PUSHING THE TAR SANDS ENVELOPE:

KINDER MORGAN'S ANCHOR LOOP APPLICATION AND THE OIL SANDS AGENDA

A Submission to the National Energy Board,
Calgary, Alberta

By Will Koop
Coordinator, BC Tap Water Alliance
(www.bctwa.org)
July 10, 2006

CONTENTS

Larry Pratt: There's so much going on here. I've never found it necessary to go out of Alberta to find interesting things to write about or talk about. I sure taught a lot of students, but none of them seemed to want to go on and write about this stuff. But the book that I would like to redo, if I was going to redo a book, would be *The Tar Sands*. It seems to me that I didn't get it right the first time. But beyond that, I'm attracted by Harold Innis, and ideas about the nature of the state. Then from that, what kind of development is possible, what kind of economic rents can we generate? There was that long negotiation between Ann McLelland and Eric Newell and the others, a package for the oil sands. Basically they gave it all away. But also to look at the technologies, the changing technologies. I mean, it's a huge issue. (*Thinking about Prairie Capitalism: Interview with Larry Pratt*, by Jeremy Mouat)

The US became a society dominated by big business. It was described aptly by John Dewey who wrote that "government [or politics] is but the shadow cast upon society by big business" and to attack the government (the shadow) is to miss the real source of the problems, namely, big business. (Randell G. Shelden, Department of Criminal Justice, University of Nevada-Las Vegas, in *Third World Conditions at Home: Nobody to Blame but Ourselves*)

You are cautioned not to replace undue reliance on forward-looking information, as there can be no assurance that the plans, intentions, or expectations upon which it is based will occur. By its nature, forward-looking information involves numerous assumptions, known and unknown risks and uncertainties, both general and specific, that contribute to the possibilities that the predictions, forecasts, projections, and other forward-looking statements will not occur… Some of the risks and other factors which could cause results to differ materially from those expressed in the forward-looking statements contained in these presentations include, but are not limited to: … changes in environmental and other regulations or the interpretations of such regulations, political and economic in the Countries in which the company operates. (Encana – Investor Day, fine print cautionary foreword, November 7-9, 2005.)

LATE SUBMISSION

We request the NEB Board to accept this late submission on Kinder Morgan's Anchor Loop Project proposal. We almost completed this submission by late February, 2006, but were unable to complete it due to our busy involvement in publishing a book, just released on June 13th (refer to our website). By July 4, 2006, we resumed our submission, and discovered on July 6th, after contacting the NEB office for critical updates, that the deadline for letters to the National Energy Board regarding Kinder Morgan's Anchor Loop project had transpired on June 26th. Given our great personal efforts to research and prepare this submission, we spoke with a representative at the NEB to ask if it would be possible to still present it. We sincerely hope that NEB Board reviewing this project will accept our late submission.

1. SUBMISSION BACKGROUND

This is the first occasion the BC Tap Water Alliance (BCTWA) is filing a submission to a governmental energy/utility/regulatory body. This is a self-funded submission, with no funds provided from external sources. In previous, the BCTWA has undertaken lengthy research reports, engaging in some provincial and regional government processes, all of which are provided on our website.

In order to familiarize ourselves with the general process at hand, in December 2005 – January 2006 we reviewed the National Energy Board's (NEB's) website and contacted NEB staff for information on its operations and submission criteria. As such, we also reviewed a small number of relevant NEB and BC Utilities Commission hearings to gain an appreciation of their formats and routines. We note, in particular, the nature of the NEB's quasi-judicial hearings is as other legally-based inquiries - rigorous, professional and highly technical - and that the Board is genuinely interested in hearing from the public and affected parties.

> We have found that maintaining an ongoing dialogue with all stakeholders provides two important benefits: one, it helps ensure that we understand our stakeholders' perspectives; and two, it helps build our credibility as an expert regulatory tribunal. (CRE 10th Anniversary – The National Energy Board's Experience: 45 Years of Lessons Learned, October 18, 2005)

In anticipation of increasingly oil-sands-dependent-regulated pipeline companies making applications to the NEB for energy transportation expansion and marketing opportunities into British Columbia (BC) from Alberta (AB) - specifically Kinder Morgan and Enbridge's advertised application - we took considerable time (November 2005 - February 2006) to study and review a small wealth of information related to the general oil industry and its history in western Canada, information of which we were previously and entirely ignorant of. This knowledge was gleaned from numerous sources, books, reports, theses, related journals, magazines, newsletters, and newspapers, from:

- the University of BC libraries;
- the Vancouver Public Central Library;
- the BC Archives;
- the National Archives;
- the BC Utilities Commission;
- the National Energy Board library in Calgary;
- the Calgary Central Library;

- the Calgary office of the Alberta Energy and Utilities Board Library;
- Kinder Morgan;
- and from a large host of government, industry, and non-governmental organization documents, and other related documents and articles available on the internet.

The NEB library

Our initial discovery of the hydrocarbon industry operational history has been an intensive, laborious, interesting, intriguing and disturbing learning curve, particularly our evaluation of the evolving and dominating interrelationships with third, second and first order governments. And, in order to help grasp the complex background behind the present application circumstances, we have condensed key elements from our gathered information into a timeline of what we consider to be interesting and relevant events, most of which specifically relate to three general themes, documented in this submission as **Appendix A**. The three themes are:

1. The offshore oil, gas and tanker moratorium on BC's coast, and primary oil spill incidents;
2. The oil pipeline history in BC and related spill/rupture incidents from its two main pipeline corridors;
3. The evolutionary research, development, permit and promotional history of AB's oil sands.

It is within the context of these three intermingling themes - related to Kinder Morgan's Anchor Loop application through Jasper National and Mt. Robson Provincial Parks, and in related anticipation of Enbridge's forthcoming Gateway application - that we are making the present submission.

2. THE TRIGGER

The NEB Board may be wondering why the BCTWA is interested in the present application process. It relates to Pembina Pipe Line Company's August, 2000 devastating oil spill in BC's Pine River, and, amidst the complex harm done to the aquatic ecology, the direct consequential impact it had to pollute and render unusable the District of Chetwynd's source of drinking water.

> THE CHAIRPERSON: This all happened, as I recall, as Walkerton was evolving as well, so that no doubt exacerbated the public concern.
> MS. LAFLEUR: It did, and you know, Chetwynd is a small, very insulated community and the people have lived there for a very long time and they've never had to deal with a large, traumatic event before. And I think this brought out many fears, and they're all related to health. I mean as we all know, Walkerton is a great example of what can happen, and those health issues are going to be there for a long time. (BC Utilities Commission Proceedings transcripts, *In the Matter of Plateau Pipe Line*, testimony by Lynda LaFleur, South Peace Health Council, April 6, 2001, page 830.)

> The application before you is not only about tolls, the transfer of oil, and the prosaic demands of profit and loss. It's also about wildlife, pure water and the people who call the pipeline route their home. So I urge the Commission to remember this as it considers the application. I urge you to remember the Pine River spill and do everything in your power to prevent another. The people of the province will not forget the Pine River spill, and if another such spill occurs they will not forget that we knew it could happen again. (Ibid., testimony by Wayne Sawchuck, Director of the Chetwynd Environmental Society, April 5, 2001, page 606.)

By mid-2001 accumulated costs accrued to the District of Chetwynd regarding its water supply source were already at about $3.5 million:

> Now, the cost to us to date, altogether, is $3,485,692.96 (Ibid., testimony of Chetwynd Mayor Charles Lasser, April 4, 2001, page 474).

Due to other pressing circumstances, the BCTWA was unable to investigate and publicize the incident when it occurred. As a result of recent great and growing public concern in BC related to Enbridge's *Gateway* proposal and the marketing of AB's oil sands, we took the opportunity last November to begin an investigation of the details related to the Pine River spill.

We discovered disconcerting information related to the historical integrity of Pembina's "Western" pipeline (1961 to the present) - namely manufacturing irregularities of the steel pipe and irresponsibility to install necessary valves at numerous river crossings. We also discovered that, aside from a large number of fresh water (lake, wetland, river, creek) systems that the Taylor to Kamloops, and the Trans Mountain, oil pipelines parallel, cross, and are buried beneath, the two pipeline systems run adjacent to and over other BC drinking water sources.

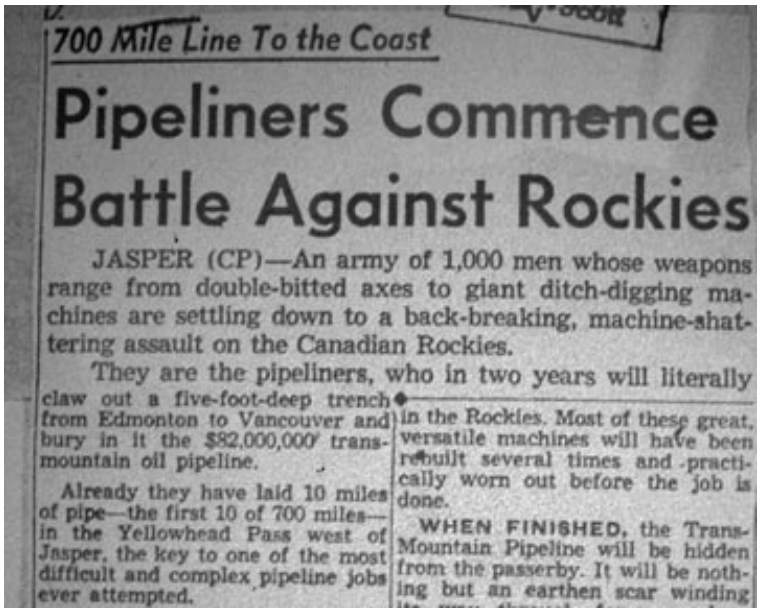
> The consequences resulting from a failure on the pipeline is expected to increase in the future. This is particularly so for sensitive locations such as aquatic environments and near community water sources. The Tera report has identified 251 stream crossings and quite a number of communities and First Nations lands that could be impacted by a spill. The report states the length of pipeline and diversity of sensitive environments through which it passes ensure that almost any release could result in an adverse effect of high consequence. Plateau recognizes that it would be breaching public trust and accepted operating standards by continuing to operate the pipeline without taking adequate steps to reduce the risk of future spills that could have a serious consequence to the environment and public safety. (Ibid., Sawchuck, page 599)

We note that Trans Mountain, as an inter-provincial pipeline, is regulated by the NEB. As the BCTWA's mandate is to promote the protection of BC's drinking water sources, these oil pipelines constitute a clear and present danger to them, despite the fact that few incidents have jeopardized these sources. Therefore, the existence of these two pipelines, and proposed pipeline projects, and their regulation by the BC Oil and Gas Commission and the NEB are a direct concern to the affected water users and to us.

The oil industry's recent and intensive promotional marketing of Alberta's oil sands - i.e., its reinvigorated symbol and status as the next unconventional "Saudi Arabia" oil reserve, the proposal agreement between Enbridge and Petro-China – is evidently driving Kinder Morgan's Anchor Loop application. Kinder Morgan (formerly Terasen) is also rumored to be contemplating twinning the existing Trans Mountain line in addition to a separate consideration for a Kitimat to oil sands and oil/condensate pipeline route connection. It is part of what has been appropriately and collectively described as "Oil Sands Fever" (the title of the Pembina Institute for Appropriate Development's November 2005 report). As a result, British Columbians are now faced with two considerable social and environmental concerns: the prospect of more oil pipelines, and their attendant development and risk scenarios through the Province's ecosystems; and the lifting of the oil tanker moratorium along BC's coastal marine waters and the prospect of future oil spills.

