THE MACKENZIE VALLEY PIPELINE INQUIRY*

By the Honourable Mr. Justice Thomas R. Berger†

The Mackenzie Valley Pipeline Inquiry may well be unique in Canadian experience, because for the first time we have sought to determine the impact of a large-scale frontier project before and not after the fact.

A consortium of oil and gas companies, known as Arctic Gas, proposed to build a gas pipeline to bring natural gas from the Arctic Ocean to the mid-continent. The Government of Canada established the Inquiry to see what the social, economic and environmental consequences would be if the pipeline was built, and to recommend what terms and conditions should be imposed.

We were told that the Arctic Gas pipeline project would be the greatest project, in terms of capital expenditure, ever undertaken by private enterprise anywhere.

I described the Arctic Gas project in this way in my Report:

A gas pipeline will entail much more than a right of way. It will be a major construction project across our northern territories, across a land that is cold and dark in winter, a land largely inaccessible by rail or road, where it will be necessary to construct wharves, warehouses, storage sites, airstrips—a huge infrastructure—just to build the pipeline. There will have to be a network of hundreds of miles of roads built over the snow and ice. Take the Arctic Gas project: the capacity of the fleet of tugs and barges on the Mackenzie River will have to be doubled. There will be 6,000 construction workers required North of 60 to build the pipeline, and 1,200 more to build the gas plants and gathering systems in the Mackenzie Delta. There will be 130 gravel mining operations. There will be 600 river and stream crossings. There will be innumerable aircraft, tractors, earth movers, trucks and trailers.1

The Government of Canada decided that the gas pipeline, though it is a vast project, should not be considered in isolation. The Government, in the Expanded Guidelines for Northern Pipelines (tabled in the House of Commons on June 28, 1972) made it clear that the Inquiry was to consider what the impact would be if the gas pipeline was built and was followed by an oil pipeline.

President Carter's Secretary of the Interior, Cecil Andrus, made this point in a recent interview on the subject of northern pipelines. He said:

The problem is that once you go through a particular area with a pipeline, the


† Mr. Justice Berger is a Justice of the Supreme Court of British Columbia, and Commissioner of the Mackenzie Valley Pipeline Inquiry.

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next step is a suggestion by industry to explore for more mineral resources in the corridor of the newly installed pipeline. Then you've got a much more complex situation than you had to begin with, and usually one that wasn't even considered when the original pipeline decision was made.²

So I had to consider the impact on the North of an Energy Corridor that would bring gas and oil from the Arctic to the mid-continent. In fact, under the Pipeline Guidelines, I had to consider the impact of the project on two corridors, one corridor running from Alaska across the Northern Yukon to the Mackenzie Delta, and a second corridor from the Mackenzie Delta along the Mackenzie Valley.

This may well be the most ambitious attempt we have ever made to evaluate change before that change occurs, to determine whether it ought to occur and, if it is to occur, how its adverse consequences may be mitigated.

It isn't easy to predict what the impact of a large-scale frontier project will be. Take environmental impact. Environmental impact may not be sudden and dramatic; it is more likely to be slow and cumulative.

The Northern environment has been described as fragile. It may or may not be. Certainly Northern species have to be hardy to survive. But the fact is that many Northern species are vulnerable at certain times of the year. The question is, what will be the impact of a large-scale frontier project on these species?

The history of North America is the history of the frontier—of pushing back the wilderness, cultivating the soil, populating the land, and then building an industrial way of life. The conquest of the frontier in North America is a remarkable episode in human history, and it altered the face of the continent. The achievement was prodigious, and there is no need to tell how transportation networks were evolved, cities founded, industries established, commerce expanded, and unparalleled agricultural productivity developed. The super-abundance of land and resources gave rise to a conviction that the continent's resources were inexhaustible.

