

**Proposal for a Public Inquiry Into the
Environmental, Socio-Economic and Other
Impacts of Oil and Gas Exploration in Nova
Scotia's Offshore**

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Why a Public Inquiry?

We need a Public Inquiry into the environmental, socio-economic and other impacts of oil and gas exploration in offshore Nova Scotia.

The inadequacies of the current regulatory and impact assessment regime, the failure to consider the latest science (on risk assessment, dispersants, impact of seismic, added risks of deepwater drilling, ocean acidification, and recovery of the fishery, for example), the poor state of public awareness and involvement, and the magnitude of the risk to the marine biosphere and to the present and future economic base of the southern and southwestern half of the province all demand an up-to-date, thorough public re-examination. That inquiry could take up to two years. In the meantime, there should be a moratorium on all new oil and gas activity offshore respecting the established “precautionary principle” (see appendix).

The Purpose of a Public Inquiry

A public inquiry would identify, disseminate widely, and examine in an unbiased fashion our current knowledge about the impact of oil industry activity in a marine environment such as that off the coast of southern and southwestern Nova Scotia. That examination would provide the basis for recommendations concerning the advisability and management of oil and gas exploration and development in the offshore.

Who Should Conduct the Inquiry?

The Inquiry, like its 1990s predecessor, the Georges Bank Review Panel, would ideally be a joint federal-provincial effort. But, failing agreement on conducting a joint inquiry, it could proceed with the backing of only one government.

The proposed federal Impact Assessment Act (currently before Parliament) includes authority for regional impact assessments to assess the cumulative effects of existing or future activities in a specific region. The arguments for just such a regional assessment, to provide a much-needed guide to individual project assessments in the Nova Scotia offshore, are compelling.

Note: Responsibility for regional assessments is a matter of ministerial discretion. They will not necessarily be the task of Review Panels. It should be noted, however, that the make-up of Review Panels under the IAA is a concern. They grant an inappropriate role and influence to the current offshore regulatory boards, already hopelessly compromised by their ties to the oil industry, their lack of socio-economic and ecological expertise, and their conflict of interest between regulation and promotion of the industry. We hope the federal government will see fit to amend the IAA to make treatment of the offshore boards consistent with treatment of their federal counterparts. The National Energy Board, for example, will not longer play a major role in Impact Assessment.

In 2013, the province, for its part, conducted an independent review of the socio-economic, environmental and health effects of fracking onshore, and there is a strong case for a similar assessment of the impact of oil and gas exploration in the offshore.

Appointment and Make-up of the Inquiry Panel

The Inquiry panel should be appointed by the governments concerned ensuring expert representation from affected Indigenous peoples, fishing and tourism industries, environmental groups, municipal governments, and the oil industry. Panel members should be unimpeachable for their independence and their expertise. A technical staff able to

advise the commissioners in the assessment of evidence will also be essential. Legal counsel to act as amicus curiae in the examination of evidence is also desirable.

Public consultation about the make-up and practice of the Panel should be sought in advance through well-publicized community meetings throughout the southern half of the province.

A Process that Emphasizes Democratic Involvement

The Georges Bank Review Panel process (with the exception of the lack of a specific Indigenous engagement component) provides a model of public involvement a new public inquiry would do well to emulate. It stands in stark contrast to the egregious lack of serious public consultation in the practice of the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) and, alas, the Canada Environmental Assessment Agency (CEAA) of late. We quote Georges Bank Panel Report here at length by way of illustration:

“To address the public need for information and to encourage participation, the Georges Bank Review Panel established an extensive four-phase public review process.

Introductory meetings, information sessions, and community workshops served as preparation for the final stage of public hearings.

The Panel also published four editions of a newsletter, commissioned a number of studies, and set up a web site on which was posted an extensive bibliography of material related to Georges Bank.

Seven public introductory meetings were held in October, 1996 to introduce the proposed review process and the Panel members. Like the other public events in the review, these sessions took place in various locations in southwest Nova Scotia (in Digby, Saulnierville, Yarmouth, Barrington, Liverpool, Lunenburg) and in Halifax. The Panel also met with municipal councils and regional development authorities.

