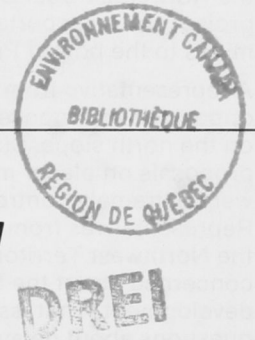


Update

Special Report July '83

National Consultation Meeting '83



Participating in the Future, Now

I had the opportunity this spring to meet a variety of people and groups to discuss in a national forum a wide range of environmental concerns. The headquarters public consultation meeting on May 4 and 5 was one such occasion. This meeting, and those convened in the regions are an important element of the department's Policy for Public Consultation and Information Availability.

This policy not only encourages systematic communications between the department and various groups. It provides regular and predictable channels of access to the department, which interested groups and individuals can count on when they wish to present a point of view or obtain information.

The comments we receive at these meetings are essential to our planning process. In my view, we have to deal with environmental problems on the basis of managing risk, taking decisions with necessarily limited scientific understanding - limited because scientists never cease to improve and add to our knowledge. Increasingly, environmental phenomena will be seen to be complex, not simple, and often international rather than local in scope.

We must know how to manage our knowledge — and how to manage our lack of knowledge — so that the call for more research, more information, more precision does not become in practice simply an excuse for not taking action. We must be able to judge when knowledge is sufficient, when we know enough to act though it might be possible to know even more. Without doubt, our consultations with the public help us to arrive at this point.

I have not sufficient space in this forum to review all the items raised during my recent meetings with various public interest groups. However, as an indication of the scope and variety of these discussions, I want to list a few of the points of interest which the ENGOs brought to me during their national meeting in Ottawa on May 2.

The groups from British Columbia prepared and submitted a list of



Honourable John Roberts speaking with delegates

We in Environment Canada are committed to the view that nobody, no one group and no one government knows enough to decide, a priori, our collective use of the environment. To do that, we Canadians must meet together locally, regionally and nationally to consult with each other. This takes time and patience, but it is the only way for charting our common course on environmental matters.



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Participating (continued from page 1)

projects and programs which they believe threaten, or could threaten, the environment. They mentioned environmental hazards presented by the North East Coal Development project and transportation of coal from mines to the port of Prince Rupert.

A representative from the Yukon told of opposition to proposed development on the north slope. She indicated that proposals on placer mining regulations were extremely controversial. Representatives from the prairies and the Northwest Territories were concerned about the Slave River hydro development. That issue raised questions about delays in implementation of the Mackenzie River Agreement and the status of negotiations on the Migratory Birds Convention Act. Other concerns included the monitoring and enforcement of air and water quality regulations in Alberta. Several questions related to parks were raised, including the staging of Olympic Events at Lake Louise, the current management plan and the need for an environmental assessment if further development is envisaged. The

Garrison project and the need to continue our current efforts vis-a-vis the U.S. was also discussed.

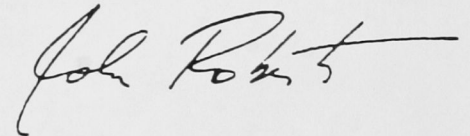
Ontario people called for Canadian controls on acid rain, regardless of U.S. action. They also expressed concern about nuclear waste and the proliferation of agencies with nuclear responsibilities. They recommended that Environment Canada be given the lead role in this area. There was also support for our position on lead in gasoline.

The Quebec group had specific concerns regarding forestry. They questioned whether or not a proposed plan to remove sulfuric acid from emissions at Noranda would be feasible and asked if the federal government could assist in the definition of control options in Quebec. Because of the pollution of the St. Lawrence River and its connection with pollution in the Great Lakes, the group from that region suggested that the St. Lawrence should be a concern of the International Joint Commission.

The delegation from the Atlantic region spoke of opposition to pesticide

spraying, environmental assessment of Sable Island, gas development, acid rain, parks, uranium mining and soft energy paths. They expressed the need for research on forestry problems specific to the Maritimes, particularly planting, development of hardwoods in Prince Edward Island, and herbicides for small woodlots and conifers.

Along with Environment Canada officials, I have listened carefully and with great interest to what has been said to us. We have, of course, been aware of many of these issues, and are working with other departments, agencies and governments to resolve them. But this input will guide us as we work in the next few months to form our departmental strategic plan.



John Roberts, Minister

Attendance

More than 200 people attended the second annual headquarters public consultation meeting in Ottawa last May 4-5. They came, first, to advise Environment Canada on tackling its priority issues and programs. And second, they came to discuss how they could cooperate with the department in carrying out its objectives.

Senior departmental officials were present to hear their views. However, apart from this opportunity to trade ideas with department officials, participants said one of the most rewarding aspects of the meeting was the chance to meet with other citizens representing such a broad spectrum of interests.

Taking part were environmental organizations such as Pollution Probe, the National Survival Institute, the



Consultation meeting registration

Attendance *(continued from page 2)*

Canadian Wildlife Federation and the Canadian Coalition for Nuclear Responsibility. There were representatives too from oil companies, the banking community, chemical companies and utilities, as well as consultants.

Also represented were medical and research organizations such as the Canadian Association for Children and Adults with Learning Disabilities, the Canadian Institute of Child Health, and the Canadian Public Health Association. Women's organizations such as the Federated Women's Institute of Canada and the National Council of Women sent representatives, along with native peoples' organizations such as the Society for the Preservation of Indian Identity and the Metis Association of Alberta.

So did Carleton, Concordia, Queen's, Ottawa, Toronto and Trent universities, and associations such as the Canadian Institute of Forestry, the Association of the Chemical Profession of Canada and the Canadian Federation of Agriculture.

Labor sent representatives from the Union of Canadian Transport Employees and the Canadian Labor Congress. Recreational participants included Allied Boating of Canada and the Fédération québécoise de canot-camping. The United Church of Canada sent a representative, as did the Regional Municipality of Niagara. Then, of course, there were a number of concerned individual citizens.

Participants gave the department useful suggestions to develop its strategic plan. On the first day, in workshops, some discussed future human needs in relation to socio-economic and environmental factors, Canada's resource base, possible alternative courses of action, and what the department, interested groups and individuals could do to generate sustainable economic development. Other workshops reviewed the department's priorities.