Thus a particular idea of progress is firmly embedded in our economic system and in the national consciousness; but there is also in Canada a strong identification with the values of the wilderness and of the land itself. No account of environmental attitudes would be complete that did not recognize this deeply felt, and perhaps deeply Canadian, concern with the environment for its own sake. In my report I have considered these two sets of powerful, historically entrenched—but conflicting—attitudes and values.

In recent years, we have seen the growth of ecological awareness, and a growing concern for wilderness, wildlife resources and environmental legislation that parallels—although it does not match—the increasing power of our technology, the consumption of natural resources, and the impact of rapid change. But there are situations in which the two sets of attitudes and values simply cannot be reconciled.

The question then turns on the depth of our commitment to environmental values when they stand in the way of technological and industrial advance.

This opposition of views is particularly clear in the North. The northern native people, along with many other witnesses at the Inquiry, insisted that the land they have long depended upon will be injured by the construction of a pipeline and the establishment of an energy corridor. Environmentalists pointed out that the North, the last great wilderness area of Canada, is slow to recover from environmental degradation; its protection is, therefore, of vital importance to all Canadians. It is not easy to measure that concern against the more precisely calculated interests of industry. You can't measure environmental values in dollars and cents. But we must try and face the questions that are posed in the North of today: should we open up the North as we opened up the West? Should the values that conditioned our attitudes toward the environment in the past prevail in the North today and tomorrow?

Let me be clear about the importance that I accord to wilderness. No one seeks to turn back the clock, to return in some way to nature, or even to deplore, in a high-minded and sentimental manner, the real achievements of the industrial system. Rather, I suggest that wilderness constitutes an important—perhaps an invaluable—part of modern-day life; its preservation is a contribution to, not a repudiation of, the civilization upon which we depend.

Wallace Stegner wrote in 1960:

Without any remaining wilderness we are committed... to a headlong drive into our technological termite-life, the Brave New World of a completely man-controlled environment... We simply need that wild country... [as] part of the geography of hope.3

Make no mistake, the environmental issues at stake cannot be sloughed off. Remember, the North really is our last frontier: after we have passed this frontier, there is no other frontier beyond.

The North is immense. But within this vast area are tracts of land and water that are vital to the survival of whole populations of certain species of mammals, birds and fish at certain times of the year. This concern with critical habitat lay at the heart of my consideration of environmental issues.

Let me outline some of the environmental questions that I had to come to grips with in the Report, and that the Government of Canada, and all Canadians, must now consider.

Our national parks legislation, as it now stands, is not adequate to preserve northern wilderness areas, which, if they are to be preserved, must be withdrawn from any form of industrial development. That principle must not be compromised. It is essential to the concept of wilderness itself as an area untrammeled by industrial man.

We should include in our National Parks Act a provision for a new

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statutory creation: the wilderness park. It would consist of land to be preserved in its natural state for future generations. Wilderness legislation has already been in existence in the U.S. since 1964.

I have urged that the Northern Yukon, north of the Porcupine River, be designated a national wilderness park.

Let me tell you why: The Northern Yukon is an arctic and subarctic wilderness of incredible beauty, a rich and varied ecosystem; nine million acres of land in its natural state, inhabited by thriving populations of plants and animals. This wilderness has come down through the ages; it is a heritage that future generations, living in an industrial world even more complex than ours, will surely cherish.

If you were to build a pipeline from Alaska along the Arctic coast of the Yukon you would be opening up the calving grounds of the Porcupine caribou herd. This is one of the last great herds of caribou—110,000 animals—in North America. Every spring they journey from the mountains in the interior of the Yukon, to the calving grounds on the Arctic coast. There they are able to leave the wolves behind, they can forage on cotton grass, and bear their young before the onset of summer mosquitos and bot flies.

In late August, as many as 500,000 snow geese gather on the Arctic Coastal Plain to feed on the tundra grasses, sedges and berries, before embarking on the flight to their wintering grounds. They must build up an energy surplus to sustain them: indeed, so must all other arctic waterfowl and shorebirds store up energy for their long southward migration to California, the Gulf Coast, or Central and South America.