In the fall of 1997, six information sessions were held to provide the

public with basic information relevant to the review (Digby, Yarmouth, Barrington, Liverpool, Lunenburg, and Halifax).

Community workshops were conducted in the spring of 1998 (in Yarmouth, Shelburne, Bridgewater, and Halifax) to give review participants the chance to discuss issues and exchange information directly with one another prior to the hearings. The workshops were led by a two-person team of facilitators, and the Panel also invited a number of resource people to provide information as needed on such topics as scientific research findings; the fishery; oil and gas experience in the North Sea and the Gulf of Mexico; and offshore petroleum regulation.

In the fall of 1998, the Panel also attended a meeting in St. George, New Brunswick, to explain hearing procedures and discuss concerns.

Public hearings were held in January, 1999 in Yarmouth, Shelburne, Lunenburg, and Halifax. These hearings were conducted in a non-judicial but structured manner. Presenters were questioned by the Panel, but there was no questioning or cross-examination by other participants. Those who made a presentation or written submission could also submit a written closing statement or comments to the Panel within 10 days of the close of the hearings. No intervenor funding was available for participants.

There were 91 participants during the 11 days of the hearings, as well as eight written submissions and five closing statements. Participants included representatives of the fisheries sector; the petroleum industry; environmental groups; government departments and agencies from Canada and the United States.”

Purview of the Inquiry Panel

A central goal of the Inquiry must be public education through well-publicized public information and engagement sessions culminating in a series of public hearings open to all interested intervenors whose testimony will be treated as evidence.

In addition to the compilation of an up-to-date and relevant bibliography, the Inquiry would be expected to address, amongst other concerns it deems worthy of its study, the following:

- the state of knowledge concerning the sub-sea geology of Nova Scotia,
- the state of knowledge concerning the sub-sea topography, ocean currents, weather conditions, wave action and their implications for dispersal and impact of a catastrophic event resulting in a significant hydro-carbon spill in Nova Scotian offshore territory,
- the current state of knowledge and population health of fish stocks in the inquiry study area, their spawning habits, their food sources, reproductive rates and their sustainability,
- the current state of other species, including mammals, micro-organisms and botanical species native to or transient in the Scotian offshore, their role in the marine ecology, their sensitivity and population health and sustainability,
- the current knowledge on the pace and status of ocean acidification and its implications for renewable marine resources, climate change and the development of non-renewable energy resources in the offshore,
- the economic importance of provincial industries dependent on a healthy marine environment in the Nova Scotia offshore, including the fishery and tourism industries, their importance to the rural and regional economic base, the viability of coastal communities and the role our marine assets play in attracting an educated workforce and retirement community,
- the costs and benefits of oil industry activity in the offshore, resource potential, reasonably expected public revenues, jobs, secondary economic effects,
- potential for offshore renewable energy development (wind, tidal, other), state of knowledge and gaps to be filled, costs and benefits,
- the state of knowledge and the implications of the latest research on the environmental impact of seismic testing in the offshore,

- the state of knowledge regarding offshore oil and gas exploration, including the latest technologies and experience with deep ocean drilling in conditions akin to those in the Nova Scotia offshore,
- the history of offshore industry disasters and the lessons to be drawn from them concerning spill response success, regulatory oversight, technological reliability, human error, remediation and long term impact on competing uses and the marine ecology,
- an examination of risk assessment of offshore industry projects, the difference between *risk assessment* and determining *acceptable risk*, and how to ensure the latter is fairly determined,
- the likelihood of any catastrophic spill in the offshore reaching the province's shoreline and the means to address that risk and its impact,
- the implications of oil industry activity in the offshore for federal and provincial plans and commitments to address the pressing threat of climate change,
- the cumulative impact of developments in the offshore,
- the appropriateness of the current limits on liability for offshore catastrophes, in the light of recent global experience, and the avenues for compensation for interests harmed by such catastrophes,
- current state of offshore energy regulation, reforms needed to ensure adequate weight given to competing uses, and the need to regulate alternative energy developments,
- other concerns the commissioners consider germane to their mandate.