3. A HISTORY LESSON: PARKS AND TRANS MOUNTAIN

> *Naturally Clause (25) would be amended to cover oil, but I feel the patrol clause is important, as quite a lot of their line will be paralleling and adjacent to various rivers, as well as crossing a lot of streams, and considerable damage could be expected to fish population if any quantity of oil is permitted to escape into these streams.* (Jasper Park Superintendent G.H.L. Dempster, to the Director of the National Parks Branch, correspondence, National Archives (RG84), February 22, 1952.)



700 Mile Line To the Coast

Pipeliners Commence Battle Against Rockies

JASPER (CP)—An army of 1,000 men whose weapons range from double-bitted axes to giant ditch-digging machines are settling down to a back-breaking, machine-shattering assault on the Canadian Rockies.

They are the pipeliners, who in two years will literally claw out a five-foot-deep trench from Edmonton to Vancouver and bury in it the $82,000,000 trans-mountain oil pipeline.

Already they have laid 10 miles of pipe—the first 10 of 700 miles—in the Yellowhead Pass west of Jasper, the key to one of the most difficult and complex pipeline jobs ever attempted.

in the Rockies. Most of these great, versatile machines will have been rebuilt several times and practically worn out before the job is done.

WHEN FINISHED, the Trans-Mountain Pipeline will be hidden from the passerby. It will be nothing but an earthen scar winding

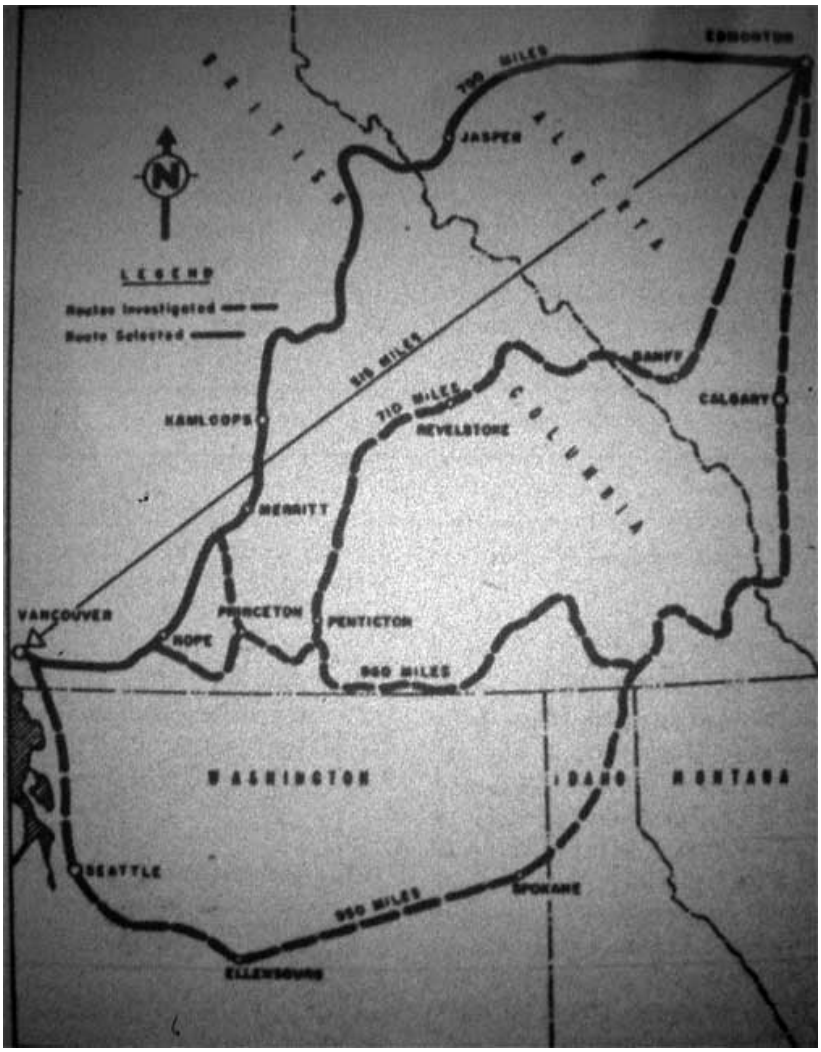
We were previously ignorant of Trans Mountain's buried crude oil pipeline. That discovery caused us to reflect upon the inherent, enormous and ever-present risks the line has posed and poses to the well-being of the primary and secondary fresh water systems along its course, and the dependence of these water sources for all living organisms. We were therefore, and legitimately, curious about the origins of the pipeline.

Aside from the promotional literature from that era (1951-1954), including a book produced in 1954 by Trans Mountain on the construction and operations of its line, it appears the primary reason why the problematic and ecologically sensitive route through BC's mountainous landscape was sanctioned by federal and provincial Parliaments was based on a promise, a promise that was soon to be broken.

> Oil company representatives told the Transport Board that refinery capacity in Vancouver will be enlarged as the line gets into operation. It is planned to ship surplus oil from Vancouver to the United States by boat. The pipeline, unlike some others that have been projected, would not run into the U.S. (*Pipe Line to Pacific from Alberta Wells Given OK in Ottawa*, The Telegram, Saturday, December 15, 1951.)

That promise was to provide Canadian oil to a single Canadian port and refinery on Burrard Inlet at Burnaby, an inter-provincial pipeline for the Nation's interest: "the company pledged itself to build only to Vancouver when it applied for a bill of incorporation to parliament." Of course, much later, oil tanker traffic in Burrard Inlet would come under severe public criticism due to oil spills and the threat of future spills.

Trans Mountain's owners were (and still are) based in the United States and, despite statements made to the Canada Board of Transport Commissioners, their private interests had been to market newly discovered Alberta conventional crude for the US. Originally, there were two proposed route right-of-ways by the prospective company owners, the other directly south of Calgary, over the Crows Nest Pass, and onward to Spokane, Washington, destined for new US coastal refineries in the Pacific Northwest.



Four route proposals for Trans Mountain pipeline. Map copied from a presentation to the 66th Annual General and Professional Meeting of the Institute of Canada, May 7, 1952 by Trans Mountain Oil Pipe Line Company vice-president S.M. Blair and Canadian Bechtel Ltd. vice-president D.L. Roberts. (Source: Ottawa Archives, RG 84, reel T-9395, Jasper National Park, Trans Mountain right-of-way, 1951-1956.)

By mid-March 1952, three months after approval by the Board of Transport Commissioners for its route west of Edmonton through Jasper National Park, Trans Mountain General Manager H.H. Anderson announced that the line would be split in two near Sumas, BC, and a large percentage of the oil was now to be diverted for newly proposed refineries along Washington State's Puget Sound. Members of Parliament became outraged after the announcement, reiterating Trans Mountain's national pledge to the public.

These two routes then became four possible routes (Exhibit 1), but the present route won out, apparently due to being more cost effective.

Intrigued by these facts, we noted something of particular interest. The timing of Anderson's announcement came some five weeks after Parliament passed Order-in-Council (P.C.) 664, the first of two separate orders (west and east divisions) to allow Trans Mountain's minimum six meter right-of-way through Jasper National Park. The second order, P.C. 1606, following a second report recommendation from the Minister of Resources and Development to the Privy Council on March 12, 1952, ratified on March 21, came one week after Anderson's announcement.

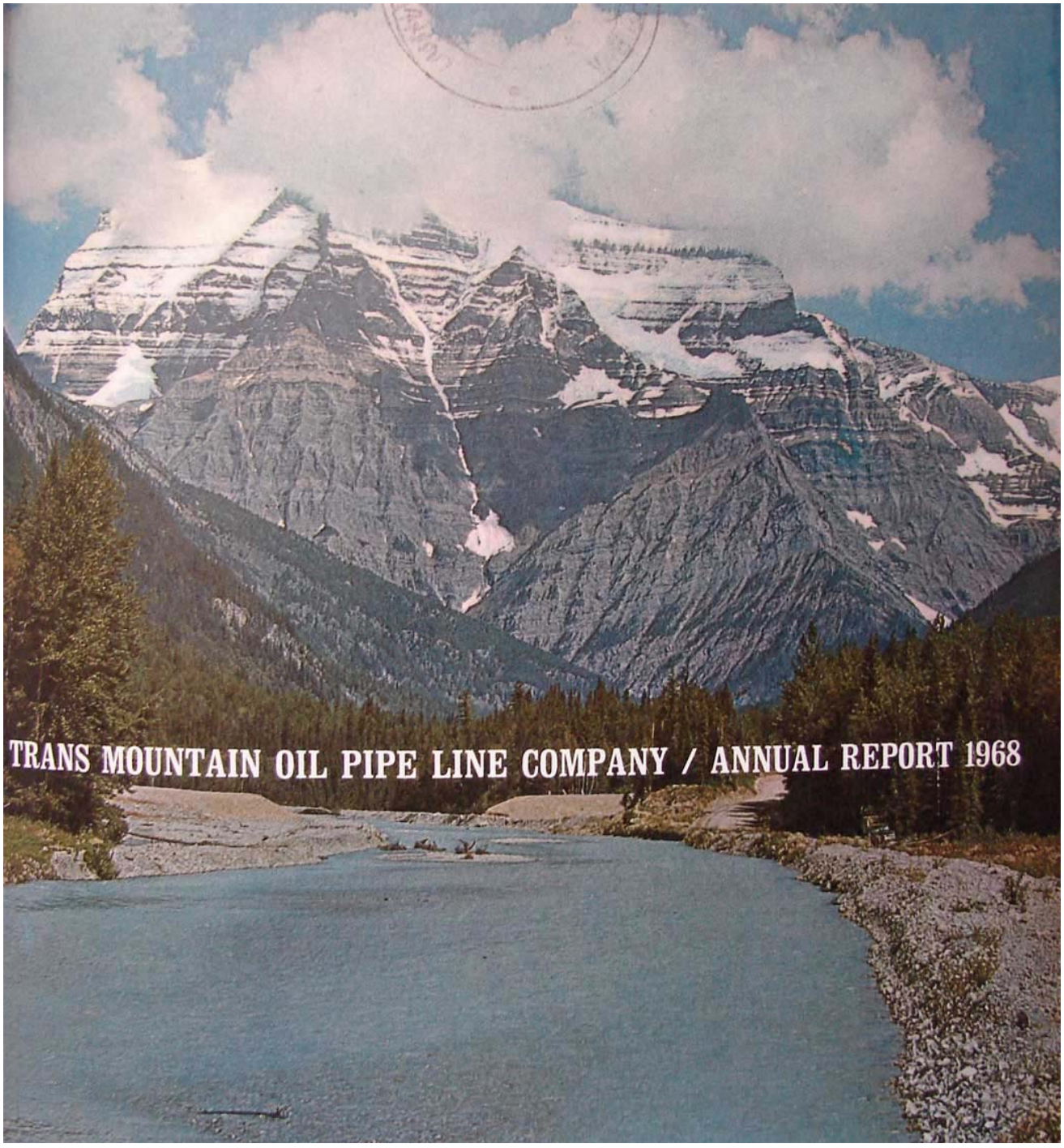


Photo of Mount Robson, in Mount Robson Provincial Park, from the front cover of Trans Mountain's 1968 annual report. The oil pipeline parallels the headwaters of the Fraser River for quite some distance.

Furthermore, in the body of both reports by the Minister to the Privy Council was a conditional sentence, "That the construction of the said pipe line is in the public interest."

The coincidence between the passage of the two Order-in-Councils and Anderson's announcement gives us thoughtful pause to reflect on whether the Minister of Resources and Development, or the Privy Council, would have been so kind or lenient in granting the National Park right-of-way had they known about the Company's change of plans, the two OICs repeating the Minister's condition specifying the right-of-way to have been made "in the public interest."