The peregrine falcon, golden eagle and other birds of prey nest in the Northern Yukon. These species are dwindling in numbers because of the loss of their former ranges on the North American continent and because of toxic materials in their food. Here in these remote mountains they still nest and rear their young, undisturbed by man.

One-fifth of the world's whistling swans nest along the Arctic coast of the Yukon and in the Mackenzie Delta region. The Old Crow Flats, and the Arctic Coastal Plain provide critical habitat for other waterfowl, including canvasback, scaup, scoter, wigeon, old squaw and mallard. These northern wetlands are particularly important during years of drought on the prairies. Then the waterfowl flock North in much larger numbers than usual, and are thus able to survive to breed again in the South in more favourable years.

You will find polar bear on the ice along the coast, the barren-ground grizzly on the open tundra, and the black bear around Old Crow Flats. You will find moose and Dall sheep, wolf, fox, beaver, wolverine, lynx and, of course, muskrat.

Thus the proposal by Arctic Gas to build a pipeline across the Northern Yukon confronted us with a fundamental choice. It was a choice that depends not simply upon the impact of a pipeline across the Northern Yukon, but upon the impact of the establishment of a corridor across it.

This ecosystem, with its magnificent wilderness and scenic beauty, has
always been protected by its inaccessibility. With pipeline construction, the development of supply and service roads, the intensification of the search for oil and gas, the establishment of an energy corridor, and the increasing occupation of the Northern Yukon, it would no longer be inaccessible to man and his machines.

I also recommended that a whale sanctuary be established in Mackenzie Bay. In summer the white whales of the Beaufort Sea converge on the Mackenzie Delta to calve. Why? Because the Mackenzie River rises in Alberta and B.C., and carries warm water to the Arctic. So, the herd—some 5,000 animals—remains in the vicinity of the Delta throughout the summer, then leaves for the open sea. For these animals the warm waters around the Mackenzie Delta, especially Mackenzie Bay, are critical habitat, for here they have their young. Here in these warm waters, the whales stay until the calves acquire enough blubber to survive in the cold oceanic water. Nowhere else, so far as we know, can they go for this essential part of their life cycle. We must preserve these waters from any disturbance that would drive the whales from them.

Dr. David Sergeant of the Department of the Environment, Canada’s leading authority on white whales, summarizing his evidence to the Inquiry, stated:

>. . . the population of white whales which calves in the Mackenzie is virtually the whole of the population of the Beaufort Sea. I postulate that simultaneous oil and gas activities throughout the whole Delta in July each year could so disturb the whale herd that they would be unable to reproduce successfully. In time, the herd would die out. If we wish to maintain the herd, we must initiate measures now which we can be certain will allow its successful reproduction annually.  

Is a whale sanctuary in west Mackenzie Bay a practical proposition? What will its effect be on future oil and gas exploration? Will it impose an unacceptable check on oil and gas exploration and development in the Mackenzie Delta and the Beaufort Sea? We are fortunate in that the areas of intense petroleum exploration, to date, lie beyond the main calving area in West Mackenzie Bay. A whale sanctuary can be set aside, and oil and gas activity can be forbidden there without impairing industry’s ability to tap the principal sources of petroleum in the Mackenzie Delta and beneath the Beaufort Sea.

The trend of exploration appears to offer us an opportunity to set aside certain offshore waters as a whale sanctuary. This trend is by no means a certainty. In the final analysis, the Government of Canada will have to decide whether or not to protect this herd of whales. If we decide to protect them, we must establish a sanctuary that will be inviolate regardless of the prospects for oil and gas discoveries. Once a discovery was made within the sanctuary, it would be difficult to resist the urge to look for other reserves near it. We must decide whether we are going to protect these animals or not. If we are going to protect them, we must establish a whale sanctuary now.

