR to have a buffer zone established around your municipality. The minister has the power to withdraw certain areas from disposition, creating a buffer zone. Local governments can take advantage of the comment period to seek support for local land use priorities.

Providing comments is just the first step. Most communities, First Nations and concerned individuals that have effectively engaged CBM projects have succeeded by ratcheting up the political pressure. In other words, those that have limited themselves to engaging within the prescribed notice-and-comment processes have been frustrated.

The tactics to generate political pressure are limited only by one's imagination. (See the Organizing and Agitating section on page 15 for a list of some of the tactics concerned citizens, First Nations, municipalities and community groups have used to mobilize public and political support.)

Engaging OGC about Operational Issues

After tenure is granted, there are more transparent avenues for public engagement, but less opportunity to substantially modify the proposal.

As noted above, once tenure is granted, but before site operations are approved, CBM operators are required to notify local government, First Nations reserves and tenure holders within 1.5 km of a well of pending CBM activities. In addition they are required to consult landowners, occupants, residents and tenure holders within 1 km of the well.⁸² This is the second most important phase to begin organizing like-minded people around your concerns.

In addition to the consultation and notification requirements, a concerned citizen may take part in the public engagement process if the citizen qualifies as a member of the "affected public." The OGC defines the affected public as stakeholders who are directly and adversely affected by oil and gas operations. Citizens are adversely affected if "they are affected in a different way or to a greater degree than other members of the public; or they can show a connection between the oil, gas or pipeline activity that is proposed and the rights and interests that may be affected; or their complaint relates to a property right or other economic interest."⁸³

When CBM operators apply to the OGC for project approval they are required to submit the results of their public engagement. The OGC reviews the results of the public engagement and may use them to determine the timing of the project, the drilling method or location, the type of equipment to be used, and techniques for minimizing environmental impacts. Make sure the company has adequately recorded your concerns and that the volume of support for your position is properly framed.

Dispute Resolution

The OGC has developed mechanisms for dealing with disputes. If someone has concerns that are not addressed during the public engagement process, or are not adequately reflected in the documentation given to the OGC, they can initiate a complaint process by filing a Notice of Unresolved Concern (NUC) that notifies the OGC that an 'affected party' is concerned about a proposal.

The NUC serves many purposes: it provides the OGC with an opportunity to consult as well as provides specific information that begins to form an official record that will be used in the decision-making process.

The OGC recommends that people with complaints “be specific about their concerns and what is being done [or not done] to resolve them.”⁸⁴

The OGC is supposed to follow up when it receives a NUC and offer dispute resolution.⁸⁵

The NUC form can be obtained from the OGC website at: <http://platypus.ogc.gov.bc.ca/documents/forms/communications/ogco72noticeunresolvedconcern.pdf>.

If you feel there was an error in the public engagement and dispute resolution process, you can apply for a “reconsideration” of the decisions by the OGC Advisory Committee. (See the Resolving Disputes section under Public Consultation on CBM, on page 15, for more on these options.)

Again, although there are some defined avenues for engagement, most affected parties have had to mobilize political pressure to address their more substantive concerns.

Asserting Landowner Rights

Landowners can check whether there is an active subsurface tenure overlapping their property by performing a search using the petroleum tenure system and their Tax Roll number on the Oil and Gas Titles Division website at: <http://www.empr.gov.bc.ca/Titles/OGTitles/Pages/default.aspx>.⁸⁶

In addition, landowners can work to limit the impact of CBM development on their property by ensuring they have a comprehensive Surface Use Agreement and the information required to make the necessary decisions regarding their property.

(See Appendix A: Negotiating a Surface Use Agreement for an example of what can be included in a comprehensive surface use agreement, some guidelines for compensation, and what questions can be asked of operators to limit the adverse effects of CBM development.)

If landowners are not satisfied by the compensation or terms for entry offered by CBM proponents they can approach the Mediation and Arbitration Board for help.

First Nations’ Engagement

It is still an open question who has title to the majority of land in British Columbia. Canadian courts have directed the BC Government to consult and accommodate First Nations whose lands are affected by industrial activities like coalbed methane. The degree to which the government has genuinely modified its laws and practices to engage First Nations continues to be under dispute.