What were the public's concerns at the time? Within our limited time and research constraints, we did manage to discover a letter sent to G.H.L. Dempster, Superintendent of Jasper National Park, by David Simons, a resident from Springfield, Oregon, on August 12, 1953:

> I would be pleased if you could send me some detailed information on the pipeline which has been under construction through Yellowhead Pass. What was its degree of destructiveness to the natural features of the area? Were there possible alternatives to this route for the pipeline? What was the position of the Canadian National Parks Service on the construction of this pipeline? People in both the U.S. and Canada interested in the preservation of the last remnants of primeval America represented in our nations' national parks regret this commercial invasion of Jasper National Park. (Ottawa Archives, RG 84, reel T-9395, Jasper National Park, Trans Mountain right-of-way, 1951-1956.)

Superintendent Dempster forwarded the letter with its policy questions to the Chief of Parks in Ottawa. Director J.A. Hutchison responded:

> Throughout the National Parks of Canada every effort is made to maintain the Parks lands, as far as possible, in their natural state. In the case of the pipeline to which you refer there was no alternative route to the Pacific coast by which the Park could be by-passed. An amendment to the National Parks Act in 1950 authorized the granting of an easement for a right-of-way for the pipeline through Jasper National Park.

This amendment from the 1930 National Parks legislation (Chapter 33) is most interesting and controversial. In previous, the language to provide the Governor in Council with powers to expropriate lands within a national park was primarily related to existing railway lines. In quiet, behind-the-scenes anticipation of the new oil pipeline route the National Parks legislation was overhauled to withdraw the looming conflict - the red light changed to a green light. The 1950 amendment now provided for "the right of way of an oil or gas pipe line or any tanks, reservoirs, pumps, racks, loading facilities or other facilities connected with an oil or gas pipe line…" (Chapter 45).

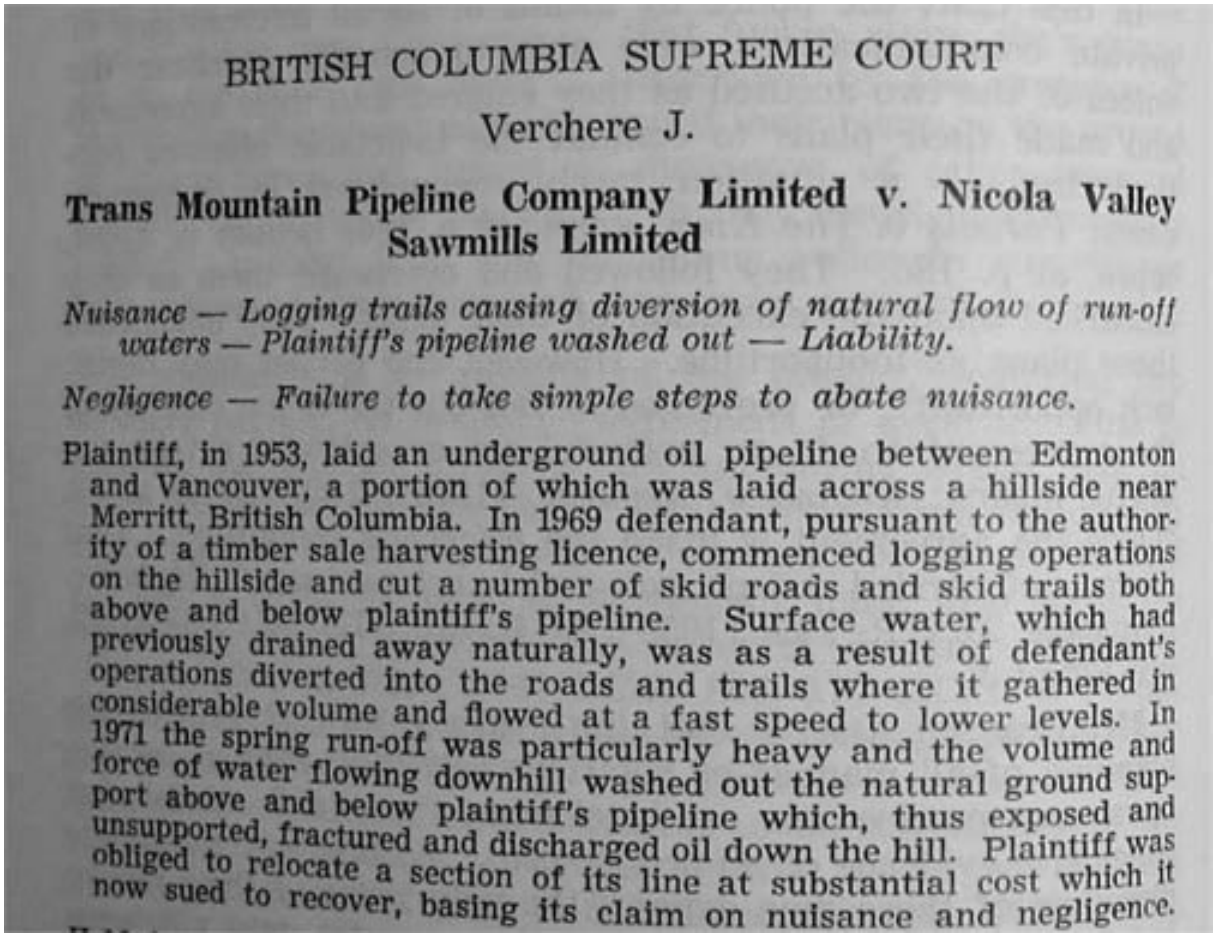
To be fair, in examining this interesting facet of how an oil pipeline was authorized to be built through both a National and a Provincial Park, we then examined the origins of the Canadian National Railway line that also transverses the two parks, because, as has often been the case, there have been numerous spill accidents from railway cars. It turns out that when the Grand Trunk Railway line was being proposed to cross the Rockies over the Yellowhead Pass is when Jasper National Park was created, in 1907. Similarly, Banff National Park (the first Dominion Park) was created through the ascent of the *Rocky Mountains Park Act* (50-51, Vict., c.32, PC 1359, July 6, 1886), following the location of the Canadian Pacific Railway line.

Obviously cognizant of the National and Provincial Parks' sensitive political nature, Kinder Morgan (formerly, Terasen) conducted four preliminary, pre-attendant discussions with Parks Canada, BC Parks and a few environmental organization representatives, who, rightly so, have grave concerns about the additional 30 to 35 meter right-of-way Anchor Loop proposal and its divergent ecological and social impacts. The BCTWA learned of these meetings and was kindly invited to attend the final meeting on January 24-25, 2006, to which we preliminarily forwarded our concerns to Kinder Morgan before voicing them with meeting attendants (Appendix B).

4. TRANS MOUNTAIN'S OIL SPILL HISTORY

During our review of Trans Mountain's oil pipeline operations, we found random information on a few of its oil spill incidents (these are provided in our timeline, Appendix A). All of these incidents were found in old newspaper articles. One of the larger spills, south of Merritt, BC, that occurred on April 26, 1971, led to civil court proceedings by Trans Mountain against Nicola Valley Sawmills. An early spring freshet on a recently harvested clearcut logging operation, located above the pipeline at mile 581.3, initiated a large landslide which undermined 250 horizontal feet of the Trans Mountain pipeline and a railway line, causing the pipeline, now without support, to buckle and rupture with oil streaming out toward the salmon bearing Coldwater River. A description of the incident is recorded in Vancouver Supreme Court Justice Verchere's July 31, 1975 *Judgment* (Vancouver No. 1172/71), where $340,000 in damages were awarded to Trans Mountain. The Company was most fortunate in preventing the oil from reaching into the Coldwater River by mere meters.

The few oil spill incidents made us curious, so we endeavored to find out how many oil spills had actually occurred in the history of Trans Mountain's operations, along with more detailed information on each spill. In preparation for Kinder Morgan's meeting of January 24-25, 2006, we forwarded an email to the company requesting information from the Trans Mountain pipeline, including its oil spill history. Unfortunately, **information on its oil spill history, along with our other requests, was not provided**. Kinder Morgan simply stated during a presentation at the meeting that the company only had 2 oil spill incidents over the last 28 years. When I then followed up on the statement by asking if the company would provide all the information on the pipeline's entire operational history, representatives stated that the information would be difficult to obtain.



BRITISH COLUMBIA SUPREME COURT

Verchere J.

Trans Mountain Pipeline Company Limited v. Nicola Valley Sawmills Limited

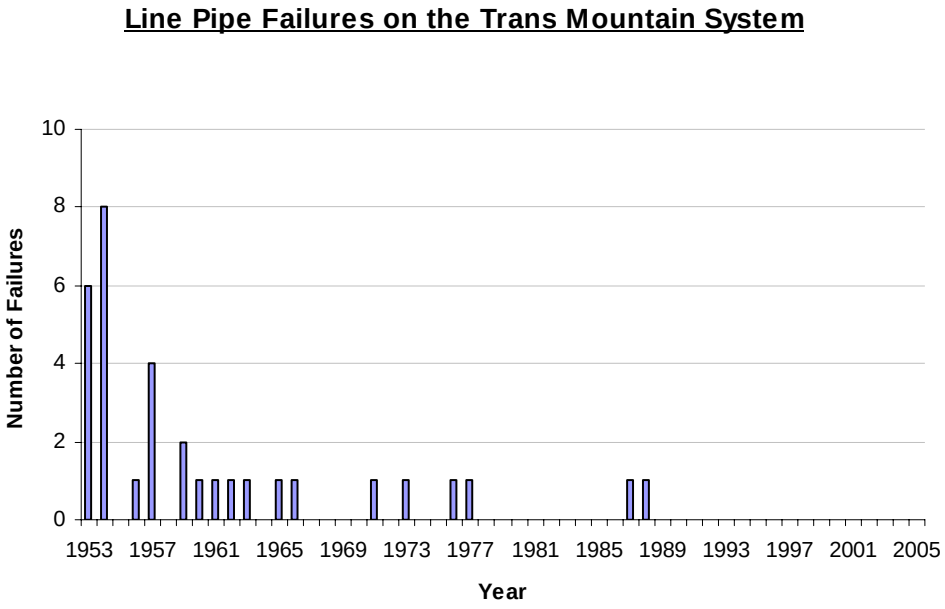
Nuisance — Logging trails causing diversion of natural flow of run-off waters — Plaintiff's pipeline washed out — Liability.

Negligence — Failure to take simple steps to abate nuisance.

Plaintiff, in 1953, laid an underground oil pipeline between Edmonton and Vancouver, a portion of which was laid across a hillside near Merritt, British Columbia. In 1969 defendant, pursuant to the authority of a timber sale harvesting licence, commenced logging operations on the hillside and cut a number of skid roads and skid trails both above and below plaintiff's pipeline. Surface water, which had previously drained away naturally, was as a result of defendant's operations diverted into the roads and trails where it gathered in considerable volume and flowed at a fast speed to lower levels. In 1971 the spring run-off was particularly heavy and the volume and force of water flowing downhill washed out the natural ground support above and below plaintiff's pipeline which, thus exposed and unsupported, fractured and discharged oil down the hill. Plaintiff was obliged to relocate a section of its line at substantial cost which it now sued to recover, basing its claim on nuisance and negligence.

Despite this obvious deflection about publicizing sensitive information, we did manage to discover that Kinder Morgan had already provided such information as simple statistical oil spill data, found on Kinder Morgan's website. According to slides 28 and 29 of Terasen Pipeline's undated Power Point presentation, *Partners in Pipeline Safety*:

- Since 1953 there have been 270 "incidents"
- Most at fixed facilities
- 69 occurred along pipeline
    - 49 spilled petroleum products
    - 13 spilled oil water
    - 7 did not involve loss of fluids
    - 8 occurred in Anchor Loop section.



In reviewing information on the NEB's website, we found similar tabulated information, a descriptive table on oil spill history of all pipelines under its jurisdiction (*Ruptures Spreadsheet*). We had hoped that the NEB would have provided the information we were looking for, but realized that the information only dated back to 1991.