Public Interest Intervenor Funding Essential

In the interests of full and informed public participation, funding must be available to public interest NGO, independent experts and community intervenors to ensure a level playing field

vis-a-vis industry intervenors, who can write off their intervention costs. The Panel will need to consider how to structure such intervention in an economical, but fair way.

Final Report, Transparent and Public

Transparency regarding the disposal of evidence and the underlying science has been lacking in both the practice of the CNSOPB and federal consultations on the offshore to date. Lack of transparency undermines the credibility and legitimacy of the resulting decisions.

Disposal of all evidence presented to the proposed Inquiry Panel must be publicly accounted for in a final report to both governments and the public, including any recommendations panel members see fit.

Appendices

Appendix 1: Excerpts from the Georges Bank Review Report (1999, Natural Resources Canada, Nova Scotia Petroleum Directorate, (<https://www.cnsopb.ns.ca/publications/georges-bank-review-panel-report>)

1999 Georges Bank Review Panel Terms of Reference and Process

Historical Background

Georges Bank, widely regarded as one of the world's most productive fishing grounds, has played an important role in Canadian fishing history since the mid-1800s.

A century later, in 1964, the Canadian government issued the first petroleum exploration permits in the Georges Bank area. In 1969, the United States informed Canada that it too claimed territorial rights on Georges Bank. The United States proposed a drilling moratorium in the Gulf of Maine pending establishment of an international boundary, although that country did permit two exploratory wells to be drilled in 1976-77 on the undisputed American portion of Georges Bank. A further eight-well

program was conducted in 1981-82. All 10 American wells were dry.

The Canada-U.S. boundary dispute was eventually submitted to the International Court of Justice at the Hague, and was settled in a 1984 decision that gave Canada jurisdiction over the northeast portion of the Bank. The United States then placed a moratorium on oil and gas leases on its side of the boundary.

In 1986, Texaco started a local consultation program preparatory to exploration drilling on the Canadian side of Georges Bank. Local fishing interests and residents opposed these plans, and in response to their concerns the governments of Canada and Nova Scotia enacted the Canada-Nova Scotia Accord Acts in 1988. ***This legislation placed a moratorium on petroleum activities in the lands described in the Acts, encompassing the Canadian portion of Georges and small sections of adjacent areas, until January 1, 2000. The legislation also required that a public review of the environmental and socio-economic impacts of exploration and drilling be conducted by an independent panel. In 1996, the Ministers of Natural Resources of Canada and Nova Scotia appointed this three-person Panel.*** The Panel was required to submit its report on the results of the public review by July 1, 1999. The responsible Ministers must take a decision on the future of the moratorium by January 1, 1999.

In the United States, the moratorium on offshore petroleum activities was enlarged in area and extended several times by executive order. In 1998, President Bill Clinton extended the moratorium until

2012.

The Review Process

This review was not of any specific project, but rather of drilling and exploration activities on Georges Bank.

Thus, no proponent was responsible for providing an environmental impact statement (EIS) in this review. *To address the public need for information and to encourage participation, the Georges Bank Review Panel established an extensive four-phase public review process.*

Introductory meetings, information sessions, and community workshops served as preparation for the final stage of public hearings. (See Chapter 1 for details.) The Panel also published four editions of a newsletter, commissioned a number of studies, and set up a web site on which was posted an extensive bibliography of material related to Georges Bank.

Seven public introductory meetings were held in October, 1996 to introduce the proposed review process and the Panel members. Like the other public events in the review, these sessions took place in various locations in southwest Nova Scotia and in Halifax. The Panel also met with municipal councils and regional development authorities. In the fall of 1997, six information sessions were held to provide the public with basic information relevant to the review. Community workshops were conducted in the spring of 1998 to give review participants the chance to discuss issues and exchange information directly with one another prior to the hearings. The workshops were led by a two-person team of facilitators, and the Panel also invited a number of resource people to provide

information as needed on such topics as scientific research findings; the fishery; oil and gas experience in the North Sea and the Gulf of Mexico; and offshore petroleum regulation. In the fall of 1998, the Panel also attended a meeting in St. George, New Brunswick, to explain hearing procedures and discuss concerns. Public hearings were held in January, 1999 in Yarmouth, Shelburne, Lunenburg, and Halifax. These hearings were conducted in a non-judicial but structured manner. Presenters were questioned by the Panel, but there was no questioning or cross-examination by other participants. Those who made a presentation or written submission could also submit a written closing statement or comments to the Panel within 10 days of the close of the hearings. No intervenor funding was available for participants.