Both First Nations and the Crown agree that consultation is required by law at all stages of development. However, the depth of the required consultation and the degree that First Nations interests are accommodated is a controversial issue.

While generally MEMPR refers tenure requests to First Nations, many First Nations—particularly those in the Northeast—report that they are given inadequate time, information and resources to evaluate the referrals.

The OGC has a duty to consult First Nations for potential infringement of Aboriginal or treaty rights on all applications for activity. However, the OGC generally delegates the responsibility to engage with First Nations to the proponent company.

As with non-natives, those First Nations that have ratcheted up the political pressure and legal leverage in relation to their concerns about CBM projects—particularly in the pre-tenure stage—have achieved the best results.

Engaging the Environmental Assessment Process

CBM does not come directly under the purview of the *British Columbia Environmental Assessment Act*; however, concerned citizens can ask the minister or project operator to request an environmental assessment on a proposed CBM project.

Public participation in the environmental assessment process is supposed to ensure that community values and public goals for community development are considered in project planning and decision-making.⁸⁷

If an environmental assessment occurs, citizens can get involved in the pre-application phase during the development of the terms of reference. In the pre-application phase consultation is required among federal, provincial and municipal agencies, the public, and First Nations. This phase starts with the formulation of draft terms of reference by the CBM operator and the publication of this draft for a public comment period. Early engagement, particularly by affected First Nations, in defining the terms of reference for the environmental assessment of CBM projects should be a priority for any group with concerns about specific projects. Ensuring good terms of reference does not ensure a positive outcome, but bad terms of reference that do not include the full scope of the proposed project or that leave out relevant information make it difficult to achieve good outcomes.

Additional consultation occurs during the review of the application for an Environmental Assessment Certificate, during the preparation of the draft assessment report, and thereafter where deemed appropriate by Executive Director of the BCEAO.⁸⁸ Reports on all consultations are forwarded to those consulted. The operator must respond to all issues relevant to the CBM project that are identified during consultations.

Funding through the West Coast Environmental Dispute Resolution Fund can help remedy the power imbalance between citizens and CBM operators and help concerned citizens participate effectively in public engagement processes. West Coast Environmental Law, in Vancouver, manages applications to the fund. (See WCEL's website, <http://www.wcel.org/services/edrf/>, for details.)

What Will Be Done With the Results of the Consultations?

When an environmental assessment does occur, the results of consultation and studies undertaken during the assessment will become part of the Environmental Assessment Certificate application to the BC Environmental Assessment Office. The results will also be used to design mitigation measures which may be recommended “where appropriate” and written into the project’s design to avert potential adverse effects of the project.⁸⁹

After the public consultation is over and the BCEAO has considered the application for an Environmental Assessment Certificate, the Office will then make recommendations to the relevant ministers, who have 45 days either to issue the Certificate, issue a Certificate with conditions, reject the application, or request further information or studies. All documentation from the assessment process, including submissions from the public, is posted on the BCEAO’s website, www.eao.gov.bc.ca.

Any decision by Ministers or the Executive Director of the BCEAO is potentially subject to judicial review, though the scope for such review is limited under the Act. This is because of the highly discretionary nature of the provincial environmental assessment process.

Holding Proponents to their Commitments

In response to strong public opposition, CBM proponents often make commitments to affected groups. For example, during a community meeting surrounding the CBM proposal in Telkwa near Smithers, the CEO of Outrider Energy (the then proponent) promised not to proceed if the “majority of the local community” opposed the project. On its face that appears to be a straightforward commitment. Unfortunately things were not quite as they seemed.

In the face of mounting evidence that the community of Telkwa (and surrounding Bulkley Valley) wanted little to do with coalbed methane extraction, there seemed little choice but for Outrider to respect the community’s wishes. Citizens had conducted a poll that showed that 70% of residents felt that the risks of the project outweighed its potential benefits. A survey distributed by the local group Citizens Concerned about Coal Bed Methane revealed that of the over 1400 respondents, 97% opposed the project. Over 400 residents also showed up en masse at public meetings, asking tough questions and getting little in the way of satisfactory answers. Large demonstrations were becoming a frequent occurrence.