An evening reception was attended by Environment Minister John Roberts and other senior officials. This provided an opportunity for participants to know each other and to hold less structured discussions.

The second morning was devoted to specific issues. There were workshops on acid rain, parks and tourism,

forestry, water, wildlife habitat, nuclear energy and lead in gasoline.

Participants decided to divide the toxic chemicals workshop into two groups, to permit more in-depth discussion; one of them concentrated on waste management and pesticide-related issues, and the other on risk analysis.

Aimée Lefebvre-Anglin, Environment Canada's new assistant deputy

minister for planning, chaired the plenary sessions which concluded each day's sessions. Deputy Minister Jacques Gérin, presented the concluding remarks.

Environment Canada is grateful for the valuable advice and other contributions made by all the participants. A very special thank you goes to all who took part.

Scheduling

A change in the scheduling of public consultation meetings gives participants a greater chance to influence department policies and programs. Last year's headquarters meeting took place a month after Environment Canada had published its 1982 strategic plan. But now the department holds headquarters meetings in the spring and regional meetings in the fall, so that input from them can be fed into the department's planning process at the proper stage.

The department's Corporate Planning Group is responsible for input from the regions and services at headquarters into Environment Canada's strategic plan. This plan addresses two basic questions: the department's priorities and the principles it will follow to obtain the desired results.

It takes considerable time to consider all aspects of these issues and integrate them into the strategic plan. The plan must, for example, take account of the department's international as well as national responsibilities involving the

environment and Canada's natural resources.

Region offices begin preparation of their regional outlooks early in the new year. By holding consultation meetings in the previous fall, they have time enough to assess advice they receive and to take note of it in preparing these documents. These identify trends in the regions and lists priorities for action. At the same time, services begin to prepare their own input into the plan. All this input — from regions and services — is sent to the Corporate Planning Group before the headquarters public consultation meeting, for inclusion in the coming year's strategic plan.

Deputy Minister Jacques Gérin will soon be holding a think-in with his assistant deputy ministers and officials from the Corporate Planning Group to discuss broad outlines of the 1983 strategic plan. Input from this year's headquarters public consultation will have an important influence on this process.



DM Jacques Gérin and ADM for planning, Aimée Lefebvre-Anglin

Bouquets

"The dialogue was impressive," said one of the 200 participants in this year's headquarters public consultation meeting. And this summed up the views of most of the others. "It is a good opportunity to see what the opposition is saying," said the representative of one special interest group. "An interesting divergence of opinion arrived at by different groups studying the same problems," observed one industry representative.

Another welcomed the opportunity to discuss well-organized topics with senior department personnel, to "elucidate concerns". A member of an environmental group praised "the department's willingness to hear the public." And others were delighted to find department officials "unbureaucratic" and "approachable", not given to "spouting official lines" or "government jargon". Comments on the workshops were mostly positive. "The use of unbiased facilitators contributed to more organized discussion," said an industry representative. "It provided much more constructive and useful dialogue between the three main sectors in the consultation process — government, special interest groups and industry."

Not everyone agreed, however. "Do not use outside consultants as facilitators," pleaded one participant. "Our facilitator was so concerned to get answers to specific questions that she cut off discussion, so that she could get answers up on the board." But this was apparently a minority view.

"Constructive, with just sufficient disagreement to keep the discussion lively and enjoyable," was how another participant described a workshop on sustainable economic development. Many persons felt however, there was not enough time to deal with all the issues in which they were interested.

Said one industry representative: "The vast majority of participants have expertise and interest or concern in more than one of the various environmental issues presented. But the structure of the agenda allowed adequate participation in only one workshop."

The diverse backgrounds of the participants was a frequently mentioned advantage, but some commented on who was not there. Other participants wanted provincial

representatives to attend, along with people from Agriculture Canada and other federal departments. It was noted, also, that there was no one from the tourist industry at the parks and tourism workshop.

Someone from the academic community offered this suggestion: "Allow for follow-up to special sessions, with further meetings on a specific topic held in Ottawa with groups invited."

Missing Link

A "spiritual link to the earth", as felt by native peoples, was missing from this year's headquarters public consultation meeting, a Métis representative complained.

In an eloquent address to the closing plenary session, Lorraine Sinclair of the Métis Association of Alberta said the participants' commitment and technical expertise should be blended with the native peoples' experience of living in harmony with the natural environment.

"When I see and feel the energy and dedication that environmentalists are devoting to the protection of our earth, and I see the expertise and information that can be made available through the Department of the Environment, and I know the experience of Indian people through the teachings of our elders — it has to be brought together."

She asked the department to consider holding future consultation meetings in a natural setting. "For the department to really get in touch and feel all that is around us, I would encourage it to have conferences where you can feel the earth."

Monika Behr, of the Newfoundland-Labrador Wildlife Federation and a first-time participant at the consultation sessions, was surprised by the intensity of the two-day meeting. "It's very draining," she said, "and it's very hard work to channel the emotions that are involved with a lot of these issues, and turn them into something that is not disruptive but something that is progressive."

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Lorraine Sinclair of the Métis Association of Alberta with John Roberts

