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## Let's Eliminate Threat of Chemicals

by Hon. John Roberts  
Minister of the Environment

Every day more and more chemicals are introduced into our society and, through their use and disposal, enter the environment. Others, like the dioxins, are unwanted by-products of industrial processes. Some of these substances present hazards to human health and the environment because of their toxicity.

The assessment of these chemicals and the control of those found to be toxic has now become a major priority of my department. This is reflected in the recent establishment of the Toxic Chemicals Management Program, in cooperation with the Department of National Health and Welfare. This program is intended to integrate all aspects of toxic chemicals management, initially within my department and, as our expertise and capacity allow, with other federal and provincial departments.

My department is also developing new legislation to increase the federal government's ability to address present and future threat. Furthermore, Canada is actively participating in international programs to standardize methods for testing the environmental and health effects of industrial chemicals. Good progress is being made in this area.

The toxic chemicals problem is complex. We will need the cooperation of producers, users and governments to ensure the safety and well-being of our population and the environment, and to ensure that the public has the information on this subject to which they are entitled. I am personally determined that these objectives will be met.

John Roberts  
Minister

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## Hiking a Highroad of History

Imagine hiking, riding, camping or picnicking along a trail thought to have been used some 8 000 to 9 000 years ago. This is the Alexander Mackenzie Grease Trail connecting the British Columbia coast with the interior.

About 400 km long, the trail extends from a point on the Fraser River, halfway between Quesnel and Prince George, westward up the Blackwater River, through Tweedsmuir Provincial Park to Provincial Highway 20, some 59 km east of Bella Coola.

It was used by Indians to carry candlefish oil, furs and skins for trade. In 1793 Alexander Mackenzie, following "the great road" the Indians told him about, reached the Pacific. He became the first European to cross the full width of the continent, 10 years ahead of the Lewis and Clark expedition in the United States.

Now a four-year agreement to develop this historic trail has been approved in principal by the BC lands, parks and housing department and Parks Canada. An official joint signing ceremony should take place on the trail this May. The development plan will embody suggestions from the public.

The trail is named "Alexander Mackenzie Grease Trail" after the explorer and the candlefish oil carried by the coastal Indians. Candlefish, or in Chinook jargon "eulachon", is a member of the smelt family and can be dried and burnt as a candle. Every spring spawning runs drew interior Indians down

to the coast to trade or pay resident Indians for the right to fish. Some was eaten fresh, some dried, the rest processed for its valuable oil. Candlefish oil is solid at ordinary temperature, does not go rancid and lasts indefinitely. It was a preservative for berries, meats and medicine, and a prized potlatch gift. The candlefish grease was carried over the trail in cedar boxes.

A process for Indian involvement in developing the trail has been worked out.

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# Changing Attitudes toward Environment

by J. Blair Seaborn  
deputy minister, Environment  
Canada

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Blair Seaborn, deputy minister of Environment Canada, recently shared these observations with department employees. Here he shares them with you.

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We sometimes forget how environmental thinking has changed since Environment Canada was formed, and how much has been accomplished. The changes are reflected in our own work, in that of our provincial counterparts and in public attitudes and actions.

A few years ago, I described three generations of environmental thinking in Canada to NATO's Committee on the Challenges of Modern Society. Since then a fourth generation has begun to emerge, with important implications for DOE's role.

The first generation focused on the direct effects of pollution and on measures to control them. This was initially reflected within the Environmental Protection Service and in federal statutes -- in amendments to the Fisheries Act, Clean Air Act, Canada Water Act, Environmental Contaminants Act and the Ocean Dumping Control Act.

It was further reflected in federal-provincial agreements and consultative measures. It became evident in government-industry cooperation through such programs as the Development and Demonstration of Pollution Abatement Technology.

The second generation of environmental thinking looked beyond immediate pollution

control to underlying causes. It recognized pollution as a measure of resource misuse, and sought the cure by reducing the wasteful use of resources.

This thinking was sharpened by the energy shortage, and energy conservation is very much a part of its strategy. It has prompted governments to develop resource management policies based on sound ecological principles -- not just on economics.