The community delivered an emphatic “No.” Outrider announced it was pulling out. That should have been the end of the story.

Unfortunately it was not. The provincial government insisted that it has the right to grant coalbed methane tenures even in the face of overwhelming community opposition. A new proponent suddenly came forward. Norwest Corporation replaced Outrider and claimed it was always the principal proponent of the project, and was not beholden to Outrider’s promise.

Those who attended public meetings in the region remember that Norwest’s Senior Vice President had been at the earlier meetings, introduced as Outrider’s “technical consultant.” Norwest Corporation had in fact been there all along, taking no questions and making no promises.

In what looks like a classic bait and switch, Norwest, which had engaged in no consultations and made no commitments, suddenly became the proponent when Outrider’s promises became an impediment.

The fact that MEMPR didn’t require Norwest to begin the consultation process again after the Outrider switcheroo illustrates the inadequacy of the public participation laws on oil and gas. Ultimately the opposition of concerned citizens and First Nations in the region killed the Telkwa project—at least for the time being—but not without a fight and some shady attempts to circumvent commitments made.

This example illustrates the need for affected people to be persistent. Those concerned about CBM proposals need to ensure the proponents live up to their commitments and that regulatory and approval agencies respect them as well.

Best Practices for Engaging CBM Proposals

After consulting with a wide range of experienced activists, Dogwood Initiative has put together the following recommendations for people facing coalbed methane exploration and drilling in their neighborhood.

1. Those confronted with a CBM proposal need to organize people sharing similar concerns into a politically formidable group. (See *Citizens Concerned About CBM* for information on how other communities have organized themselves. Their website is: <http://www.concernedaboutcbm.org/>.)
2. Landowners should register with the MEMPR Title Office to ensure that they be alerted as an interested party if the subsurface rights below their property come up for tenure. Other citizens concerned about a particular area should register their interest in that parcel through the Title Office, so that if it comes up for tenure, they will be alerted as an interested party. The MEMPR Oil and Gas Titles Division website is: <http://www.empr.gov.bc.ca/Titles/OGTitles/>.
3. Concerned citizens should write to the Minister of the Environment to request that CBM operations undergo an environmental assessment. The BC Environmental Assessment Office website is: <http://www.eao.gov.bc.ca/>. Citizens can also encourage CBM operators to opt in to the environmental assessment process to ensure that their operations are done in a way which will avoid conflict and to showcase their willingness to practice corporate responsibility.
4. Concerned citizens should seek to have their comments included on tenure dispositions before they are granted, so the development of CBM proceeds in a manner which takes into account public interest, not just business interests.
5. During the public engagement or consultation process, if there is a geographical area where the development of CBM would pose particularly high ecological or social costs, concerned citizens should propose no-go zones where CBM development must not occur. No-go zones can be used to ensure that if CBM development proceeds it is being done in a manner which will have the least environmental, health and social impacts.
6. Anyone who has concerns about a CBM project should file a Notice of Unresolved Concern to ensure that his or her concerns form part of the formal record which is reviewed by the OGC during its decision-making process. The Notice of Unresolved Concern form is available at: <http://platypus.ogc.gov.bc.ca/documents/forms/communications/ogco72noticeunresolvedconcern.pdf>.
7. Citizens should hold the government to its commitments to exercise the “Best Coalbed Gas Practices in North America.” Whether citizens are dealing with MEMPR, the OGC or CBM operators, they can request that best practices be used to limit the adverse impacts from CBM projects. (See *companion report entitled Coalbed Methane Best Practices for British Columbia for a list of the best practices from other jurisdictions in North America that the government would have to implement to meet its commitment to best practices*).
8. Citizens should apply for public funding or an Environmental Dispute Resolution Grant to help cover legal costs incurred to navigate the difficult and confusing public engagement process and to ensure their interests are being protected.



Opportunities for Law Reform

Above:

Skeena watershed,
an area under threat
of CBM development

Photo:

Brian Huntington

CBM projects have significant impacts on public health, the environment, local economies and wildlife. Because of the dense clustering of wells and the need to develop projects with hundreds or thousands of wells to be viable, the cumulative impacts of CBM operations are enormous.