We look upon the North as our last frontier. It is natural for us to think of developing the North, of subduing the land, populating it with people from

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4 Supra note 1, at 65.
southern Canada, and extracting its resources to fuel Canada's industry and heat our homes. Our whole inclination is to think in terms of expanding our industrial machine to the limit of our country's frontiers. We have never had to consider the uses of restraint, to determine what is the most intelligent use to make of our resources. The question is, are we serious people, willing and able to make up our own minds, or are we simply driven by technology and egregious patterns of consumption, to deplete our energy resources wherever and whenever we find them?

I do not want to be misunderstood about this. I am not proposing that we shut up the North, as a kind of living folk museum and zoological gardens. I have proceeded on the assumption that, in due course, the industrial system will require the gas and oil of the Western Arctic, and that they will have to be transported along the Mackenzie Valley to markets in the South. I have also proceeded on the assumption that we intend to protect and preserve Canada's northern environment, and that, above all else, we intend to honour the legitimate claims and aspirations of the native people. All of these assumptions are embedded in the federal government's expressed northern policy for the 1970s.

I have sought to reconcile these goals: industrial, social and environmental. I proposed a wilderness park in the Northern Yukon and urged that no pipeline cross it, but at the same time I indicated that the Alaska Highway route, as a corridor for the transportation of Alaskan gas to the Lower 48, was preferable from an environmental point of view.

I proposed a whale sanctuary, but I limited its boundaries to waters where no discoveries of gas or oil have yet been made.

I recommended the establishment of bird sanctuaries in the Mackenzie Delta and the Mackenzie Valley. Oil and gas exploration and development would not be forbidden within these sanctuaries, but it would be subject to the jurisdiction of the Canadian Wildlife Service.

I advised the Government that a pipeline corridor is feasible, from an environmental point of view, to transport gas and oil from the Mackenzie Delta along the Mackenzie Valley to the Alberta border. At the same time, however, I recommended that we should postpone the construction of the pipeline for 10 years, in order to strengthen native society, the native economy—indeed, the whole renewable resource sector—and to enable native claims to be settled.

Well, you all know the outcome. The Government of Canada rejected the Arctic Gas pipeline proposal and decided that, if a pipeline were to be built, it should be along the Alaska Highway route. Now an agreement has been reached with the U.S. for the construction of a pipeline along the Alaska Highway route.

The pipeline debate is in one sense over. But it has precipitated another debate, a debate about some fundamental questions.

Since the Industrial Revolution we have thought of industrialization as the means to prosperity and well-being. And so it has been, to many people and to many parts of the world. But the rise of the industrial system has been
accompanied by a belief in an ever-expanding cycle of growth and consumption. We should now be asking whether it is a goal that will suffice. Ought we and our children to continue to aspire to the idea of unlimited growth? And, equally important, ought the Third World to aspire to this goal?

The question is whether unlimited growth for all can occur. Can all of us in Canada realistically expect that we can live by a philosophy of endless growth? Can we hold to a goal of endless growth and offer the same goal to all other people of the world? Does fairness require that the same goal should be open to people throughout the world? If we cannot do both, does this mean that we must reconsider the goals we have set for ourselves here in Canada?

There is a related question. Perhaps we ought to consider whether the industrial system may not be at all times and for all people the best way of improving their standard of living. Dr. Ian McTaggart-Cowan has said:

> Is the only way to improve the lot of a country's citizens the way of industrialization, whether it be the western way or the forced march of the USSR?...

> Almost inevitably, diversity is sacrificed to a spurious efficiency. The loss of diversity is not merely a matter for sentimental regret. It is a direct reduction in the number of opportunities open to future generations.

> As we look toward the end of the 20th century...we see...this diversity threatened by dominant societies pursuing goals that, though they have produced a rich material culture, are already eroding the sources of their original stimulus.\[5\]

Must the future necessarily be, for all people, urban, industrial and bureaucratic?