There were 91 participants during the 11 days of the hearings, as well as eight written submissions and five closing statements. *Participants included representatives of the fisheries sector; the petroleum industry; environmental groups; government departments and agencies from Canada and the United States; Chambers of Commerce and other business organizations and companies; elected officials from all three levels of government; scientists from the Department of Fisheries and Oceans; consultants; academics; and interested citizens.*

Selected Observations of the Georges Bank Panel

On Seismic Impact:

“A typical seismic program takes place over a period of several months.

The pressure waves are lethal to fish larvae within about six metres, and can also injure fish with swim bladders; these physical effects diminish with distance. However, studies on larvae and fish eggs are few in number and not comprehensive enough to provide confidence limits and statistical power.

There was no information presented on the possible effects of seismic surveys on spawning behavior, on the behavior of adult lobsters or scallops, or on pelagic fish. Based on a small number of studies and some observed behavior, there were also unresolved questions about whether seismic surveys cause reduced catches of fish because the animals move away from the area, hide, or change their migration patterns. There was also very sparse information presented on the effects of seismic on marine mammals. A number of the studies referenced were on other species than those found on Georges. “

On Blowouts:

“Considerable evidence indicated that large releases of hydrocarbons from blowouts or spills are rare events. Depending on the circumstances, all ecosystem components could be affected, and fisheries closures, loss of access, or market impacts from tainting would be a possibility.”

On Jobs and Economic Benefits:

“Direct economic benefits from an initial three to four year exploration program involving seismic operations and three wells were estimated at \$53 million to \$70 million, with additional indirect economic benefits and opportunity for economic diversification. There would be some 240 to 320 direct jobs created for Nova Scotians. “

Overview:

“Participants generally agreed about key social goals, but disagreed on whether petroleum activities would support or undermine a vision of the future that included protecting the fisheries and ecology of Georges Bank; developing more local jobs and economic benefits; and maintaining local communities. “

Future of the Sustainable Fishery:

“With effective management and a goal of resource sustainability, presenters on the topic believed that today's yields could be maintained indefinitely. In the case of herring and groundfish (perhaps excluding cod), some presenters said harvests could increase with good management, providing additional jobs and economic growth in the region. The fisheries are now of major economic, social, and cultural importance to the communities of southwestern Nova Scotia.”

Approaches to Decision-making:

“Topics included the role of science and the burden of proof in regulatory decisions; legal and moral rights; the principles of sustainable development; fairness and need in the context of risk; and the use of priorities and scenarios in decision-making. A key issue was whether it was appropriate for decisions about petroleum activities on Georges Bank to be made within the existing offshore petroleum regulatory regime, in which the "default assumption" is that regulated activities will usually proceed unless scientific information clearly demonstrates harm. Much comment about this subject concerned the Precautionary Principle and the uses of and limitations, on the role of science.”

Renewable vs. Non-renewable Resources:

“Many stated that, in balancing the interests of the petroleum industry and the fishery on Georges, the higher need is to protect biological resources, and that those interests should carry greater weight in decision-making.”

On Risk:

“The great ecological value of Georges and the unacceptability of any harm there were seen by many presenters as more significant to the discussion of risk than the low probability of any major damaging event. In a related argument, some presenters discussed risk in terms of the costs of being wrong in choosing whether to lift or extend the moratorium. They stated that if the moratorium were retained but that concerns about potential harm proved unfounded, the fishery would remain undisturbed. The petroleum industry would lose a present opportunity, though the resources would remain in place for the future. On the other hand, if the moratorium were allowed to expire based on assurances that adverse effects would not occur, yet these did happen, potential losses to the fishery could be large.”

Conclusions Re Risk:

“In considering risks to Georges Bank, the unacceptability of potential harm is the most important factor.