There is currently no mechanism for landowners, First Nations, or concerned citizens to say “No” to CBM development, whether to a specific aspect of the CBM proposal or to the whole project. Generally communities and First Nations that have succeeded in keeping CBM out of their area have had to resort to aggressive political action, rather than the legal processes. Legal reforms could change this, but they will themselves require concentrated political will to achieve.

Fixing Environmental Assessment

The environmental assessment process is set up to consider the environmental impact of large projects, and yet CBM operations are not included as reviewable projects under the *Reviewable Projects Regulations*. It is important that the regulatory process for CBM operations be precautionary. If operators are unable to demonstrate that their operations will not adversely affect the water, air and health of surrounding populations, then the operation should not proceed.

Ensuring that CBM projects come under environmental review is an important first step to measuring the cumulative impact of CBM development. The *Reviewable Projects Regulations* should be amended to ensure that CBM development is subject to environmental review. This is especially important given the large cumulative impact of CBM operations. Because CBM is a new industry in British Columbia, there is very little information on how it will impact British Columbians.

Cumulative Impacts

Even if CBM operations become included under the *Reviewable Projects Regulations*, there is no guarantee that the cumulative impacts of CBM will be considered.

In 2002 a new *BC Environmental Assessment Act* was made law in British Columbia (BCEAA). The new statute substantially reduced the enforceability of environmental assessment legislation and regulation. The new BCEAA discards the mandatory triggers of the original Act in favour of leaving environmental assessments to the discretion of the Minister. The BCEAA needs to be strengthened in three particular areas: mandating what is now discretionary, aboriginal involvement, and intervenor funding.

Mandating What is Now Discretionary

In particular, the recent changes deregulate and decrease funding for environmental assessment, leaving a process with “no independence and no neutrality”.⁹⁰ Many people feel the current BCEAA has become a ticket for environmental degradation, and clearly puts short-term economic development over long-term environmental protection.”⁹¹

Since environmental assessments are discretionary, there is no guarantee that they will be conducted on CBM operations even if CBM is included in the *Reviewable Projects Regulations*.⁹² Under British Columbia’s *Reviewable Projects Regulations*, when an activity meets the threshold for review, it does not automatically trigger an environmental assessment; it merely triggers a decision by the Executive Director of the Environmental Assessment Office about whether an assessment will go forward. Under this legislation it is still possible that a reviewable project will not have any public review or any formal assessment process.⁹³ These discretionary triggers should be amended and made mandatory.

As a result of the discretionary nature of the *Environmental Assessment Act*, fewer projects are subject to review, and even the kinds of projects that are reviewed have much more leeway before an evaluation is triggered. New resource development projects are emerging as a result of the BC government’s intention to double oil and gas development in the Province. These initiatives are escaping public review and will continue to slip through until the BCEAA and related regulations are reformed.

Aboriginal Involvement

Another serious concern is that the BCEAA does not involve Aboriginal governments at the project committee level. The new Act removes reference to First Nations interests, except in section 29, which recognizes the Nisga’a Treaty. The *Environmental Assessment Act* should be amended to reflect the constitutional requirements for meaningful consultation with First Nations.⁹⁴ In light of the Supreme Court of Canada’s *Haida* and *Taku* decisions in 2004, it is surprising that the BC government has not been forced to make this reform already.

Intervenor Funding

Another key reform is to make the environmental assessment legislation support intervenor funding. The assessment process is complex and difficult to navigate without experienced counsel. Currently, communities, First Nations, affected groups and individuals can be forced to assume the costs of lawyers and experts to defend their interests against the legal power of project proponents. New mechanisms must be created to ensure that legal resources and experts are made available to affected groups throughout the assessment process, without the public participants having to bear the cost.

Having CBM operations undergo environmental assessment is an important step towards measuring the cumulative impact of CBM; however, environmental assessments on their own will not protect the public from adverse impacts from CBM operations. There is a need for truly rigorous best practices that all CBM operations must meet.

Implementing Best Practices Regulation

The laws and regulations associated with CBM are weak and do not fulfill the provincial government's commitment to have the best CBM rules in North America. CBM poses many unique impacts which need to be addressed in laws tailored specifically to mitigate the adverse impacts of drilling and exploration.