Seeing that we were unsuccessful in obtaining a description of all oil spill incidents on the operational history of the Trans Mountain crude oil pipeline, we request the NEB to make this information available. In particular, we note that Kinder Morgan (formerly Terasen) mentioned (above) that there were 8 incidents in the present Anchor Loop application area. It would be of interest to have the NEB investigate these incidents and to present the detailed information to the public.

THE T.M. TUBE SERVICE

The Trans Mountain pipe line runs under this field and through the forest. A silent river of crude petroleum, flowing in controlled movement from the oilfields of Western Canada to the growing markets of the Pacific Northwest.

Because pipelines are hidden from view under farms, meadows and city streets, landowners are able to utilize the land above them. Pipelines operate quietly, 24 hours a day, in all kinds of weather. They do not belch pollutants into the air, nor do they add to the congestion of the streets and highways.

What pipelines do is remarkable. As a specialized mode of transportation they perform efficiently as the largest single transporter of petroleum in the country. It costs less to move a barrel of crude oil by pipeline than by any other means of overland transportation. It costs about ten times more to send a letter than it does to transport a gallon of petroleum to the same destination by pipeline.

Pipelines are also safer. They are approximately 1400 times safer than trucks and 500 times safer than railroads on a ton-mile basis. Pipelines also require much less energy to move products on a ton-mile basis.

In 1980, the 27th year of continuous operation, the record of safe, efficient operation by Trans Mountain speaks for itself.

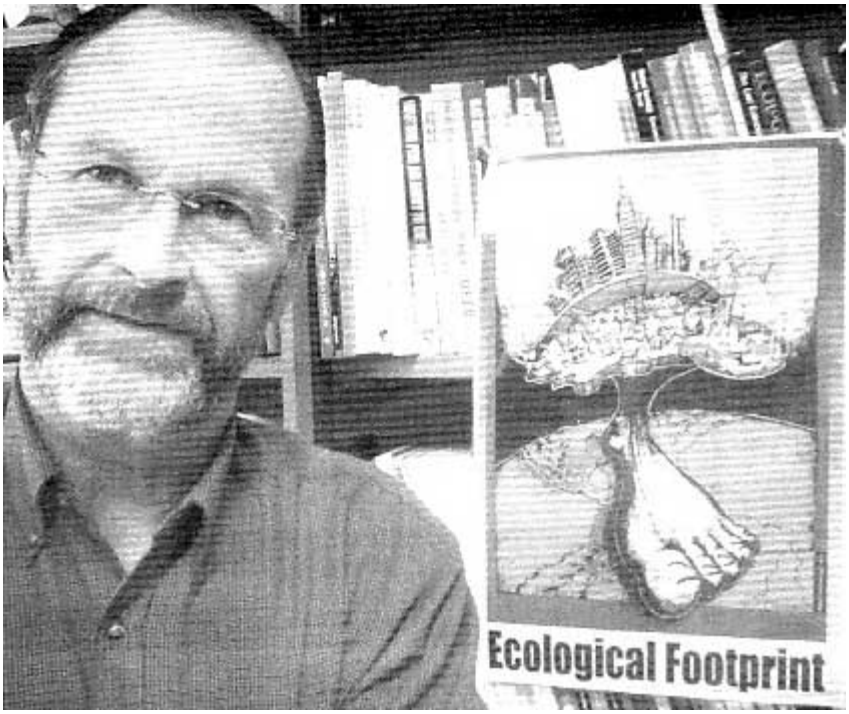
Trans Mountain Annual Report

5. WINNING THE RESOURCE: THE ASSAULT ON ALBERTA'S TAR SANDS' ECOLOGY

During our initial research review of the oil industry and Alberta's tar sands, by early December we were made aware of a critical report recently published on November 23, 2005 by the Pembina Institute for Appropriate Development, *Oil Sands Fever*, and the attendant December 1st Declaration by twelve Canadian environmental groups. It is the only comprehensive and descriptive report written for a popular audience by an environmental research-based organization that addresses the dilemma facing both Albertans and Canadians.

The report helped motivate us in a direction that we were already contemplating, to review and understand the historic reasons why both provincial and federal government agencies had authorized the degradation of the ecology and the pollution of the atmosphere on such an unimaginable scale. As quoted in the report, Dr. Richard Thomas summarizes the multiple and proposed developments as "an ecological holocaust", and Chief Archie Waquan of the Mikisew First Nation states with subtlety:

> When industry talks about footprint, sometimes I think it's an overused term. A footprint … how I know it, is after two or three rains it's gone. A footprint. The footprints you see up north here are not exactly footprints, okay.



As we discovered, over the last ten years the NEB has been provided with federal authority under the *NEB Act* to conduct its operational activities in tandem with the *Canadian Environmental Assessment Act*, and with Environment Canada for the NEB's energy transportation development deliberations. In addition, the NEB also introduced a corresponding environmental policy in November 2000:

> The NEB promotes sound environmental decision-making throughout its activities, consistent with the principles of sustainable development, prevention of pollution, cost effectiveness and in compliance with all applicable environmental legislation and other requirements. (*Environmental Policy*, Kenneth W. Vollman, NEB Chairman, September 2000.)

The NEB then took upon itself to review and comment on the environmental and ecological impacts of Alberta's oil sands developments in two successive Energy Market Assessment reports: the October 2000 *Supply and Market Outlook to 2015* (pages 79-96); and the May 2004 *Opportunities and Challenges to 2015* (pages 61-82). This mandate under the CEAA is an enormous and serious responsibility to be undertaken by what is openly stated as an "independent" governmental regulatory body: i.e., "an independent court of record"; "the NEB is legally independent from the policy arm of

government"; "promotes independent decision making by members"; "an independent federal agency"; and so forth.

We have a legitimate question for the NEB Board related to our following points under this section (5) of the oil sands ecology:

- What is the nature of the NEB Board as an "independent" body, and, how exactly does the NEB Board's independence grant it discretionary latitude to perhaps make appropriate and sometimes difficult decisions and recommendations to the federal Minister of Natural Resources contrary to the stated but questionable aspirations of the oil sands industry and the weak environmental policies of the Albertan and federal politicians?

The long term development and crude production of Alberta's oil sands poses serious ethical questions of past, present and future governmental decision-makers, the present dilemma and supply rationale forecasts to market the unconventional synthetic oil. **If there is a flaw, or flaws, within the ecological framework, then market forecasts may obviously be suspect.**

5a. Alberta's Cabinet Warned in 1972: Limit and Control the Tar Sands Development in the Athabasca River Zone

In Larry Pratt's 1976 book about Alberta's tar sands about the emergence of the Syncrude oil sands development company (the second permit company), he writes at some length about a "confidential" August 1972 interim report, *Fort McMurray Athabasca Tar Sands Development Strategy* (*TSDS*), specifically written for Alberta's Executive Council by the Alberta Conservation and Utilization Committee.

> The Ministers of the Environment, Industry and Commerce and Municipal Affairs requested the Conservation and Utilization Committee to conceptually explore the numerous ramifications of the bitumous tar sands development and suggest a comprehensive development strategy for discussion by the Executive Council. (TSDS, page 1)

Pratt describes how the "confidential" report was later leaked by a deeply concerned anonymous governmental source in an unmarked envelope to political activist Mel Hurtig, chairman of the Committee for an Independent Canada, who then made the confidential report public.

What (one might ask) is in the report that would cause the Alberta government to want to keep it off-limits to the public? Curious, we wanted to study this report - that is, if it was still available. We happily received a copy through an inter-library loan from the University of Alberta, Edmonton. (On the cover is a University of Saskatoon rectangular stamp mark, dated July 21, 1975. We assume this is roughly when the 80-page report was made public, some three years after its publication, and that it was sometime later donated to the University of Alberta.)

We quickly ascertained that the report's authors and editors had a more independent and liberal viewpoint and perspective than is found today in Alberta's provincial government administrators - the contrast is remarkable. From our past research of British Columbia and federal administrations, the report fits into a short renaissance period (the mid-1960s to the end of the 1970s) where Canadians fused together a heightened sense of nationalism with concerns about the ecology under the wide influence of the Trudeau federal Liberal government, a collective intellectual energy responsible for bringing forms of higher accountability within governments. (This era is alluded to by the Committee

in its report: “the recent environmental phenomena and societies greater emphasis on quality of life”, page 58.) Over subsequent decades that inter-governmental administrative independence and outlook unfortunately began to diminish, strongly related to more corporate-oriented agendas that began to take hold in the 1980s. Alberta’s former nationalistic sense was later slowly transitioned by a spirit of separatism, tied to financial think-tank interests to apparently control the destiny of its own resource capital.

The report (27 pages, with 53 pages devoted to dependent appendixes) is a critical benchmark in the recent history (1962 to present) of Alberta’s tar sands development, marking the brief initiation of a systematic, responsible, visionary, strategic analysis by eleven governmental department and agency representatives to Alberta’s elected decision-makers.

> This request was necessitated to overcome previous incremental and un-coordinated operational planning undertaken by government agencies without continuous reference to consistent, common and articulated government objectives and policy. Although some elements of policy did exist as a result of the amended 1962 “Oil Sands Development Policy”, part 6 of the Mines and Minerals Act and the various regulatory and operating procedures arising from the administrative functions of the Energy Resources Conservation Board and the Department of Mines and Minerals, there was no comprehensive policy which interrelated and integrated the bitumous tar sands development to the economic, social and environmental requirements of Alberta residents. (Ibid.)

The methodology and recommendations from this Committee were not haphazard or even speculative. It identified that “this assignment was the highest order of strategic planning” (page 29) from the Executive Council. In writing the interim report: “Written reviews and opinions” came from approximately “100 civil servants”; “50 hours of inter-active discussions among five task forces comprising 30-40 civil servants”; “compilation and review of relevant written material throughout government”; etc. In fact, of the five Committee chairmen, Ecological, Human, Economic, Political and Technical, three chairmen were from Alberta’s recently established Department of Environment.

> This methodology is bridging the gap during the transition from a rigidly structured vertical bureaucracy to a more functional, laterally communicating, problem resolving oriented system of management. (Ibid., page 33)

> Many of the objectives and strategies lie outside the strict interpretation of the legislative purview of the Committee as defined in the Department of Environment Act. (Page 29)

Interestingly, the Committee acknowledged the fact that its findings and recommendations would be controversial, enough so that politicians might even “reject” them:

> The ultimate evaluation of the methodology is Executive Council’s assessment of the suggested objectives and strategies, the subsequent policies arising therefrom, and their interpretation…. Consequently the objectives and strategies could be rejected, not on the basis on content, but as a result of political unacceptability. (Page 31)

The Committee stated the tar sands represented “about one third of the world’s known petroleum reserves” (page 4), thirty years in advance of the Oil and Gas Journal’s 2003 advertisement ranking of the oil sands as the global rival to Saudi Arabia’s oil reserves.

> The development of the bituminous tar sands will undoubtedly shape the socio-economic destiny of Albertans to a far greater extent during the next century than the conventional crude oil

> developments have during the past several decades. Albertans have many options and strategies to consider and many decisions to make.
> On one hand we can continue the policies of the conventional crude oil developments creating tremendous and unregulated growth and developments resulting in short term benefits accruing to the Province … Conversely we can regulate the orderly growth and development of the tar sands for the ultimate benefit of Alberta and Canada … **But when the magnitude of the real, fiscal and manpower requirements and environmental consequences are visualized, it becomes apparent that the latter course of action is imperative** [bold emphasis].