Our belief in an ever-expanding cycle of growth and consumption conditions our capacity and our willingness to reconsider, or even to contemplate, the true goals of the industrial system. There is a feeling that we cannot pause to consider where we are headed, for fear of what we shall find out about ourselves. Yet events are pressing hard upon us.

Until 1875, the principal source of energy on this continent was wood. From 1875 until 1950 it was coal. Since then our principal sources of energy have been oil and gas. In Canada today 75 percent of our energy comes from oil and gas. Our consumption is enormous. And we in North America have become the most wasteful people on earth.

In the last fifteen years, world use of energy has doubled. North America now uses about five times as much energy as is consumed in the whole of Asia, and per capita consumption is about twenty-four times higher. The United States each year wastes more fossil fuel than is used by two-thirds of the world's population.

Certainly if anything is plain, it must be that we on this continent shall have to get along with a smaller proportion of the world's energy and resources. This entails a reconsideration of conventional wisdom.

I am not urging that we dismantle the industrial system. It has been the means to the material well-being of millions, and an engine of prosperity for

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\[5\] Id. at 199.
our country. But I do say that we must pause, and consider, to what extent our national objectives are determined by the need for the care and feeding of the industrial machine.

I have said that we believe in an ever-expanding cycle of growth and consumption. I think the time is coming when we must reconsider this view. It is not only we in the industrial democracies who are being urged to do so. Aleksander Solzhenitsyn, in his “Letter to the Soviet Leaders,” reminded them of:

... what any village graybeard in the Ukraine or Russia had understood from time immemorial and could have explained to the progressive commentators ages ago, had the commentators ever found the time in that dizzy fever of theirs to consult him: that a dozen worms can’t go on and on gnawing the same apple forever, that if the earth is a finite object, then its expanses and resources are finite also, and the endless, infinite progress dinned into our heads by the dreamers of the Enlightenment cannot be accomplished on it.6

He went on:

We have squandered our resources foolishly without so much as a backward glance, sapped our soil, mutilated our vast expenses with idiotic “inland seas” and contaminated belts of wasteland around our industrial centers—but for the moment at least, far more still remains untainted by us, which we haven’t had time to touch. So let us come to our senses in time, let us change our course.7

The issues are in fact profound ones, going beyond the ideological conflicts that have occupied the world for so long, conflicts over who was going to run the industrial machine, and who was going to get the benefits. Now we are being asked, how much energy does it take to run the industrial machine, where does the energy come from, where is the machine going, and what happens to the people who live in the path of the machine.

I suggest that we should be considering these questions on their merits, and should not drag along suitcases full of ideological baggage that has ceased to have any relevance.

When I say we must discard our ideological baggage, I do not want to suggest that we should reject the wisdom of the past. No doubt the views of every great economic theorist from Marx to Friedman (and all of those between) are useful as tools of analysis; my point is that political leaders of all political faiths throughout the industrialized world are driven by the same forces, forces that can only be assuaged by endless growth. What I am saying is that we have some hard thinking to do. The issues that confront us are not only economic, to be resolved by the application of ideological formulae. They are issues that, under close examination, can be seen to have a moral and ethical dimension. Our task will not be made any easier by the use of shop-worn ideological labels.

I have said that our resources are limited. Some say that they are not. Well, suppose they are right? Does that change everything? Or is it arguable

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7 Id. at 26.
that even if our resources are not limited, there may be something to be said for behaving as if they were?

Capitalism (and I include under this heading all the regimes of the industrialized democracies, as variants on the capitalist economic model) and communism constitute two forms of materialism competing for the allegiance of men in the world today. Neither has yet come to grips with the necessity for rethinking the goals of the industrial system. I venture to suggest that the system that insists upon the greatest measure of free thought, free speech and free association has the best chance of coming to grips with these fundamental questions.

So we stand on the leading edge of history, driven by forces that require greater and greater use of energy, and greater and greater consumption of dwindling resources. Can we change direction? Upon that question depends the future of the world we know and of our environment.