Enacting stronger laws to address the concerns of CBM development will help the government meet its 2007 Energy Plan commitment to have the best CBM practices in North America. *The specific reforms necessary to meet this commitment are detailed in the companion report entitled, Coalbed Methane Best Practices for British Columbia which provides an overview of the best practice standards in North America, and, for comparison, the best practices that the government has committed to meeting. New legislation and stronger regulations are needed to implement these best practice standards in BC.*

Examples of some of the best practices detailed in this report include:

- Major reforms to the approval and assessment processes to allow for more effective citizen and community engagement.
- Requiring operators to use green completions instead of flaring gas during the well testing phase, as is required under the Practice and Procedures Act in Colorado.
- Placing moratoriums on CBM development until legislation is developed to address the unique concerns around CBM. Moratoriums on CBM development have been put in place in many counties in New Mexico, to buy sufficient time to develop legislation which protects the public from the adverse impacts of CBM.
- Major reforms to the enforcement and compliance approach of the OGC are needed. Multi-agency oil and gas reviews conducted by the BC government have shown that there have been persistent problems with compliance within the oil and gas industry.⁹⁵



Appendix A:

Negotiating a Surface Use Agreement

When CBM operators want to begin developing CBM on a landowner's property, often a land agent is contracted to negotiate access to the private land with the landowners. In order to enter your land, the CBM operator needs to have either a signed surface lease agreement with you or a right-of-entry order from the Mediation and Arbitration Board.⁹⁶

Landowners are responsible for ensuring that their rights and interests are protected before signing a Surface Use Agreement.⁹⁷ CBM operators have the expertise and resources to take care of their interests when dealing with landowners. However, landowners are often left vulnerable because of their limited knowledge of the industry, the applicable laws and the implications of CBM development.⁹⁸

As a landowner, when you are approached by a CBM operator who has purchased the subsurface rights to your land, it is important that you take time to consider the potential impact and preferred outcome of the development.

In particular, landowners may want to consider:

1. What are your needs, concerns and interests?
2. The various development options and techniques the operator can use to limit the adverse effect on your property. In particular, are there specific areas on your property that you want protected and not have roads, pipelines or well sites constructed on them?

The questions outlined below are a non-exhaustive list of questions landowners may wish to ask CBM operators to help them determine the impact of CBM development on their land. Suggested questions have been adapted from the OGC's landowner guide.⁹⁹

Company and Project Information

- What is the name, address and telephone number of the company that would hold title to the subsurface rights?
- What is the name, address and telephone number of the company representative responsible for this area?
- Will a land agent represent the interests of the company holding title to the subsurface rights? If so, what is the name, address and telephone of the land agent and his/her company?
- What types of activities are proposed?

- What is the proposed time schedule for the activities, including commencement date?
- What is the expected completion date?
- Geophysical Testing Information
- Where will seismic line(s) be located?
- How will the company access the seismic lines?
- If a seismic line is constructed, how will it be constructed?
- What is the cut line width?
- Will timber be removed in the construction of a line?
- What method of seismic testing will be used?
- When will work start?
- When will it be completed?
- Will water quality and quantity testing be conducted on private water wells and/or water sources in the region before construction?
- Will water testing be conducted after seismic work has been completed?
- If a water well or water source is affected as a result of seismic work, what measures will the company take to remedy the situation?
- Will preliminary site cleanup work be started immediately following project completion?
- Following preliminary site cleanup, when will the site be inspected again?
- When will final site cleanup be scheduled?
- What is planned in terms of land restoration?
- When will this work take place?
- How and when will damage to land that may appear after the project is completed, be remedied?
- If seismic testing indicates potential for further exploration and/or development activities, what happens next? When will it happen?

- ***Road Construction***
 - » What type of road will be constructed?
 - » Will the road be accessed in winter only, or in all seasons? Where will it be located?
 - » Will the road surface be graveled?
 - » What size of crushed rock?
 - » What kind of vehicles and what volume of traffic are expected on the road?
 - » If a road crosses a fence line or natural barrier, how will this be remedied?
 - » If a road is closely located to a residence, crops, or livestock, how will dust be controlled?
 - » What methods will be used to ensure that surface water run-off is properly controlled?
 - » What methods will be used to prevent contaminated fluids from entering water sources, fields, livestock areas, etc?