The Committee outlined primary and five secondary objectives. Under the primary objective was stated that "the pressure" at the time to "develop synthetic crude from the tar sands emanates from markets external to Canada":

> Given the fact that the development of synthetic crude oil will be to meet foreign and not Canadian petroleum requirements, then the development of synthetic crude oil from the tar sands must proceed on a scale and rate of development which ensures that substantial benefits accrue to Canadians, and especially Albertans. In fact, these benefits must outweigh any future costs associated with the depletion of the non-renewable resource…. Only after Albertan and Canadian policy parameters have been fulfilled should foreign constraints become operative. In short, Canadian policy parameters should take precedence over all other factors. Foreign energy demands should <u>not</u> be the only force influencing development.

As we now know, that "foreign" "pressure" was later to rise unabated as it did toward the early 1990s with the establishment of the oil industry's National Oil Sands Task Force, with its self-interested forecast of highly rapid oil sands development.

Following the discoveries of Alberta's major petroleum deposits, its administrators were very much aware of the fact that foreign multinationals were highly interested in its energy resources, so much so that there was great concern over the future of Alberta's own control of these interests. These concerns, and their related threats, were openly, candidly, discussed throughout the report under the gateway shadow of Syncrude's proposed tar sands development plans:

> The tar sands offers a unique opportunity to change the historical trend of ever increasing foreign control of non-renewable resource development in Canada. Here is a reserve of the greatest magnitude which does not require highly speculative investment to find and prove. The world wide demand for petroleum will be so compelling within the near future that it should be Alberta's objective to increase Canadian equity participation in the resource developments. (Page 16)

> The essential characteristic of the suggestions is their pro-Canadian and pro-Albertan flavour. The basic premise that the demand for synthetic crude oil is from market's external to Canada, combined with the assumption that substantial net benefits will be derived only if the development is firmly controlled in a manner which complements and supplements that development requirements of Alberta and Canada, leads to the adoption of a pro-Canadian and pro-Albertan policy position. This policy position is viewed as appropriate for a government committed to assuming a role which is supportive of its citizens in their development. (Page 27)

> The future developments projected by the multi-national corporations propose the development of the leases, which they may now hold or intend to acquire, in order that when the technological constraints and economic investment opportunities, relative to world wide alternatives are potentially suitable, to produce synthetic crude oil to meet the growing world energy demands.

They anticipate the capital investment of approximately $750 million per Syncrude sized plant and the subsequent employment of approximately 1,100 to 1,250 men at an annual payroll of approximately $110 million. Often the construction and operating equipment is manufactured outside of Canada. Many of the senior staff positions both in design, construction and operations are filled by non-Canadians. Much of the synthetic crude is planned to be pipelined out of the region or out of Alberta for processing.
At present, the lease potential information, the extraction and processing technology and the capital control is owned by non-Canadians.
The attitude and expectations of the multi-national corporations will be the same in the development of the tar sands as has persisted in the conventional crude oil industry. Their interests lie in the rate of return on their investment within their entire corporate structure spread across many parts of the world. Traditionally their concerns have been to win the resource and transport it to the market in its crude state. Technologically there is no reason why the synthetic crude oil could not be upgraded for various energy forms or used as feedstock in the petro-chemical cycle, although this is not usually done in Alberta. The reason why this has not been done is that it is contrary to the corporate policy which does not consider questions such as Canadian economic sovereignty. (Page 43)

The federal government is currently pursuing a policy of Canadian economic sovereignty as witnessed by the establishment of the Canadian Development Corporation, federal government investment capital in Pan Arctic, prohibiting the proposed Denison Uranium sales to foreign interests, the Grey Report on Foreign Investment Control, etc. In this respect the proposed objectives should be supportive of federal government action, although the action taken by Alberta should be more positive than federal action to date. (Page 44)

The multi-national corporations will vigorously oppose the primary and secondary objectives because it will diminish their control and consequently minimize their profits. Alberta must stand firm in the conviction that the tar sands make up approximately one third of the known world petroleum reserves. Furthermore, as the demand for energy throughout the world increases the price per barrel of crude will increase, and the higher the price rises the more economical it will be for the industry to extract, process and synthesize secondary and tertiary components in keeping with our stated objectives. Alberta owns the supply (one third of the world's known reserve) and the greatest demand emanates from markets external to Canada. With time Alberta should be able to utilize the tar sands as a lever in the socio-economic development of the province. Nuclear energy, geothermal energy, or the Colorado oil shales as a substitute for petroleum products will not be competitive economically or technologically with the tar sands for some time. (Page 46)

What are the reasons for having Albertans participate in the ownership of the tar sands development companies? The most direct reason for the Canadian ownership is that the dividends and capital gains associated with the tar sands development will accrue to Canadians. This will tend to increase the availability of capital (i.e. capital formation) for future investments. Without Canadian participation, dividends and capital gains will accrue outside Canada and Canada will continue to be in a position of relying on foreign investment to develop Canadian resources. Foreign investment often makes it difficult to control the resource development in the best interests of Canadians. (Page 48)

The major constraint in relationship to the multi-national corporations is the lack of their willingness to co-operate with the government and their competitors in providing information, technology and capital in order that a comprehensive regional resource development plan encompassing the entire bituminous tar sands area can be developed. (Page 59)

The interplay between the private corporate bottom line and the degradation to the ecology was also emphasized within the report:

> The attitude and expectations of the multi-national corporations proposing the development is premised on investment opportunities throughout the world, the size of their investment and the ultimate rate of return on that investment. In order that they may maximize their profits they will tend to externalize as many of the costs arising from the projects as can legitimately be done. Since the environmental costs of this development are extremely high and since the current technology and economics of extraction are still in their operational infancy, the tendency will be for the corporate structures to externalize these costs for society to absorb…. But even if the corporations are prepared to accept their responsibility in reclaiming the lands to a state comparable to its initial state, they certainly will not extend this to an enhancement of the environment. (Pages 54-55)
>
> In general, there will be economic constraints applying to the private sector as well as the municipal levels. However, if the premise is accepted that the initiator of a development must pay for the adverse consequences, then it must also be foreseen that the necessary approvals are not given unless the fiscal ability to pay is evident. In those matters relating to municipal or provincial jurisdiction, the royalty or tax structure must anticipate these costs. (Page 60)
>
> Initially, the provincial government funded the research on which much of the tar sands extraction technology is currently based. More recently, however, research has increasingly been carried out by individual multi-national corporations although the Alberta Research Council is still active in this area.
> Unfortunately, however, most of the tar sands research appears to have been directed toward bituminum extraction processes, mining methods, or in situ experiments. We are not aware of any research with respect to tailings disposal, reclamation or revegetation. This apparent emphasis on winning the resource is again an indication of the heavy influence on the conventional crude oil industry. (Page 63)

By 1972, federal and provincial geologists identified the extent of the Athabasca tar sands deposit to be about 5.75 million acres in area, with 7.8 percent of that area, some 430,000 acres, “amenable to surface mining”. In this area were 84 tar sands leases, 34 of which were considered surface mineable and the remainder under in-situ processes (page 35).

The “orderly” development of the tar sands envisioned by the Committee was as follows:

1. There were estimated to be 626 billion barrels of oil, of which about half, or 267 billion, were thought to be recoverable.

2. Based on a tempered maximum production rate of 1 million barrels/day (by the year 2000), from an estimated “eight Syncrude sized plants” (125,000 barrels/day each), it would take about **730 years** to deplete the recoverable tar sands (the year 2700 AD).

3. “Six acres of land will be disturbed daily”, translating to 2,190 acres per year.

4. The volume of tailings waste generated daily would be 2 million cubic yards, or 730 million cubic yards per year.

The Committee's review of the tar sands was based on the government's premise (and powers granted to the oil industry to dictate) that development should continue to occur. However, the Committee provided consensus recommendations on highly cautionary **LIMITED** development, primarily due to its deep concerns about the tar sands ecology (described in the report as the environmental component).

> Although land surface disturbances of in situ processing areas will be extensive, the objective should be to minimize the irreparable damage and maintain the integrity of the watershed. On mineable areas the entire surface will be disturbed resulting in extensive surface topographical alterations with drastic changes to the surface and subsurface hydrology. (Page 12)
>
> Development of an orderly sequence of mining commencing with one drainage basin to fully determine the consequences of the mining and reclamation before other drainage basins are mined. (Page 14)
>
> The zoning and prohibition of mining and tailing sands disposals along the Athabasca River and other designated watercourses required to be maintained to ensure the integrity of the watershed…. Undertake a research program to determine the appropriate surface water and groundwater characteristics and sedimentation studies within the Athabasca River and other streams draining mined areas. (Page 15)
>
> The basic impact on the environment will be partial to total denudation of the surface vegetation, partially disrupted to totally obliterated surface hydrology, extensive changes to the groundwater regime caused by increasing injections and recharge capability modified by a vastly increased permeability rate of the bituminous depleted sands, altered topographical landforms caused by the deposition of spent tailings or the subsidence of depleted sands, massive withdrawals of the surface water from streams and rivers causing physical changes to their stream flow characteristics, heated effluent waters resulting in chemical and biological changes to the receiving waters and atmospheric changes such as ice fog during the winter, atmospheric gaseous emissions containing sulphur dioxide and other compounds, all of which will have disruptive effects on the remaining flora and fauna because of the massive ecological changes. In addition, there will be those environmental changes caused by the numerous transportation and communication networks as well as these increasing populations and their accessibility to the surrounding environs. (Pages 53-54)
>
> The provincial government's existing policy applicable to achieving the environmental objectives is poorly defined, inconsistent, and totally lacking in cohesiveness. The assorted applicable policies reflect departmental or program biases from numerous perspectives; subsurface resource extraction, surface resource development, environmental protection, functional planning, etc. This is as confusing to the internal government system as it is to the external private system.
> Although there is relatively strong legislation governing air and water pollution control, water diversion, resource management, regional planning and energy resources conservation, the legislation regulation and controlling the largest single factor – surface disturbances – is presently inadequate to achieve the objective. The proposed Land Surface Conservation Act presently being drafted would overcome the existing weakness which would permit more effective planning of these developments and also provide for the subsequent reclamation to specified standards. It will also enable cost sharing agreements between the developer and government to permit reclamation beyond its initial state.
> During the past decade, relatively insignificant funds or program activity have been allocated to the research and development required to prepare operational plans for the development of the

> tar sands coincidental with the environmental objectives. Consequently, the government is at a decided disadvantage in this respect, partly because although the development was considered axiomatic but no imminent and it was also assumed that the conventional crude oil industry philosophy would continue to apply to the bituminous tar sands development and that industry would set the direction and trend for their activity. In addition, the recent environmental phenomena and societies greater emphasis on quality of life as opposed to a quest for increasing living standards has also resulted in the state of unpreparation. For these reasons, very greatly accelerated fiscal and program requirements are required to adequately meet this challenge. (Pages 57-58)

Today, of course, the oil industry has managed to raise, significantly, the 1972 Committee's tolerance bar, with a proposed production rate of 5 million barrels/day, and possibly higher, with the projected depletion of the oil sands deposits dramatically falling by the year 2045. By that time, some forty years from now, most of us middle aged participants in this decision making process will have passed away, and the burden of these proposed development rates, and their impacts to the ecology, will have been passed on to our offspring. The oil industry's rationale for this dramatic increase is dependent upon the prospect of new technologies to deliver it/us from the great ecological mischief.

It is evident why some Albertan politicians may have wanted to keep the Committee's report on the tar sands confidential. The top two concerns relate to the Committee's frank comments about private corporations, the "multinationals", and, secondly, the ecology, and the interrelationships between governmental/corporate ethics and the ecology. Instead, the concerns about the ecology were often paid only lip service in the following decades. For instance, in reviewing the TAR Paper newsletter (1978-1994), written by members of Alberta Oil Sands Technology and Research Authority (AOSTRA), the ecology has clearly taken a back seat to the pace of research, development and promotion of the tar sands, despite the few claims to the contrary. And, as it turns out, the very things the Committee warned Alberta's top politicians about have apparently come to pass.