Second generation thinking is reflected in our legislation. It fostered part of the Canada Water Act providing for federal-provincial shared-cost agreements on comprehensive river basin planning. This includes determining the social costs of water pollution, studying alternative institutional arrangements, and encouraging public involvement.

The same kind of thinking has inspired research into renewable energy resources, including research and development to produce methanol from forest wastes.

The third generation approach is based on still more fundamental considerations. It recognizes that our very existence on this planet depends on our ability to live in harmony with the environment. It brings about a change in our behavior -- basically a change from a consuming to a conserving society.

This thinking sees the need for a thorough study of environmental problems in order to resolve them. In Environment

## Continuation of Changing Attitudes

Canada, this is reflected in scientific research aimed at providing a better understanding of ecological and physical systems.

The same concerns prompted a series of conservator society projects, to explore the social, environmental, technological and economic implications of "doing more with less".

The fourth and latest phase of environmental thinking takes a still broader view. It sees the linkages between environment, development, lifestyles and institutional values, and takes them all into account.

This approach was evident in a study of development alternatives in Canada sponsored by DOE -- Canada's main contribution to the United Nations Environment Program seminar on Alternative Development and Lifestyles held at the end of 1979. It regards environment as "everything around us", and therefore treats environmental problems as rooted in our cultural traditions and social institutions.

With this broader approach there is less reliance on government action to deal with environmental problems.

Each one of us, inside and outside government, has a useful contribution to make -- at work, at home and in the community.

Environment Canada may be called upon to play a new role -- to highlight public issues not commonly recognized as environmental, and to help effect constructive action to meet the challenges of the 1980s.

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### J. Blair Seaborn

J. Blair Seaborn, 57, was appointed deputy minister of Environment Canada on December 31, 1974. He was previously an assistant deputy minister in Consumer and Corporate Affairs.

Born and educated in Toronto, he graduated in political science and economics from the University of Toronto in 1947, received a master of arts degree in 1948. He joined the Department of External Affairs, serving as a foreign service officer in The Hague, Paris, Moscow and Saigon.

He returned to Ottawa in 1966 as head of External Affairs' East European Section, in 1967 was appointed head of the Far Eastern Division. He joined Consumer and Corporate Affairs in 1970.

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## Program to Control Toxic Chemicals

Recent events have underlined the hazards to human health and to the environment from the use, transport and disposal of toxic chemicals. Among them, is the danger posed by PCBs, dioxins and the disposal of industrial waste.

Last July, the Department of the Environment launched the Toxic Chemicals Management Program (TCMP) to coordinate its activities in this field. TCMP is aimed at meshing the federal and provincial governments' efforts to bring toxic chemicals under control.

The program seeks ways to reduce the harmful effects of substances already in the environment, to encourage the creation and use of less harmful alternative substances, processes and technologies, and to control the release of toxic substances. At the same time it will be important to keep the public informed about the origins, pathways and effects of toxic substances, as well as measures to control them.

The program is administered by the Toxic Chemicals Management Centre (TCMC), currently working to develop departmental priorities for toxic chemicals control. It involves a thorough familiarization with Canadian programs dealing with toxic chemicals. It will then be possible to identify the necessary horizontal links between the various programs and to begin the task of forging these links. Thus the centre will become a focal point in the department's efforts to cope with this problem.

The centre will have a significant role in aiding implementation of the new environmental protection policy and attendant legislation, which will itself emphasize the management of toxic chemicals. Within the program, the department will cooperate actively with other federal departments, provincial governments, private industry and other countries to meet this threat which ignores boundaries and jurisdictions.

Acting director general of the centre, Dr. Jim Brydon, also serves as executive secretary to Environment Canada's ADM-level Toxic Chemicals Steering Committee, chaired by EPS assistant deputy minister Ray Robinson.

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## Canada & US Reciprocity in Clean Air Act Amendment

A significant amendment to the Canadian Clean Air Act was passed by Parliament on December 17, 1980. This gives the federal government, upon recommendation of the Minister of the Environment, discretionary authority to control pollutants affecting another country, even without an international agreement in place. The amendment applies only to countries providing reciprocal protection.