Listening

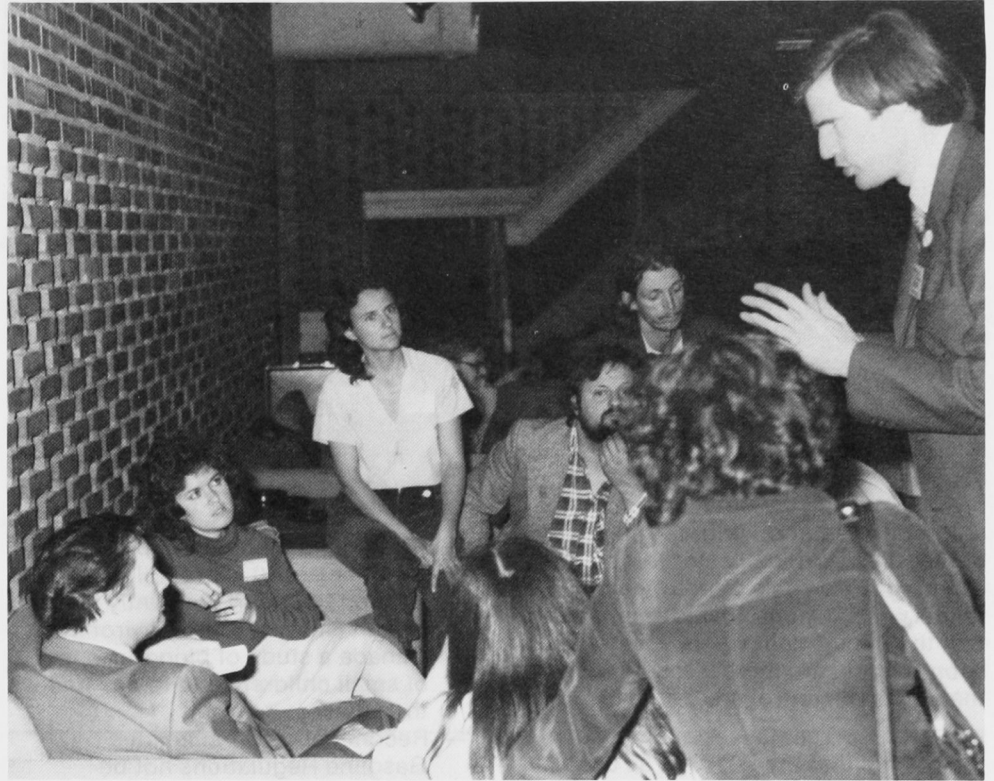
"What are you going to do with our comments and suggestions?" "Can we really influence your policies and your program?" "Haven't you already decided what you are going to do?" There was some basis for such questions at last year's headquarters public consultation meeting. But how things have changed since then!

"I want to be frank and realistic," (then) senior assistant deputy minister Jacques Gérin said last September. "Our department's strategic plan has already been approved. This meeting will not substantially modify its content, but some of our perspectives, some of our activities, will be modified.

"We have just officially launched a process of exchange and dialogue. This is a first step, initially planned some 10 years ago, and we fully intend to follow it up."

The second official step was taken at the second national consultation meeting May 3 and 4, with new assistant deputy minister, Aimée Lefebvre Anglin, in the chair. This time, she said, things were different: "You have an even greater chance, I'd say, to influence the department's orientation, because our basic document - the department's strategic plan — is only at the thinking stage. Your comments will be listened to." Toward the end of the summer, all participants in this year's meeting will receive a report on the department's follow-up to their recommendations. Later they will receive a copy of Environment Canada's revised strategic plan.

A further series of regional consultation meetings will take place across Canada in the fall. Then Environment Canada will again be listening.



Environment Minister with members of ENGO organizations

Lead

The workshop on lead in gasoline attracted representatives of companies, industrial associations, environmental organizations and child health groups, as well as private individuals. Opinions expressed were diverse, and often conflicting, so there were no unanimous recommendations.

Martin E. Rivers, director general of Environment Canada's air pollution control directorate, summarized the background of the proposed phase-down of lead in gasoline. He noted that the 60-day period for comments on this proposal was to end on May 11. However, many participants objected that it was difficult to comment if the socio-economic impact analysis (SEIA) was not available. Industry representatives were concerned that the minister might already have decided on the extent of the phase-down.

They discussed the National Air Pollution Surveillance (NAPS) network,

which monitors ambient air in major Canadian cities. A representative of the child health groups was concerned that curbside lead levels are significantly higher than the monitoring station readings of ambient lead levels.

Representatives of environmental and child health groups noted there are no safe levels for lead, and that many other industrialized countries have more stringent limitations on lead in gasoline. Industry participants emphasized the lack of Canadian studies relating to automotive lead emissions, blood lead levels and human health effects.

There was a discussion of "The Health of Canadians — Report of the Canada Health Survey" (Health & Welfare Canada, Statistics Canada, 1981) and the South Riverdale (Toronto) study released recently. Industry representatives contended that ingesting lead paint chips was more

Lead (continued from page 5)

hazardous to children's health than automotive lead emission.

Referring to the Minister's seeking advice on the pace and extent at which the lead phase-down should proceed, Mr. Rivers outlined six control options being assessed by Environment Canada: 0.77 g/l; 0.29 g/l; 0.15 g/l; lead-free; lead-free except 0.15 g/l; for heavy trucks; .77 g/l; and a lead trap for all new cars.

Concern was expressed about some assumptions used in the department report "Control Options for Lead Phase-Down in Motor Gasoline" (February 1983). Reducing the lead content of gasoline would decrease the Research Octane Number (RON — minimum value being essential to prevent "knock" or early ignition in the automotive engine). With the selection of the RON a critical factor in estimating the costs of petroleum refinery expansions, it was emphasized that the department wants substantive submissions, not merely assertions that costs of control are "too high".

Industry representatives expressed their belief that the 92 RON, as used by the department for its assessment, would induce engine knocking. However, it was maintained that the 94 RON, perceived by refiners as being require for consumer satisfaction, should not be ascribed to lead regulations.

Discussion followed on alternative uses of high octane chemicals such as MTBE (methyl tertiary butyl ether) and alcohols (methanol or ethanol) for increasing the octane number of the gasoline pool. Use of methanol would reduce crude oil imports and increase natural gas consumption.

It was suggested by one participant that the Control Options Report ignored the replacement cost of about \$400 for each catalytic converter. Another participant noted, however, that since there is no official inspection of the catalytic system, motorists do not replace the converter unless it falls off. Positions of the groups participating in the workshop in summary are:

Primary Lead Industry

- Favored maintenance of the status quo (.77 g/l).
- Suggested lack of medical evidence to justify lead phase-down.
- If erosion of lead markets continue, the primary lead industry would be affected by phase-down.

Petroleum Refiners

- Favored maintenance of the status quo, unless Environment Canada can document the health basis for lead phase-down.
- Will present written submission to DOE and Environmental Groups
- Favored complete elimination of lead in motor gasoline as soon as possible.
- Will publish position paper.

Child Health Associations

- Supported the lead phase-down in stages (i.e. to 0.29 g/l, to .15 g/l and to zero lead) since no safe level of lead exists.
- Will make written submission.