5b. The Federal Department of Environment Critical of Syncrude

In 1971, the federal Liberal government under Prime Minister Pierre Trudeau created the Department of Environment (Environment Canada). Its creation reflected a national public movement about the state of the ecology, and the great concerns by the public on the lack of government action and regulation on impacts to the ecology. In concert, provincial governments also then created Departments of the Environment.

Near the outset, in the summer of 1974, Environment Canada took a strong critical position on Syncrude's Environmental Impact Statement, its proposed tar sands development on Lease 17. According to a descriptive explanation of this issue in Larry Pratt's 1976 book, the Minister of Environment Canada's staff experienced "great difficulty" in obtaining necessary information from Syncrude, stating the company "has failed to appreciate the real scope of environmental concerns and has also failed to address the question of environmental protection in either a realistic or an adequate manner". The Minister's staff report stated:

> The Syncrude Environmental Impact Assessment was found wanting in quantitative data relevant to the existing ecosystem components (biological and physical) on Lease 17 and the Athabasca tar sands in general. The functional relationships of ecosystem components lacked quantification and specific aspects of the Syncrude development proposal lacked adequate clarification to effectively predict the ecological consequences of the project. In view of these

> voids of information, statements presented by the proponent relating to the environmental effects forecast from the development must be considered as conjectural.

By February 1975, both the Alberta and federal governments became partners with private industry in Syncrude and the development of Lease 17, both governments of which announced a new environmental program for the tar sands. The relevant question here is, if these governments were on one hand advocating the exploitation of the tar sands together with primarily American-based oil companies, to what extent would politicians and subservient administrators from the two governments tolerate future probing criticisms from their own respective environmental agencies? Has there, as a result, been a long or more recent tradition of 'looking the other way'?

5c. The Courts

From our review of the history and inter-government involvement on research development of the tar sands, with total combined spending of over one billion dollars of taxpayer funds, there is little doubt that both Alberta and the federal government are deeply involved in the promotion of the tar sands production, promotional activities that were purposely accelerated following the oil industry's National Oil Sands Task Force publications in 1995. This inevitably presents a dilemma, because, given the nature and gargantuan scope of the surface and in situ mining ventures, political trade-offs were made (together with, or primarily by, private industry) over the last 30 or more years to compromise the integrity of the ecology. It is a long, complex, and intriguing history, a story that has yet to be accurately and independently dissected, interpreted and condensed in a formal critical analysis. From our perspective, the state and alteration of the tar sands ecology is the central dilemma (or nightmare) for its proponents, necessitating the involvement of ongoing public relations machinery.

Surprisingly, there have been relatively few legal challenges to the oil sands developers with their deep pockets and governmental support. And, we do not find reference to these matters in the NEB's latest May 2004 Marketing Assessment Report of the oil sands. We attempted to catalogue the legal challenges in the interests of this submission, but were unable to locate a reliable source to provide us with these complete facts. Perhaps the NEB would be so kind as to properly identify and list all of the legal challenges to any and all oil sands operations.

5d. The NEB's Oil Sands Reports of October 2000 and May 2004

The more recent export market production projection graphs of Alberta's oil sands over the next forty years are dependent upon increased "disturbance" to the oil sands' ecology. "Disturb", "disturbed" and "disturbance" are the NEB's prevailing choice of soft terms used for describing the ruination, degradation and obliteration of the ecology, used 16 times in each report in the section dedicated to the environment. Accordingly, the year 2045 is when the now numerous projection graphs begin a sharp downward trend, marking the possible bitter end of the oils sands production to proposed global destinations, most of which are to be directed southerly toward the US by the year 2025, the world's presently largest consumer of crude. In other words, in forty years Canada's largest deposit of unconventional crude is expected to begin plummeting.

If true, then what exactly will these aggressive and cumulative impacts have on our ecology? It's hard to visualize, but a careful comparison of the NEB's two report sections on the environment, specifically its *Conclusion* sub-sections, provide two separate insights.

According to the single-paragraph 2000 report conclusion, “cumulative environmental impacts may increase as overall production increases” (substitute “will” for the term “may”).

The larger four-paragraph 2004 report conclusion:

> The cumulative effects of the projects are beginning to be considered collectively and in a coordinated manner, and companies are combining their individual management strategies…. The economic benefits associated with the development of the oil sands are considerable…. continued efforts to enhance research and development activities, and to create public-private partnerships and supporting government policies and programs, will improve the future of oil sands developments. It will be necessary to overcome barriers, both technical and economic, to the implementation of new methods and technologies that will reduce the overall environmental effects from the oil sands and promote the well-being of people in supporting communities.

The 2004 report’s conclusion is seemingly aimed at comforting the reader, the emphasis of technological solutions towards the reduction of “environmental effects”.

With respect to the 2004 conclusion it is disturbing to note in its report, under *Cumulative Effects Assessments*,

> The environmental thresholds proposed by CEMA (Cumulative Environmental Management Association) for the Athabasca oil sands region have not yet been established and concerns have been identified by several agencies including Environment Canada, the Standing Committee on Environment and Sustainable Development and the Sierra Club of Canada.

Pembina Institute for Appropriate Development’s *Oil Sands Fever* 2005 report presents a more probing investigative summary, making specific critical summary comments on CEMA’s status, the organization established and primarily funded by the oil sands industry:

> While all stakeholders have placed significant emphasis on the success of CEMA, it has been far less effective than originally envisioned. Between 2000 and the end of 2004, CEMA’s working groups produced 52 reports and four recommendations to the government of Alberta, including

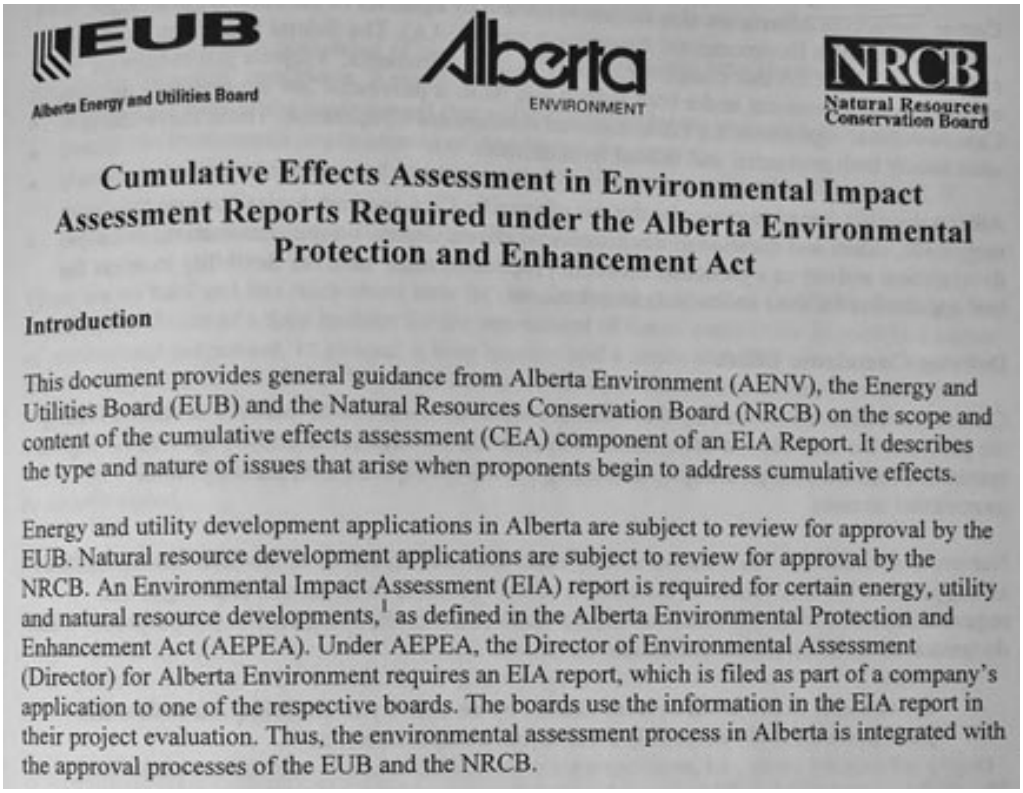
CEMA STREET

These are the People in your Neighbourhood…

Welcome to a new segment of the Sustainable Times! “These are the People in your Neighbourhood” is about getting to know some of the folks involved in the Cumulative Environmental Management Association (CEMA). In this issue meet Judy Smith the Manager of Environment for Oil Sands at Shell Canada Limited, who is no stranger to the oil sands industry. In fact Judy has been involved with almost every oil sands company to date! In 1972, after completing a Master of Science degree in biology at Queen’s University, Judy began working as an environmental consultant in Alberta. In 1997, with 25 years of experience in environmental consulting, and almost one third of this work in the oil sands industry, Judy was the natural choice for Shell’s new oil sands department. Judy’s first project was to oversee the Athabasca Oil Sands Project (AOSP), which received approval in 1999. With work on AOSP underway, Judy is now managing the environmental component of Shell’s newly proposed Jack Pine Mine Phase One project.

Despite her busy schedule with the Shell and Albian Sands mining projects, Judy is also heavily involved in CEMA activities. Judy is a co-chair for both the Sustainable Ecosystems Working Group and the NO_x/SO_2 Management Working Group, and sits on many CEMA committees.

one regional environmental management framework. As demonstrated in Table 7, the timelines for CEMA delivering management plans have been consistently delayed and may not be complete before many more approvals are granted for oil sands development…. Regulatory decision makers such as the EUB have acknowledged that CEMA has not been keeping pace with the rate of oil sands development in the region. While the EUB has made recommendations to various provincial and federal government agencies regarding their role in ensuring that CEMA is effective and the RSDS is implemented, these agencies have done little in response. As a result, an ongoing lack of human resources and limited government leadership has hampered CEMA's ability to achieve its objectives. (Pages 54-55)



EUB
Alberta Energy and Utilities Board

Alberta
ENVIRONMENT

NRCB
Natural Resources Conservation Board

Cumulative Effects Assessment in Environmental Impact Assessment Reports Required under the Alberta Environmental Protection and Enhancement Act

Introduction

This document provides general guidance from Alberta Environment (AENV), the Energy and Utilities Board (EUB) and the Natural Resources Conservation Board (NRCB) on the scope and content of the cumulative effects assessment (CEA) component of an EIA Report. It describes the type and nature of issues that arise when proponents begin to address cumulative effects.

Energy and utility development applications in Alberta are subject to review for approval by the EUB. Natural resource development applications are subject to review for approval by the NRCB. An Environmental Impact Assessment (EIA) report is required for certain energy, utility and natural resource developments,[1] as defined in the Alberta Environmental Protection and Enhancement Act (AEPEA). Under AEPEA, the Director of Environmental Assessment (Director) for Alberta Environment requires an EIA report, which is filed as part of a company's application to one of the respective boards. The boards use the information in the EIA report in their project evaluation. Thus, the environmental assessment process in Alberta is integrated with the approval processes of the EUB and the NRCB.

Defining Cumulative Effects

Cumulative effects are caused by the accumulation and interaction of multiple stresses affecting the parts and the functions of ecosystems. Of particular concern is the knowledge that ecological systems sometimes change abruptly and unexpectedly in response to apparently small incremental stresses.