- » Will the access road right of way be seeded?
 - » How will noxious weeds be controlled?
 - » Will the road be deactivated, partially or completely? When?
 - » Will regular road maintenance take place?
 - » Will a maintenance schedule be developed?
 - » What is the schedule? Will it be followed?
 - » Will other companies use the road to access other sites? If so, how will the landowner be notified?
 - » If more than one company uses the road, which company will assume primary responsibility for the road?
 - » How will this affect road maintenance and compensation to the landowner?
 - » Will an access road and well site be located to ensure the least amount of disruption to existing land use operations?
 - » How will topsoil be conserved on a well site and access road?
 - » Will an access road and well site be constructed to ensure that natural water drainage is not impeded?
- *Well Site Development*
 - » What is the full potential development plan for the site? Although the company may not know the exact details, they should be able to provide information on how big they estimate the reserve to be, how many wells and pipelines are expected.
 - » What hazards are associated with the proposed activities?
 - » What safety precautions will be in place?
 - » How will the well be monitored?
 - » Will a flare stack or incinerator be located on the site?
 - » Will flare testing occur?
 - » If so, at what times and for how long?
 - » How much advance notice will be given to the landowner before flare testing begins?
 - » Will drilling take place on a daily basis?
 - » How often during the day will it occur?
 - » What are the anticipated noise and odour levels during well site operation?
 - » What measures will be in place to reduce noise levels?
 - » How will the company dispose of drilling waste?
 - » Are there alternatives to a drilling sump, such as a fluid containment tank?
 - » Will a power line be required? If so, will the line be above or below ground?
 - » Will existing water wells/sources be tested for quality and quantity before and after drilling is completed?
 - » If a water well/source is impacted, what measures will be taken to remedy the situation?
 - » Will the company need to drill a water source well?

- » If a well site were to produce CBM, how will it be transported from the site?
- » If a well site were to produce CBM, what additional surface facilities may be required (compressor, pump jack, tanks)?
- » If a well were to produce CBM, will additional wells be installed on or near the site?

- *Restoration*
 - » Do you have a reclamation plan prepared, including a description of how you will dismantle, clean and restore a site?
 - » If a well does not produce, how will the site be restored?
 - » Will a company apply for a Certificate of Restoration in a timely manner?
 - » If a well located in a treed area does not produce, what are the plans for timber salvage and reforestation?

- *Pipeline Development*
 - » How many pipelines are planned?
 - » Where will the pipeline(s) be located?
 - » What is the pipeline right-of-way width?
 - » How will a company access a pipeline right-of-way during and after construction, when performing maintenance?
 - » Will construction be suspended during wet weather conditions?
 - » Are any above ground facilities associated with the pipeline planned? Where will they be located?
 - » How will water run-off be controlled?
 - » Will the right-of-way be seeded following pipeline construction?
 - » How will noxious weeds be controlled?
 - » Will a company ensure adequate pipeline maintenance if the pipeline is suspended?
 - » How and when will a company repair effects of water erosion or settling along the pipeline right-of-way after construction?
 - » Should a pipeline right-of-way breach an existing fence line or a natural barrier, how will this be remedied?

- *Compensation Concerns*
 - » What is the proposed entry fee?
 - » What is the expected inconvenience during construction?
 - » How will the development affect land use, such as for crops, livestock and other purposes?
 - » What will likely be the adverse effect on land surrounding the well site?
 - » Are there plans to have more than one well?
 - » What type of compensation is available for nuisance and disturbance as a result of noise, visual impact and the industrialization of property?