Lead Additive Manufacturers

- Contended that natural phase-down over the last 10 years will continue.
- Offered to undertake jointly with Health & Welfare and Environment Canada a study of blood-lead levels of small children, and to pay half the costs.
- Recommended that Leaded Gasoline Regulations not be amended until such a study is completed.

- Emphasized that complete phase-out of lead in gasoline would cause shut-down of the Ethyl Canada Sarnia plant with loss of 280 jobs.
- Noted that the significant retail price differential between leaded and lead-free gasoline far outweighs the comparatively small savings on vehicle maintenance from using lead-free fuel.

Automobile Manufacturers

- Agreed that natural lead phase-down will continue.
- Support preservation of present octane level of at least 93 RON for regular gasoline.
- Will make written submission.

Manufacturers and Marine Engines

- Favored continued availability of leaded gasoline since about two million existing marine engines cannot operate on lead-free fuel.



An informal opportunity to make a point

Canada — U.S.

Relations between Canada and the United States were a prime focus of the acid rain workshop. Environment Canada was urged to continue negotiations with the U.S. aimed at reaching an agreement on transboundary air pollution.

Workshop participants came from environmental non-governmental companies. ENGOs and industry representatives asked Environment Canada to facilitate more frequent discussion between the two groups, by organizing a series of workshops on ways to reduce sulfur dioxide emissions in Canada.

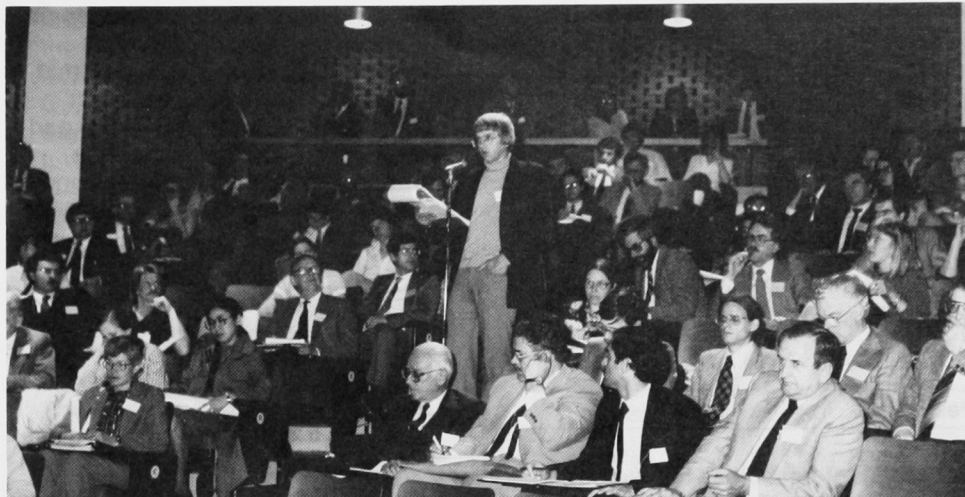
Both groups acknowledged the value of public consultation sessions, but were dissatisfied with the short periods allotted for discussion. They failed to reach a consensus on all the workshop's recommendations.

Although more action was needed to reduce emissions, participants urged consideration of steps already taken to develop new programs.

There was unanimous agreement that Environment Canada should further support the public information program of the Canadian Coalition on Acid Rain. Meanwhile the department should increase its own information efforts concerning Canadian emission sources, actions already taken and future steps to reduce emissions.

Participants made a number of recommendations concerning scientific research programs. They called for continued efforts to improve quality control in sampling acid precipitation, expansion of the existing monitoring networks, and adequate research regarding health effects.

Other areas of concern include action on the recommendations from last year's public consultation sessions, details of socio-economic studies, and problems experienced by industry in reducing emissions responsible for acid rain.



Workshop plenary session

Nuclear

The nuclear workshop attracted mainly environmental non-governmental organizations (ENGOs) and representatives of Environment Canada. There was only one participant from the private sector involved with nuclear energy. While some specific problems were discussed, the workshop concentrated on policies and principles. It was agreed the following issues should be explored:

- problems of communication between and within governments, the public and industry
- factors to be taken into account in decision-making
- the role of Environment Canada.

Most discussion concerned problems of communication. Although they recognized efforts by Environment Canada with its public consultation policy, environmental groups requested a greater opportunity to assist in decision-making by government agencies.

One participant stressed the importance of keeping good records of correspondence received from the public. Department representatives explained the functioning of their filing system, noting that all correspondence is answered. They recognized that ENGOs depend on limited resources, and that there is no single bank of information available to them.

They considered a number of scenarios to improve the overall problem of communication. It was agreed that further discussions are required to find solutions.

A department representative said communication problems create perceptions of other difficulties which override the real problems related to nuclear energy. There was disagreement, however, as to what is a perceived problem and what is a real one.

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Toxic chemicals

The largest workshop revolved around the issue of toxic chemicals. It was so well attended that participants divided into two groups: one to concentrate on waste management, the other on pesticide-related issues and risk analysis. Environmental groups and industry were well represented. Although consensus on specific recommendations was not always possible, issues were discussed in an open and spirited forum.

Pesticides

Discussion of pesticides focused on three main issues:

- the lack of public involvement in regulatory decision-making
- perceived shortcomings of the regulatory process
- the need for alternatives to chemical pest control.

Participants felt it was wrong for Agriculture Canada to have sole jurisdiction over the registration of pesticide products. They proposed establishment of an independent commission, to include representation from environmental groups, industry, pesticide users, government and other interested parties. This commission would have the mandate not only to regulate pesticides, but also to promote alternative control strategies.

The development of alternative control strategies, especially biological control, was seen as an important step in reducing use of chemical pesticides. It was felt that Environment Canada could play a more active role in identifying, encouraging and promoting the development of biological control programs.

It was also suggested that the department promote the setting of standards for spray programs and become more active in the monitoring of chemical spray programs, especially in urban areas.

Risk-Benefit Assessment and Toxic Chemical Management

There was considerable discussion on the merits and pitfalls of the concept of risk-benefit analysis. However, there was general agreement that Environment Canada should be encouraged to use risk-benefit in the

decision-making process. Participants said exposure is an important component in risk analysis, and that any risk-benefit assessment must include consideration of all risks and benefits. They acknowledged the importance of "perceived" risks and benefits, as well as scientifically defined ones.