Numerous definitions of cumulative effects exist. While the nuances of the definitions vary, they all suggest that the assessment of cumulative effects presents some unique challenges that require a departure from conventional impact assessment methodologies. For the purposes of this document, cumulative effects are defined as

> **the changes to the environment caused by an activity in combination with other past, present, and reasonably foreseeable human activities.**

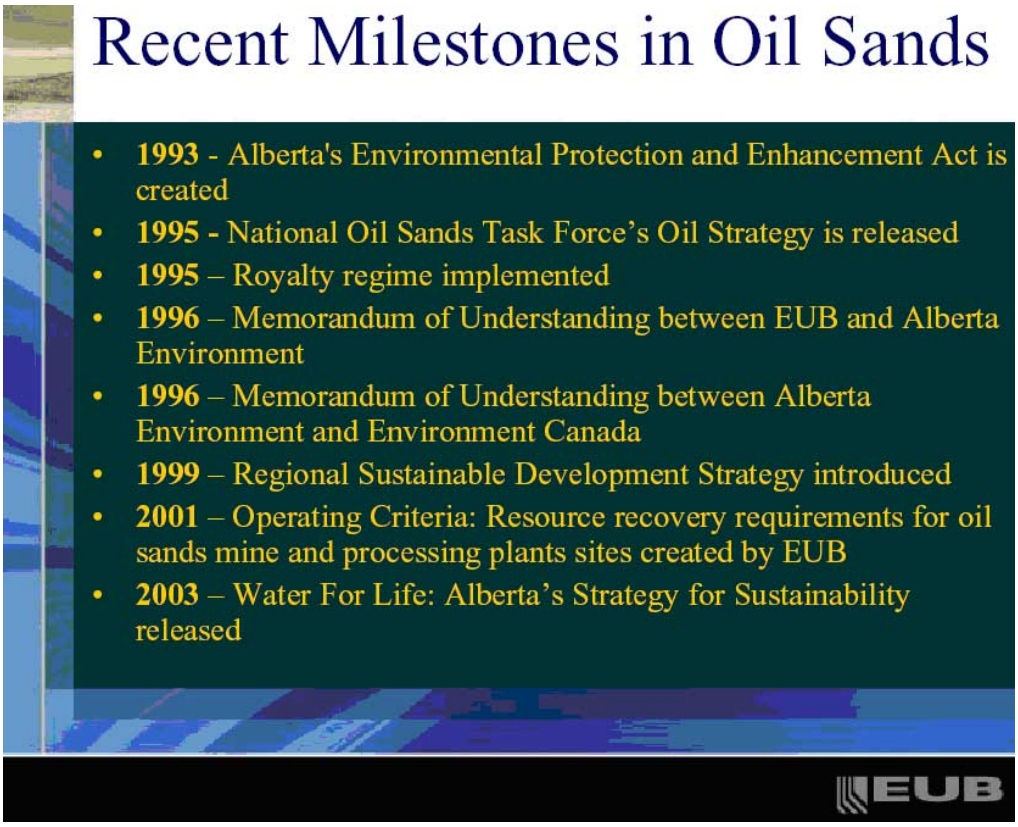
According to a December 20, 2005 Alberta government news release, 11 (eleven) percent of the mineable oil sands lease rights are currently under active development. How large of a land base is eleven percent in square kilometers? In the next nine years, that development is to increase another 14 percent by the year 2015, and an additional 33 percent by the year 2035, for a total of 58 percent of the mineable oil sands area.

As the NEB 2004 report states, projected revenues from private industry to the Alberta government alone are expected to reach about $200 billion over a period of 28 years (1997-2025). This, along with revenues to local and federal governments, and the enormous prospective profits to the oil industry and its clients, is what is really driving the deficient state of cumulative impact assessments of Alberta's oil sands, and the ever increasing temptation by Albertan politicians to overrule and neglect the ecology.

Case in point, the 1996 Integrated Resource Plan (IRP) for the Fort Hills area, McLelland Lake and its wetlands, situated some 90 kilometers north of Ft. McMurray. According to a March 3, 2005 press release by the Alberta Wilderness Association,

> Under the original (1996) Integrated Resource Plan (IRP) for the sub-region (which took four years to hammer out), the McClelland Lake area was placed off-limits to mining. Under pressure from the Klein cabinet, however, it only took the Department of Sustainable Resource Development four months to rush through an amendment to the IRP that permitted mining to proceed. At the EUB hearing in 2002 some oil sands executives suggested other companies would be interested in finding some avenue, such as lease trading, to prevent destruction of MLWC.
>
> At present a mere 0.1% (4.13 km^2) of the 3,450 km^2 oilsands Surface Mineable Area (SMA) north of Fort McMurray is protected, but only as a Natural Area. "McClelland Fen will serve as the lightning rod that focuses world attention on the ecological holocaust now taking place in the SMA of northeast Alberta," says Thomas. Given the overall situation, AWA feels that fully protecting the ecological integrity of MLWC is crucial. Under the EUB approved plan developed by TrueNorth Energy, 40% of the fen would be mined and 50% of MLWC would be directly destroyed. TrueNorth Energy bowed out of the project in 2003 but now PetroCanada has teamed up with UTS to develop the site.

The McLelland Lake example is significant, because it is a symbol of the strong partisan politics in Alberta. What sort of "democratic" government, after careful planning with the public, would openly want to decimate a protected delicate wetland ecosystem because of the almighty dollar? Perhaps it is akin to J.R.R. Tolkien's Lord of the Rings, the ecological doom associated with the rings of power. Could it possibly represent a foreshadowing of things to come?



5e. Alberta's Draft *Mineable Oil Sands Strategy*

> *2. Priority on Oil Sands - Oil sands mining will have the highest priority within the coordinated development zone… Any part of the development zone, excluding areas on the map that are not part of the development zone, is available for mining… Specific conditions related to the protection of wildlife habitat within the development zone will not be implemented prior to or during oil sands mining… Mining operations will be viewed as a temporary impact that will leave behind a new valuable landscape for the benefit of future generations. Reclamation will not replace exactly what existed prior to mining, but will create an ecosystem that fits within the region.*

Released in October 2005, about a month previous to Pembina Institute for Appropriate Development's *Oil Sands Fever* report, the Alberta Conservative government's nine page *Draft Mineable Oil Sands Strategy* is, from our perspective, an excellent example of repressive environmental legislation. Undoubtedly, with the appointment of the new federal Minister of Environment by newly elected Reform-Tory Party Prime Minister Harper, the Alberta government is now anticipating even less opposition from possible future federal criticism on the wholesale physical manipulation, water and atmospheric pollution resulting from the rapid proposed development of the oil sands.

To help iron out this draft legislation, on December 20, 2005 the Alberta government announced the formation of an advisory body to "review and recommend how consultation on policy principles for the oil sands area should proceed." Alberta's Sustainable Resource Development Minister David Coutts is quoted: "Working in partnership with key stakeholders is the best way to find solutions and ensure the public has confidence that development is sustainable." A final report to the Ministers of Energy, Environment, and Sustainable Resource Development was expected by March 31, 2006.

6. BC's OFFSHORE MORATORIUM

As summarized in our timeline, the oil tanker moratorium was introduced over BC's offshore marine waters in May, 1972. It came as a result of growing BC provincial and national public angst on the ruination of western coastal waters and shorelines from oil spills off the California coast and off southwest Vancouver Island. Public relations went into overload for the oil industry as the general media covered the issues. The sparks were still flying three years later as oil pipeline proponents began publicizing their desires to transport crude Alaskan and foreign crude off BC's coast across BC via Kitimat to Edmonton, proponents who later brought applications before the NEB.

Trans Mountain Pipe Line Company's 1975-1977 proposals for reversing (and yo-yoing) its line from Washington State (by added oil tanker traffic) to Edmonton, and its initial involvement with the Kitimat Oil Pipe Line Company for a pipeline from Kitimat to Edmonton (hooking into its present pipeline location through the Yellowhead Pass - the present Anchor Loop application), was met with overwhelming resistance by British Columbians and Washington State citizens, opposed to increased and added oil tanker traffic. Many of the BC residents' concerns were formally registered as oral and written submissions in 1977 during the federal government's legislative legal Inquiry under Commissioner Andrew Thompson, the *West Coast Oil Ports Inquiry*. The first TERMPOL assessment was also conducted, the parent of the present TERMPOL assessment for Enbridge's Gateway proposal. By March 1978, the two federal ministers involved in the proposals ended the matter after reviewing Commissioner Thompson's February 1978 report.

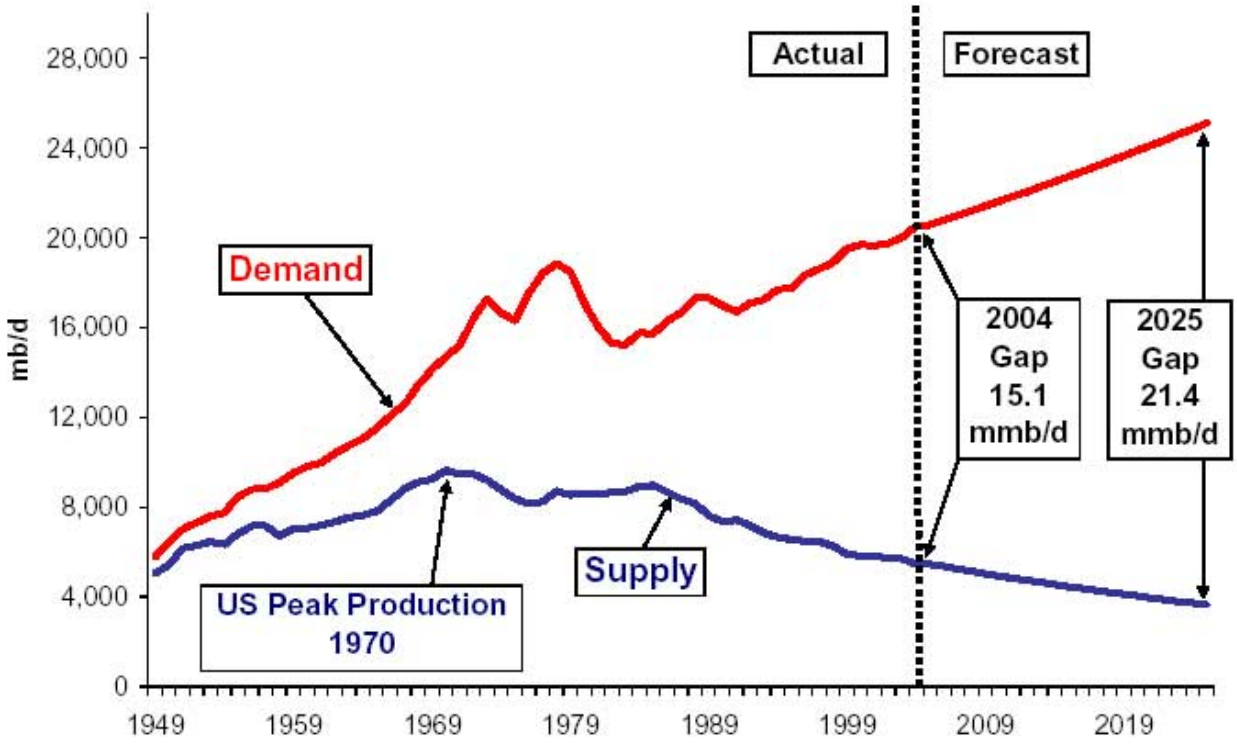
But that did not stop the proponents, the Kitimat Oil Company, from re-emerging after the public opposition to re-register its application with the NEB. This, despite the fact that the Company refused to participate in the Oil Ports Inquiry.

7. NATIONAL SECURITY

Aside from the troubling issues of new pipeline proposals through BC and the related lifting of the oil tanker moratorium, what began to concern us was almost nothing has been stated concerning the fact that Canada, through the Alberta government, was going to sacrifice its tar sands reserves to foreign markets over a relatively short period of time. Given the ominous state of global oil consumption, dwindling global oil reserves, and the influence of fossil fuel production and burning to global warming, the present marketing of the tar sands, as a non-renewable resource, to foreign markets appears to be a threat to Canada's national security.