Compensation is a legal requirement for companies who occupy land for CBM activities.¹⁰⁰ It may be difficult to determine the appropriate amount of compensation. Alberta has developed guidelines to assist landowners and operators in knowing what to expect in regards to appropriate compensation. Please note these guidelines are for informational use only. In some areas of the United States compensation is more substantial and landowners should not hesitate to insist on an amount of compensation they feel is appropriate.¹⁰¹

Entry Fee	The entry fee is \$500 per acre of land granted to the company to a maximum of \$50,000. The minimum entry fee is \$250 when the area is half an acre or less.
Land Value	The value of the land used by the company is determined by the price of the land if it were sold on the open markets at the time the lease was prepared. The value of the land is based on the highest approved use for it (i.e. agricultural, industrial or residential).
Initial Nuisance, Inconvenience and Noise	<p>This payment is for nuisance during the first year of the lease. For example, the landowner will likely have to spend a lot of time dealing with a company's representatives, preparing documents and negotiating with the company or seeking advice from the government or lawyers. Keep a record of all time spent, calls made and expenses incurred.</p> <p>West Coast Environmental Law recommends that landowners choose a reasonable hourly rate for their time, multiply it by the time they invest and top it up for intangible loss, like loss of peace and quiet. To choose what may be considered a reasonable hourly rate, the hourly rate of the land agent you are negotiating with may help determine what is considered reasonable compensation for the time you are investing.</p>
Loss of Use of the Land	The company pays annual compensation for the loss of the normal use of the well site areas during the well site's life. The amount should approximate the value of the gross annual production reasonably expected from the area.
Adverse Effect	The payment is related to inconvenience, nuisance and extra costs on the rest of the property where the well is located. For example, farming around the well site may require extra work on soil which has been degraded.
Other Relevant Factors	If there are other considerations specific to a landowner's situation, they should be included when negotiating compensation.

CBM operators will typically use a standard surface lease form which is often modified to suit their own needs. The standard surface lease form is a starting point for negotiations. It is possible to add to it, delete from it and design it to meet your own needs. Below is a sample surface use and damage agreement adapted from the Powder River Basin Resources Council in Wyoming. This agreement may help provide guidance for considerations you may wish to have included in your agreement with the CBM operator.

This Agreement is made and entered into between _____, of _____, British Columbia (“Owner”) and _____, of _____ (“Operator”).

IT IS AGREED AS FOLLOWS:

The Land. Operator holds interests in oil and gas leases covering the following described lands situated in _____ and Owner owns the _____, which includes the surface of the above described lands. This Agreement covers Operator’s activities on and access across the above described lands only.

Shallow Rights Only. Notwithstanding any other provision of this Agreement, the rights granted to Operator hereunder shall be limited to operations related to the drilling and producing of wells to the _____ formation. Surface damages for operations related to the drilling and producing of wells to greater depths shall be by a separate agreement to be negotiated by Operator and Owner.

Right-of-Way. Owner grants Operator, its employees and designated agents, a private right-of-way to enter upon and use the above described lands for the purpose of drilling, completing and producing oil and gas wells on Owner’s land. However, access to the above-described lands on Owner’s portion of the private road known as the “_____” shall be by separate agreement.

Notification and Consultation. Operator shall notify Owner prior to entry upon Owner’s land and shall consult with Owner as to the location of each well, road, pipeline, power line, pod or battery site, gathering system and other facility to be placed on Owner’s land. To the maximum extent possible, Operator will use existing roads on Owner’s land for its operations, and if construction of a new road is required, Operator will consult with Owner, and following such consultation locate the new road in a manner so as to cause the least interference with Owner’s operations on the affected lands. If a pipeline or gathering system is to be installed by Operator, Operator will locate the pipeline and gathering system in a manner so as to cause the least interference with Owner’s operations on the affected land. Operator shall notify Owner when each drilling and production operation for any well drilled on the above described land has been completed and when Operator is permanently or temporarily absent from the surface.

Termination of Rights. The rights granted by Owner to Operator shall terminate when the Oil and Gas Lease terminates, Operator ceases its operations on the land, upon Operator’s notification to Owner of Operator’s intention to cease operations, or if Owner so elects, upon a breach of this Agreement by Operator, whichever shall occur first. Upon termination of this Agreement, Operator will execute and deliver to Owner a good and sufficient recordable release and surrender of all of Operator’s rights under this Agreement, and will promptly remove all equipment and property used or placed by Operator on Owner’s land unless otherwise agreed by Owner in writing.

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