When risk-benefit analysis is used as a decision-making tool, they said, the analysis should be made public and include an explanation of:

- options considered
- reasons why alternatives were rejected -- i.e. risk-benefit analysis of alternatives
- degree of scientific uncertainty attached to the decision.

Current legislation, it was noted, requires all federal departments to involve themselves in environmental impact assessments for any projects to which they provide funds. It was suggested this be expanded to include Crown corporations as well as any joint federal-provincial programs. Environmental impact assessments should be completed before any final agreements are signed.

In the more general discussion of toxic chemical management it was proposed that Environment Canada's approach to chemical management be styled "chemical minimization". The pre-introduction assessment of new chemicals, participants said, should include an analysis of the ultimate need for the chemical.

Waste Management

In workshop discussions on waste management and disposal, it was noted, there was no uniform definition of "waste". Moreover, under present legislation Environment Canada appears to have no jurisdiction over waste disposal. It was felt, however, the department could provide leadership in this area, and should coordinate discussions of waste disposal policies at various levels of government. Governments have inadequate inventories of wastes in various disposal sites, the workshop was told, and often the technology required to monitor and assess disposal sites is lacking. Environment Canada should therefore promote and encourage the development of monitoring and assessment techniques for current sites, while encouraging and actively

researching the development of alternative disposal methods.

It was recognized that the information base on waste management was inadequate. Consequently, development of an adequate data base, and public access to it, were essential in formulating effective waste management policies.

Waste reduction, recycling and re-use were seen to be central to any waste management strategy. The workshop urged Environment Canada to be more active in promoting and funding these initiatives.

Access to Information

A recurring theme was the need for easier public access to information and greater public involvement in decision-making. Participants felt it was extremely important that government, industry and the public resolve the various issues surrounding access to information — proprietary information, for example. They urged that an efficient mechanism be established to ensure effective public access to the information base held by government. Environment Canada could serve as central repository for this data base.

There was general agreement on the need for public education about toxic chemicals. Participants suggested Environment Canada be more active in this area — not only educating users in the safe use of chemicals, but also informing the public about available alternatives which would minimize the use of chemicals.

Other comments about the consultation process centred on the need for adequate lead time to prepare the annual meeting and for satisfactory follow-up. A rural resident appealed to government and non-government organizers to "estimate how long the grassroots people need to participate equally — and then double it, at least."

The meeting organizers were asked to consider mechanisms for enabling environmental groups and industry to get together with department officials between the formal consultation meetings. Participants said some of the issues addressed at the consultation meeting needed further elaboration, while others needed an immediate response. They could not wait another year.

CFS Response

Implementation of many recommendations from the forestry workshop was beyond the powers of the department. Their advocates have been directed to appropriate authorities for action. However, the Canadian Forestry Service reports:

1. Discussions and negotiations are under way with most provinces to develop new Forest Resource Development Agreements in line with the forest renewal policy approved by Cabinet in September 1982.
2. Under the new agreements, development of private woodlots will receive greater emphasis.
3. Consultations are under way with associations to improve public

understanding of the importance of the forestry sector and of forest management practices.

4. CFS communications are being developed to improve public understanding of forest management practices regarding pest and disease control.
5. To provide a strong national voice in forestry matters, four provincial forestry associations will establish a Canadian Federation of Professional Foresters Associations. A Canadian Forest Industry Council, regrouping associations of primary forest products manufacturers, is being organized.

6. A Forestry Relations Branch has been established to intensify liaison with various constituencies that have an interest in the wise use of the forest resource.
7. Cabinet has approved a four-year proposal to increase support to Canada's six forestry faculties and schools, to increase their training and research capability at the post-graduate level.
8. Cabinet has approved funding of the research and development component of the Forest Sector Strategy for 1983-84.

Spraying

To spray or not to spray? This question was considered at length in the forestry workshop, which pondered the relative merits of herbicides, pesticides and other measures to control forest pests.

The workshop was told of an experiment with a brush saw to remove unwanted broad-leafed plants in British Columbia, and similar work in the United States.

Participants debated the economics of spraying or not spraying, as well as health effects. They agreed more data were needed to determine health hazards and other effects of chemical sprays, and the economic feasibility of alternative controls. Collecting such data, they said, would require input from both federal and provincial agencies.

The Canadian Forestry Service (CFS) was urged to increase funds to research alternatives to herbicides and pesticides, examining both economic and biological aspects.

They called for broad representation on the recently proposed Forestry Research Advisory Council, to include representatives of environmental non-government organizations (ENGOS). Environment Canada was asked to take the lead in an interdisciplinary, interinstitutional approach to environmental problems.

Discussion also dealt with the relationship between forestry and tourism, including the impact of spraying programs. Environment Canada was asked to undertake research on the socioeconomic aspects of forestry and the linkages between timber production and recreation.

Participants questioned CFS projections of requirements for professionals and technicians in the forest industry. It took about four years to train competent foresters, but business cycles are bound to affect the short-term demand for graduates. The federal job creation program in the forest sector was seen as an excellent

opportunity to further the department's forest renewal objectives. They were also told of a reforestation experiment in British Columbia involving native people, who proved well suited to the work.

The government was urged to consider expanding job creation programs in forest renewal and intensive forest management, to provide more opportunities for forestry graduates, youth and native people.

The workshop said Canada could make a greater contribution to the world community by exporting both its products and its expertise. It was suggested that forestry schools consider expanding their course content to include international forestry concerns.

Finally, the workshop called for greater attention to Canada's hardwood resources. It urged Environment Canada to give more consideration to the management of our hardwood forests in its forest sector strategy.

Common concerns

Another chapter of the environmental debate was written in Ottawa at Environment Canada's second annual headquarters public consultation meeting. Some 200 people from various organizations, industry, government and other backgrounds worked together for a better understanding of the issues.

Twenty-six participants joined the special workshop to discuss department priorities. The initial list of 22 concerns was reduced to:

- toxic substances:
 - a) waste management
 - b) social usefulness
- water quality management and enhancement
- acid rain
- nuclear weapons
- preservation of agricultural resources
- forestry resources — their conservation, enhancement and preservation
- the north
- climate change and weather modification.