The United States Clean Air Act (1977) has a similar provision. It allows the US government to require modification of state air quality programs to reduce emissions affecting the health or environment of persons in another country, if the offended country provides reciprocal protection.

Thus Canada gives the US federal government legislative reciprocity necessary to regulate air emissions to protect the health and environment of persons in Canada. The Canada/US Memorandum of Intent of August 5, 1980 called for application of existing legislation while an agreement is being developed. Thus the new Canadian amendment becomes an essential element in the Canada/US acid rain program to help reduce acid-causing pollutants from sources in numerous states and provinces.

Canada and the US are currently developing the technical basis for an agreement on air quality. Formal negotiations will begin in June 1981, based on the reports to be produced by Canada/United States working

groups. The first report was released on February 13, 1981.

The amendment will not change existing federal and provincial governments cooperation in air pollution programs. It underlines the federal government's clear preference for action by provincial governments to reduce air emissions affecting another country. It reflects the fact that the amendments were not passed to intrude into provincial jurisdiction, but rather to put the US federal regulatory agency on a sound legal footing to enforce existing American legislation.

The Canadian Clean Air Act is the focus of the federal government's air pollution control activities. Regulations under the act protect the health of Canadians by limiting emissions of hazardous produces such as lead, mercury, vinyl chloride, asbestos and arsenic. Guidelines for industry, which can be adopted by provincial air pollution control agencies, are also issued under the act. Such guidelines have been issued for the cement, asphalt paving, coke oven, packaged incinerators and wood pulping industries and for arctic mining operations.

### Further Information:

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# The Mountain Pine Beetle

One of Canada's most destructive forest pests, the mountain pine beetle, attacks and kills several western pine species, particularly lodgepole pine in British Columbia and Alberta. In BC alone, in 1979, the beetle killed more than 14 million pines, about 10 percent by volume of the annual cut of all species in that province.

Damage to Canada's forests by insects and disease is even greater than that caused by fire, and the mountain pine beetle does a more thorough job than most pests. It usually attacks mature trees, about 80 years old and ready for harvesting; but recently, because the beetles have become so numerous, much younger trees have been attacked.

About 7 mm long, the beetle lays eggs in galleries bored under the bark, at the same time introducing "blue stain" fungi which kill the tree by cutting the flow of water up the trunk. A tree can die within 12 months of infection. After maturing under the bark, the new generation of adult beetles bore exit holes and fly to infest new areas, often carried considerable distances by strong winds.

In British Columbia, mountain pine beetle damage has been greatest in the south central and southeastern interior. One of the hardest hit areas is the Nelson forest region which, with its hot dry summers and relatively mild winters, provides ideal breeding conditions for the insect.

In Alberta, one outbreak was recorded in Banff National Park in the early 1940s. In 1977 a fresh outbreak was detected in the southwestern part of the province. The outbreak has since expanded, probably because of a series of mild winters, and now includes Waterton Lakes, Kootenay and Yoho National Parks.

The beetle threatens most of the lodgepole pine stands in the Rockies. Its spread northward in the mountains and east in the foothills would have a major impact not only on Banff and Jasper National Parks but on Alberta's most important timber producing areas.

To contain the outbreaks, close cooperation between the various government agencies is needed. The Canadian Forestry Service (CFS) has had discussions with Parks Canada and the Alberta Forest Service, and more are planned. CFS and Parks Canada are working toward an arrangement whereby Parks Canada could draw on CFS expertise for assistance in forest protection. The Pacific and Northern Forest Research Centres of CFS are cooperating with the Alberta Forest Service on pest management problems.

Further information:

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## Caribou Face Tough Future

Can the huge caribou herd that roams from Alaska to the Northwest Territories survive another century of human expansion and development? Wildlife experts from the Canadian Wildlife Service and the United States Fish and Wildlife Service think not, unless there is joint protection and management.

In 1978, Canada and the US began work to establish a migratory caribou agreement to protect those herds north of 60° that migrate between the two countries. Attention focused on the 100 000-strong Porcupine caribou herd, a unique and irreplaceable natural resource.

Over the past two years the Canadian Wildlife Service has held discussions with the territorial governments, native organizations, conservation groups and other federal departments on measures to control hunting, and to protect and possibly enhance the habitat.