This threat was openly and correctly delineated by the Alberta Conservation and Utilization Committee in 1972 (summarized in 5.1 above). That concern was part of a nationalistic vision and concern. As has recently been stated by US President Bush, the United States ultimately wishes to divert 75 percent of its national crude oil consumption from traditional foreign sources of crude oil to Alberta's synthetic oil sands reserves by the year 2025. This, in addition to other intended foreign market destinations from oil sands crude. And, as we have learned, there are numerous private industry and government lobbyists promoting the rapid depletion of the oil sands for short term profits.

FIGURE 2: U.S. SUPPLY/DEMAND GAP WIDENING



Forecast assumes a 1% annual growth rate in demand and a 2% decrease in annual domestic production.

Where does Canada's national security fit into the oil industry's vision of the rapid oil sands development? This is a strategic, necessary consideration of the NEB's decision-making on the export of oil to our US neighbor and to foreign markets in its report recommendation to the federal minister of Energy and Resources.

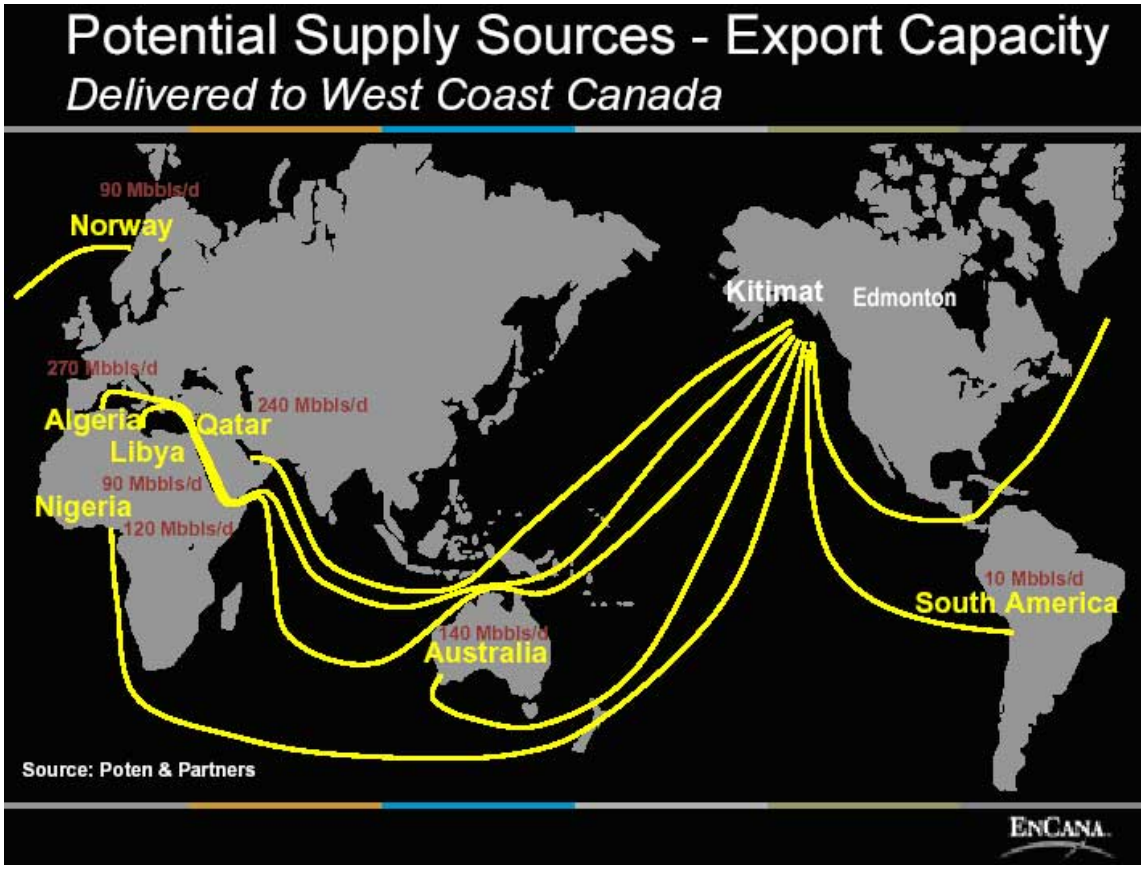
The production of crude oil from Alberta's oil sands is not earmarked for Canadian refineries and consumption. Why is this, particularly since Canada's conventional crude oil reserves are diminishing?

In 2003, Canada's oil consumption was at 2.2 million barrels/day, and rising. According to 2004 statistics, Canada produced 3.11 million barrels/day, 1.37 million barrels/day of which was exported. In 2004 Canada imported 987,000 barrels/day. Why does Canada need to import oil? It seems logical, based on its own present needs that Canada does not need to import oil from foreign reserves. Just like the previous Alberta Conservation and Utilization Committee, government administrators, politicians, and the public should have an ethical and moral duty to defend its national and provincial interests, duties which have seemingly been neglected over the last decade.

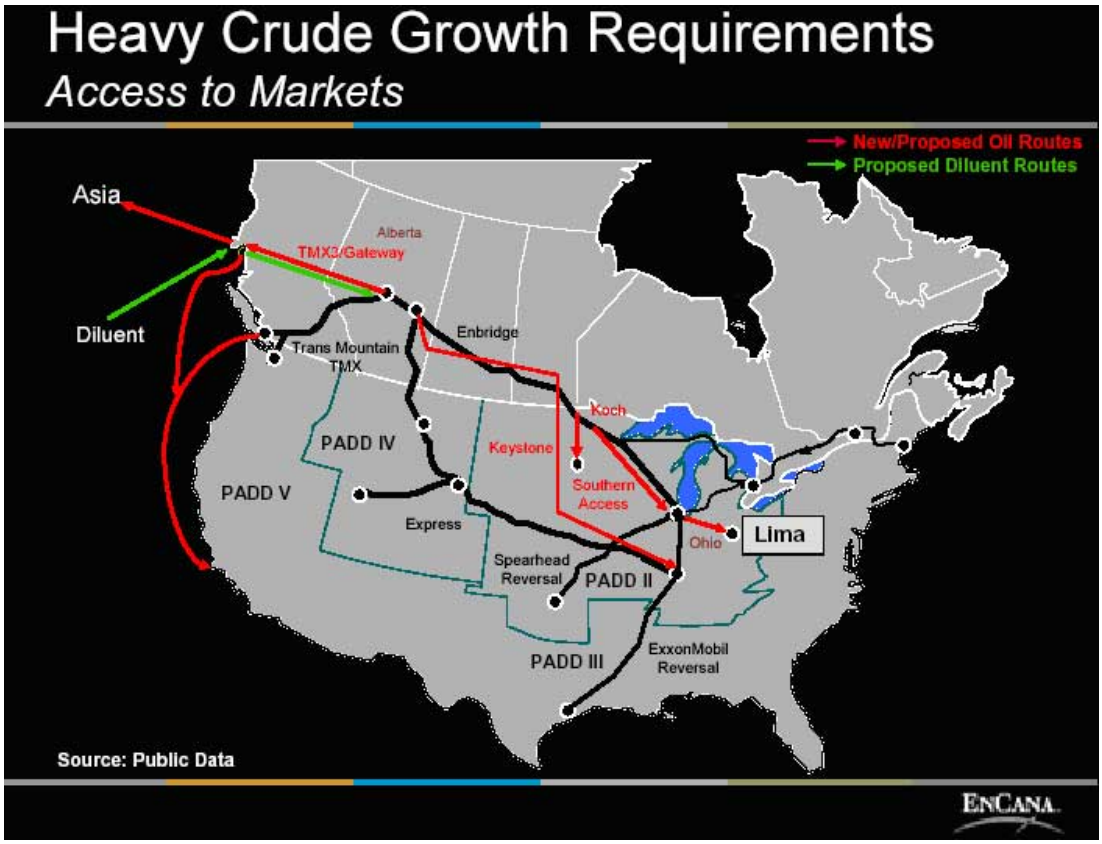
In fact, Canada, like every other nation on this planet, should be implementing mandatory and systematic conservation planning objectives of its oil consumption and/or resources for three reasons:

- concerns about local/global oil reserves;
- concerns related to air pollution and global warming;
- and concerns about the integrity of the ecology.

Oil companies, with their enormous capital profits and reserves, should have long ago been world leaders in investing in research for lower vehicle and transportation consumption of fossil fuels, and ultimately for alternative replacement energies technology. Everyone in the world, especially corporations, have a vital role to play in working together to do so. As is becoming ever more evident, global governments must endeavor, as never before, to legislate these objectives. As societies, we have to collectively rethink and re-administer economic strategies that are so deeply entrenched on increased energy consumption and antiquated "growth" patterns.



These issues go beyond the boundaries of the NEB, as it must, by necessity, operate within the policy framework of the federal government. But it can still consider relevant issues raised by the public that are not as yet, but may some day, become policy.



8. RECOMMENDATIONS

The NEB is the front-line federal inter-provincial agency on energy transport issues, with powers to make "independent" and "environmental" recommendations from its quasi-judicial inquiries to the federal government. In the present Kinder Morgan Anchor Loop application inquiry, and in association with Enbridge's upcoming Gateway proposal, the NEB is in charge of making significant rulings related to the disruption of the ecology: the pace and rate of the oil sands developments; the pipeline proposals to and from Kitimat for the distribution of crude oil and condensate; the proposals to expand and twin Trans Mountain's (Kinder Morgan's) existing pipeline; the lifting of BC's oil tanker moratorium; and the inherent risks from fated future oil spill incidents to fresh water and marine environments. The ecological integrity of BC and northern Alberta is in the NEB's recommendation lap. And given the present Hollywood-like promotional "politics" around the development of the oil sands, we are troubled by the proposals to export crude oil across BC to foreign markets and the combined interest to pipeline import condensate for this purpose. No matter how the NEB may look at, it is very close to the hornet's nest.

The following are our recommendations to the NEB regarding Kinder Morgan, and other pipeline proposals through British Columbia, recommendations that provide the **least possible risk** to our ecology and well being:

1. **Stay clear of, stay out of oil/condensate pipeline projects that involve marine tidewaters.** This relates to: proposals by Kinder Morgan to expand its Trans Mountain operational line for increased export markets from its two west coast terminals; and to Enbridge (and other possible proposals) with its Gateway proposal to Asian (and other) and Californian markets. Reflect on and consider the great public opposition to oil marine transport in the 1970s hearings, and subsequent decades.

2. **Stay out of BC's mountainous, fresh water ecosystems.** This relates to Kinder Morgan's expansion proposals, its twinning projects, and to Enbridge and other related proposals.

3. **Eliminate all pipeline route proposals through British Columbia, and recommend routing new or expanded crude oil pipelines to the United States through Alberta southwards.** Keep pipelines fixed to terrestrial routes only, to existing refineries. Maintain the existing Trans Mountain line **without** expansion proposals, i.e., its Anchor Loop and recently proposed TMX-2 projects.

4. **Necessitate Kinder Morgan to provide a bond for possible pipeline spills on its existing Trans Mountain pipeline system.** We recommend a minimum of 50 (fifty) million dollars (Canadian). Along with such a bond, necessitate Kinder Morgan to provide detailed consultative plans for each community, town, city, along the entire route of the Trans Mountain line for emergency programs. In particular, emergency programs related to public drinking water.

As such, this recommendation should apply right across the board for existing as well as proposed pipelines. Such federal law and policy should exist not only for all pipeline companies, but for other industry as well (i.e., the mining industry). Bonds provide security for local people, government, and the company. As such, bonds encourage best practices.

5. **Consider the recommendations from Alberta's 1972 Committee on the "limited" development of the Alberta tar sands, in order to keep the disruption to the ecology at a minimum.** Given the circumstances explained by international scientists on global warming, the NEB must become the voice of reason in a time that seems to challenge our collective reasoning and visionary processes.