The workshop saw the environment as a global concern. Environmental issues were closely interrelated, and could therefore not be approached in a fragmented way. The group agreed there must be two overriding concerns in any issue. The first was the preservation of the natural environment, within a context of socially responsible use and maintenance of the resource base for a sustainable economy. The second concern was the tools to be used in this approach — risk-benefit assessment and information development.

Participants stressed the need for high-quality information, its two-way transmission, accessibility, education and research.

How is Environment Canada cooperating with other government departments? It was suggested that the Canadian Forestry Service should work with Employment and Immigration Canada to develop labor-intensive programs in forest management, while reducing the use of chemical control.

Cost-benefit analysis, participants said, should include comparative studies on the use of cut-and-squirt methodology and chemical warfare on weeds and insects, combining the proven methods. Non-chemical forest

management, they said, should incorporate field trials and more research into new and alternative methods.

Other recommendations included the transfer of technology from industry and government departments to develop a more environmentally sound alternative for economic stability. The government was perceived as throwing money at forestry problems it doesn't understand — perhaps because of the history of the Canadian Forestry Service as a research-oriented academic institution. Participants called for a re-evaluation of strongly productivist views of forestry that concentrated on short-term profits and balance of payments.

With the successful research already begun, the group concluded that the federal government could end the

current dependence on chemical management of forests, and be a world leader in providing effective management alternatives.

A discussion of toxic chemicals warmed up when the issue of information accessibility was raised. Industry maintained that information is available up to the point when companies may lose their competitive edge to their competitors. Environmentalists contended that even experienced scientific and technically knowledgeable people are prevented from obtaining information which they feel is relevant and important.

The workshop recommended a comprehensive analysis of toxic waste process. This would allow large numbers of people to join in long-term concerted action.

Nuclear *(continued from page 7)*

On the other hand, ENGOs believed that while decision-makers take apparently well-established scientific factors into account, they ignore socio-economic factors and controversial scientific information. It was suggested that decisions are based more on political pressure than on scientific certainties. In reply, department representatives explained the department's position that we can never entirely eliminate risk. The role of Environment Canada, they said, is to define an acceptable level of risk, and try to keep below this by taking scientific information and socio-economic factors into account, and by considering alternative courses of action.

The workshop discussed two alternative roles for the department: should it advocate the complete abandonment of nuclear energy, or should it play the role of evaluator and recommendation-maker? Summarizing the discussions, an ENGO spokesman presented a number of recommendations which the department will study during the coming year:

- Improve dialogue, communication and input between Environment Canada, ENGOs and industry. For

example, establish a central or national clearing house for information concerning the activities, concerns and accomplishments of ENGOs and other such groups.

- Have Environment Canada report to environmental groups on which government agencies are involved in the nuclear industry, and on what their functions are.
- Reissue the report of last year's public consultation workshop on problems related to the nuclear industry, with the department's responses to the recommendations.
- Ask the Minister of the Environment to request that the Minister of Energy, Mines and Resources try to locate the files on the nuclear issue lost during the change of ministers.
- Have Environment Canada do an assessment of environmental and socio-economic impacts, the whole nuclear fuel cycle, and alternative ways of managing the demand for electricity.
- Study how one agency, with the participation of governments, industry and the public, could be established to deal with waste originating from the nuclear industry.

Ecology-economy

What are the promising economic sectors? What are the main environmental concerns? What actions must be taken? These questions were posed to a workshop on sustainable economic development.

Participants in this (French-language) workshop agreed that renewal of natural resources must continue to be the pillars of stable economic development. Forests, traditional and soft energy, oceans, mines and agriculture were seen as some of the most promising economic sectors.

Definition of stable economic development presented a few problems. The participants could not agree on what this meant — a question which probably should have been settled at the outset. The main concern was the integration of environmental protection and economic development. The ecology was seen as a national problem, but the economy as international. Moreover, Environment Canada was often seen as a brake on economic activity rather than a participant in it. It was agreed, however, that the use of resources must also allow for their protection.

Some participants were concerned about reforestation. "Is the future of our forests assured? Is the department's forest strategy effective?" they asked.

Young people were concerned about the exhaustion of resources on a planetary scale. Will we have enough resources to last until the year 2000? Have mechanisms been set up at the international level to safeguard these resources? It was pointed out that women have not been consulted enough, and they have something to say.

Pollution was another major concern. Must we create jobs by building factories which pollute our waterways? Can jobs not be created while we control pollution?

These concerns and questions led to the formulation of a number of recommendations and action plans:

- Environment Canada must concentrate on research and training of qualified staff, both necessary for a judicious use of resources.
- The department must become more assertive in defending the environment — assuming a watchdog role instead of making compromises.
- It must increase public awareness of its role and its interventions especially in remote areas where natural resources are being tapped.
- The department should tighten regulations and establish an effective control system to discourage all polluting activities. Economic penalties could be imposed, and pollution could be made an indictable offense.
- The public should be induced to change its consumption habits, and become more aware of the importance of preserving our resources.

Unions

The environmental movement must forge alliances with labor unions to bring the issue of jobs and the environment to the centre of public debate, an American writer told a national meeting of environmentalists in Ottawa.

Richard Grossman, author of *Energy, Jobs and the Economy and Fear at Work*, all edged that governments do not care much about humanity.

"Peace, survival, health, mountains, national resources — these are fringe issues to them. They turn everything upside down, as if the economy was important but not the people." It is widely believed, said Mr. Grossman, that strict environmental regulations will cost jobs — a belief that often pits workers against environmentalists.

"There's really little basis for that contention," he said. "In fact, pollution control laws protect jobs in tourism, recreation and fishing." However, he added, it is up to environmentalists and labor unions, working together, to get that message across to people.

Jacques Gérin, Deputy Minister of Environment Canada, also stressed the need to work together. The department and the environmental network had evolved together over the last decade, he said — not always agreeing but generally reinforcing each other's goals and objectives.

Herman Boerma, of the Saskatchewan Environmental Society, said discussions between environmentalists and the department are becoming more fruitful. He noted that government and non-government bodies are now addressing the same issues. The annual meeting of the Canadian environmental groups, which preceded the department's headquarters public meeting, adopted "A Sustainable Development Plan for Canada" as a central theme. Workshops on issues such as toxic materials, water management, acid rain and aboriginal rights were held to develop positions for presentation to the Minister of the Environment.