CWS is especially concerned with the scientific study of caribou behavior and its relation to habitat. Careful management to conserve the herd is a major objective. Since the Porcupine herd regularly migrates between Canada and the United States, neither country by itself can wholly accomplish this goal.

Indians, Métis and Inuit in both countries depend on caribou from the Porcupine herd. Its Canadian range, which includes much of the northern half of the Yukon and the Richardson Mountains in the Northwest Territories, is also a scene of

mineral exploration with related transportation facilities. Native claims covering both land and wildlife in the range are now being negotiated. A proposal to create a wilderness park and national wildlife area was given impetus when much of the herd's summer range in Canada was withdrawn from other uses in 1978.

The extensive discussions with interested parties have resulted in the development of a broad outline for a Canada-US migratory caribou agreement. The outline calls for a Canada-USA Migratory Caribou Commission to make annual recommendations on the size and allocation of the take, habitat protection measures and research. Each country would be responsible for managing its share of the range and the herd within its borders.

A Canadian Porcupine Caribou Management Board has been proposed. This would include representatives of the federal and territorial governments together with Indian, Inuit and Métis representatives.

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## Response to Public Consultation

Since release last August of the draft Policy on Public Consultation and Information Availability, 28 meetings were held at headquarters and in the regions, from October 1980 to January 1981. There were more than 200 responses from a wide range of private and public interest groups, labor organizations, professional and trade associations, academic institutions and concerned individuals. In centres large and small, from Toronto, Montreal and Vancouver to Corner Brook, New Liskeard, Kelowna and Whitehorse, senior officials listened to the many comments.

Briefs and responses are currently being analyzed. Based on this analysis, recommendations will be drafted for changes to the policy, for approval by the department's senior management committee. The new policy, in final form, should be available by the scheduled implementation date of April 1, 1981.

Groups and individuals who commented on the draft policy will receive a detailed response from the department.

This consultation process allows the public to express its views and concerns fairly and openly, in cooperation with the department rather than as adversaries. As a result, environmental awareness and support of departmental efforts should increase. Broad public participation in the decision-making process should also lead to more effective and efficient environmental regulations and policies.

Further information:

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## Calendar

May 3-5 - Environmentally Compatible Hydro Development Conference, sponsored by the Canadian Water Resources Association (Ontario region); Chateau Laurier Hotel, Ottawa.

Details from:

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Conference Chairman  
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28th Congress of the International Union of Pure and Applied Chemistry. Vancouver, August 16-21, 1981.

One of the major portions of the program is entitled "Chemistry in the Study of the Environment".

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## Forums Examine Use of Chemicals

"Awash in the Chemical Sea" is the title of a series of three evening forums on chemicals, the environment and health, being held in Toronto's St. Lawrence Centre.

On March 4, four speakers surveyed the uses and misuses of chemicals in our society.

On March 11, speakers will discuss the scientific evidence required in Canada before a chemical product is allowed in use. They will review the registration procedure and factors such as social utility, risk assessment and risk acceptability. Finally they will suggest ways in which the

public can participate in the regulation and control of chemicals.

On March 17, four speakers will tell of their own successful struggles to control the environment, and offer the benefit of their experiences. They will discuss the status of environmental and workplace legislation in Ontario, and how citizens can bring about reform.

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## Offshore Oil Workshop

Some 350 persons attended a three-day workshop on "Offshore and the Environment in the '80s" in St. John's last December 2-4. They represented governments, universities, the oil industry and its suppliers, the media and public interest groups from all over the world.

The workshop was the first in the Atlantic provinces to deal comprehensively with possible environmental and social hazards from oil and gas exploration and production off the east coast.

Discussion focused on oil pollution and other environmental concerns, on information gaps and monitoring requirements, and on measures for environmental and social protection. There was special attention to the problems of Newfoundland and Labrador,

including fears that the oil and gas industry would drain needed manpower from the fisheries.

Other special topics included the social impact of North Sea oil and gas development on the Shetland Islands, the iceberg hazard and the technical requirements for drilling rigs and platforms.

The delegates were welcomed by Newfoundland Environment Minister Ron Daine.