The arguments that point to the great value of Georges Bank, ecologically and as a fishery, weighed against a lack of public need for and limited benefits from petroleum exploration are persuasive.”

Appendix 2: Excerpt From the Report of the Nova Scotia Independent Review Panel on Hydraulic Fracturing, 2014

([https://energy.novascotia.ca/sites/default/files/Report of the Nova Scotia Independent Panel on Hydraulic Fracturing.pdf](https://energy.novascotia.ca/sites/default/files/Report%20of%20the%20Nova%20Scotia%20Independent%20Panel%20on%20Hydraulic%20Fracturing.pdf))

Mandate from the Province and Scope of the Review

On August 28, 2013, the Province of Nova Scotia and the Nova Scotia Department of Energy signed an agreement with the Verschuren Centre for Sustainability in Energy and the Environment at Cape Breton University to conduct an external review on the environmental, socio-economic, and health impacts of hydraulic fracturing. Simultaneously, Dr. David Wheeler, President and Vice Chancellor of Cape Breton University, was asked to convene and Chair the review and expert panel on a voluntary and unpaid basis.

The mandate for the review was to: create a panel of technical experts based on input from the public and hire technical consultant(s) to facilitate the work of the panel; hire a part-time project administrator; conduct public consultations on the process of hydraulic fracturing with online tools and face-to-face meetings with stakeholders; and conduct a literature review on the health and socio-economic impacts of hydraulic fracturing. These activities would result in a final report to the Government of Nova Scotia with recommendations on the potential of hydraulic fracturing to develop unconventional gas and oil resources in the Province.

The scope of work included, but was not limited to, the following areas of research: effects on groundwater - including both water quality and quantity issues; effects on surface water; impacts on land; management of additives to hydraulic fracturing fluids; waste management; site restoration; requirements for hydraulic fracturing design including chemicals used; and the engineered design and financial security considerations that operators are required prior to conducting activity in the Province.

The intended outcome for the project was for the Province of Nova Scotia to be able to make an informed decision on the future of hydraulic fracturing activity in Nova Scotia, based on input from technical experts and the public on environmental, health, and socio-economic impacts. The original end date

for the review was June 30, 2014, but the deadline was extended until August 31, 2014.

In this report, we define “the process of hydraulic fracturing” (from our mandate) as: “the process of hydraulic fracturing and its directly associated activities and technologies for the purpose of unconventional gas and oil development.” Directly associated activities and technologies would include the drilling and finishing of exploration and development wells, but exclude detailed consideration of the construction and management of pipelines and distribution networks. Throughout the document we use the term “unconventional gas and oil development,” and by this we infer “by hydraulic fracturing.” Also, except when specified, we also use the term “hydraulic fracturing” to infer “and its directly associated activities and technologies.” In particular cases, we use the term “hydraulic fracturing” to mean the specific technical activity. See Chapter 1 for more details and definitions. These various uses should be self-evident in the text. Activities and technologies associated with exploration and development of conventional oil and gas resources, which may include some of the same technologies used in exploration for unconventional resources e.g. the acquisition of seismic data and the drilling vertical wells, are not addressed in this report. These activities were outside the scope of our review.

Not included in our scope, were changes some stakeholders would like to see in provincial climate change strategy, energy strategy, or detailed consideration of the relative merits of alternative fuel sources. We did, of course, pay particular attention to relevant provincial legislation, including the Environmental Goals and Sustainable Prosperity Act (2007). And an underpinning assumption of our work was that the legislated 2020 40 per cent renewable electricity target for the Province remains in place, and thus, any future development of unconventional gas and oil resources would not diminish the existing provincial commitment to renewable electricity generation.

Appendix 3: Precautionary Principle

“The precautionary principle, proposed as a new guideline in environmental decision making, has four central components: taking preventive action in the face of uncertainty; shifting the burden of proof to the proponents of an activity; exploring a wide range of alternatives to possibly harmful actions; and increasing public participation in decision making. “

Source: National Institutes of Health, Kriebel, Tickner et al, "The precautionary principle in environmental science", *Environmental Health Perspectives*, Vol 109 (9), Sept. 2001.