Tourism and parks

What is the role of conservation groups in developing appropriate tourism? In times of restraint how should Parks Canada balance the demand for more services and the need to protect heritage resources? How can conservation groups and the tourism industry help Parks Canada meet the tourism demand? These were questions addressed in the workshop on tourism and parks. Discussion was hampered, though, by the absence of tourist industry representatives.

Use versus preservation was a major topic. Some participants argued that nature conservation and tourism do not mix, and that development of tourism in national parks is therefore undesirable. Because heritage

conservation is the major role of Parks Canada, some insisted that tourism should be controlled. But others maintained that Parks Canada has an important part to play in tourism.

There was some discussion as to whether Parks Canada could ever fulfill, to the satisfaction of all, its dual mandate to preserve the parks and encourage people to enjoy them. A two-tier system was suggested, with distinct areas set aside for tourism and other areas for preservation only. If Parks Canada has a major responsibility to attract more visitors, one participant said we may have to give up on national parks as a means of conservation.

Parks Canada, conservation organizations and the tourism industry were urged to work together to identify the sector of the tourist market served by the parks, to ascertain what these people's needs are and what activities are appropriate in the parks.

The workshop proposed several ways to deal with the conflict between use and preservation. These included encouraging public support for conservation through education, politicizing lobby groups that support Parks Canada's activities, and applying environmental evaluation procedures to tourism in the parks. Participants said the growing demand for wilderness activities was increasing the number of people who explored the backcountry, and this was threatening its wilderness character. There was also concern that the growing interest in winter use would deprive national parks of a rest period.

To cope with financial constraints, it was suggested the tourism industry should be paying more of the cost of maintaining parks. Parks Canada was urged to increase revenues from users, encourage foreign tourists, charge companies more for using park resources, and take advantage of job creation programs to build or improve facilities.

Participants felt that marketing for national parks should stress selective and appropriate use, with emphasis on promoting the social value of nature conservation. Parks Canada should use radio, television and major newspapers to get this message to Canadians.

Some felt that environmental groups could not trust Parks Canada to defend the parks from tourism conflict. Its credibility is undermined they said when they do not see Parks Canada and the minister holding the line on tourism.

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World conservation strategy

The World Conservation Strategy was prepared by the International Union for Conservation of Nature and Natural Resources, an organization made up of more than 700 scientists and 450 governments. It is considered to be the most authoritative conservation organization in the world.

Among the most important elements of the new environmental order it calls for is the conservation of living resources for sustained development. The strategy lists three specific objectives of living resource conservation:

1. to maintain essential ecological processes and life support systems.

These include the protection and regeneration of soils, the recycling of nutrients and the cleansing of waters.

2. to preserve genetic diversity. The total pool of genetic material in the world's plants and animals must be protected and preserved. Upon this activity depend breeding programs necessary to improve wild and domestic life forms.
3. to ensure the sustainable utilization of species and ecosystems, including wildlife and their habitats, forests and forest soils, fisheries and water, crops and farm lands.

Agriculture

Serious problems for Canadian agriculture were forecast by one workshop on sustainable economic development. Participants doubted that present farming technology could be sustained through this decade, because of the degradation of soil and water quality.

This was blamed not only on "imported" pollution, but on current farming practices which pay little attention to soil conservation or prevention of fertilizer runoff into water sources. Before these problems can be effectively tackled, they concluded, there must be centralized documentation of their extent and severity.

Competing land uses also threaten environmental quality, participants said. This was illustrated by the draining of wetlands for agricultural purposes. At the same time, the withdrawal of land from agricultural use was seen as a serious threat to productivity, exacerbated by pressures from urban development and other resource needs.

An additional threat, they said, was the mounting pressure to export Canadian water.

Participants called for a national consensus on water issues, and a consistent approach to preventive and remedial policies and programs.

The workshop reaffirmed the need to move from a consumer society to a conserver society. Participants insisted that this did not have to mean an end to growth. Rather, they said, conservation permits reinvestment of a country's resources to provide growth. There was concern about the economic and social dislocation caused by new technologies, including unemployment and migration of a large part of the work force to centres of intensive development. Developers were urged to assume broader responsibility for the social and environmental impacts of their undertakings.

Canadian Wildlife Service

The Canadian Wildlife Service of Environment Canada handles wildlife matters that are the responsibility of the federal government.

These responsibilities include protection and management of migratory birds as well as nationally significant wildlife habitat. Other responsibilities are the protection and

preservation of endangered species, control of international trade in these, research on wildlife issues of national importance, and interpretation of wildlife to the general public. The service cooperates with the provinces, territories, Parks Canada and other federal agencies in wildlife research and management.

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Wildlife

Plants and animals are indispensable to mankind. They pollinate our crops, provide us with life-saving drugs, give us an insight into our own nature and offer the spiritual refreshment of just being there.

Not the least of these benefits are the economic ones. Hundreds of millions of dollars are spent each year on licences, guns, photography, ammunition, fishing tackle and boats. Wildlife-related tourism is a booming business in Canada, accounting for an important part of our foreign exchange earnings. Fur trapping brings in about \$25 million a year for 40 000 Canadians. More directly, caribou, deer, seal, ducks, geese and many other forms of wildlife are important in the diets and lifestyles of native Canadians. Hunting is a cherished activity for about 11 million Canadians. Millions of Canadians have become interested in bird-watching.

Like the canaries once used to detect lethal gas in coal mines, wild

plants and animals are among our most sensitive detectors of environmental stress. The discovery of dioxins in herring gull eggs and of mercury in the tissues of fish are only two of many examples.

Pollution is one of the major threats to wildlife. And it frequently has a chain effect. When fish species die out due to acid rain, the fact affects the birds and animals that feed on the fry, and in turn the wildlife which preys on them. Another threat is overhunting, especially of migratory birds and trophy animals. One of the most difficult conservation issues in Canada today is the overhunting of caribou herds, which have been reduced to remnants of their former numbers.

However, the greatest danger to wildlife is simply loss of habitat due to the encroachment of human activity. This is a serious problem throughout the country as we cut down forest, extend the agricultural frontier, and carve highways through the wilderness.

Water

Environment Canada should concentrate on problems with our water resources during the 1980s, participants in Priorities Workshop V agreed. Their discussions also brought out the gravity of the threat from toxic chemicals.

A consensus on the importance of water-related subjects was quickly established. This may reflect the acuteness of water problems in Quebec, from where all the non-government workshop participants came.

A prime concern was deterioration of water quality. They saw an urgent need to set up purification mechanisms, control effluents and discharges, to promote applied research into purification techniques, to establish shore-protection and to pass legislation to control water quality. They also called for more technical exchanges and efforts to increase public awareness of water problems.

The groups said federal and provincial governments should become thoroughly involved in these activities.

Meanwhile the polluters, the municipalities, citizens' associations and individuals must also do their part to find the necessary solutions.

The relative abundance of waste in Canada, the workshop said, inevitably has resulted in the habit of using it improperly. To correct this the participants called for efforts to teach the public the need for moderation. The federal and provincial governments must also coordinate their actions, the workshop said, and adopt sensible and realistic overall policies. If necessary, they should not hesitate to establish changes for the use of water. Recycling of water and the search for alternatives should also be encouraged.

Toxic chemicals, the group's other broad area of concern, included industrial, agriculture and urban waste, as well as acid rain and nuclear waste. The workshop gave special attention to the massive and often abusive use of toxic chemicals, their transport, methods of disposal, inadequate identification and lack of sufficiently strict standards for use.

The most pressing needs seen by participants, were to increase public awareness of the dangers of toxic chemicals, to research alternative products, to study safer means of disposal and safe, efficient transportation. In this area, they noted, the health of Canadians is particularly vulnerable. They said governments should be especially vigilant and use all legislative means to establish and ensure compliance with strict standards.

Other subjects included protection of land, especially farmland and forest, and biological alternatives to toxic chemicals. The workshop urged that information be provided on the use of insecticides to protect crops and forests.

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Inland Waters Directorate

The Inland Waters Directorate is the focus of water research in Canada, a collector of data and a repository of information on the resource.

Attached to it are the National Hydrology Research Institute in Ottawa and the National Water Research Institute in Burlington, Ontario.

Among other things, the directorate:

- administers a national flood damage reduction program that discourages new development in flood-prone areas
- maintains water quality data from 4000 locations throughout Canada
- operates 2700 hydrometric gauging stations that measure streamflow and water level
- studies the occurrence, movement and effects of toxic chemicals in waters and sediments, along with research into a wide range of water-related topics
- participates in the formulation of river basin plans that are used to allocate water resources.

Water export

The workshop on water issues drew many participants from Environment Canada. Unfortunately, though, there was little representation from industries, developers or native groups. Many participants representing environmental groups expressed concern over the possible export of water and its transfer from one basin to another. There were also questions — as there were last year — about the environment impacts of large-scale projects. A case in point was the proposed Slave River hydroelectric development.

Closely related to these issues were concerns about native rights, and the adequacy of environmental protection under Canada's present laws and constitution.

These recommendations went to the plenary session:

- The Canadian government should be very conscious of possible pressures and demands for water export. It was recommended that the federal government develop a policy to address this matter and that federal-provincial discussions be undertaken on this issue.
- There should be more public input through planning and consultation regarding large-scale water projects.
- There needs to be a strategy for collecting baseline data on our water resources so that we can better forecast our supplies and future needs.
- Governments should discuss and resolve the jurisdictional aspect of interbasin water transfer.
- The Canada Mortgage and Housing Corporation (CMHC) program to fund construction of waste treatment plants should be reinstated in regions where these projects are not well advanced — for example, in Quebec and the Maritimes.
- Environment Canada should orient its policies toward reduction of water pollutants.
- There should be a public inquiry on the adoption of a water strategy for Canada, with a funding program to assist participants.
- Canada's constitution should specifically mention environmental quality, to give greater importance to environmental matters and greater protection of the environment.
- There should be a federal environmental ombudsman to assure greater public access to information and decision-making, particularly in jurisdictional disputes relating to water.
- Aboriginal water rights should be discussed at a future consultation meeting involving native people.
- Environment Canada should better define how sustainable development relates to environmental concerns.
- Environment Canada should continue its practice of providing a brief update on its main activities at future meetings.
- There should be serious efforts to increase public awareness of water-related issues.
- Better water conservation practices by the public should be encouraged, as well as those by industry in developing new technology. There should also be a concerted effort to follow the soft energy path in for water conservation.

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Watersheds

The World Conservation Strategy places special emphasis on the need to protect watersheds, or river basins, particularly the upper catchment areas.

These areas are important for a number of reasons, but principally because the misuse or degradation of water there affects all downstream uses of the resource.

Canada has several large river basins. For instance, one-fifth of our

land drains into the Mackenzie River — a watershed covering almost 1.8 million square kilometres, draining water from three provinces and the two territories.

A major threat to watersheds is pollution, industrial and municipal, which affects fisheries, agriculture, forestry, wildlife and downstream human use of the stream for recreation and drinking water.

Sustainable Development

Planning is the key to a sustainable future for the Canadian economy. This was the major conclusion reached at a day-long workshop on sustainable economic development in the 1980s. Twenty representatives of business, industry, the academic community and environmental groups discussed a number of areas offering the best potential for development.

Participants emphasized that the national planning process must include more public participation if it is to succeed in fostering sustainable development and full employment.

Environment Canada's role in

economic planning must be considerably strengthened to make this recommendation a reality.

Recommendations for sustainable development focused on renewable natural resources. Successful future use was predicated on integrated long-term management to minimize adverse environmental and social effects, and on job creation through small-scale labor-intensive projects.

Participants saw the lack of a conservation strategy, both here and abroad, as a major stumbling block to sustainable economic growth. Some suggested our present economic and

political systems are not suited to sustainable development, by definition a medium and longterm proposition. A redefinition of our economic indicators is needed to better reflect the present and future state of the economy.

Other problems and concerns included acid rain, toxic wastes and dump sites, megaprojects, worker health and safety, forest management and environmental education, among others. The participants regretted there was only limited time for such a large group to come to grips with the present problems, and to prescribe solutions to guide the economy through the 1980s.

Missing Link *(continued from page 4)*

Although she was pleased that Environment Canada is responding to participants' recommendations, she asked the department to make the workshops more "specific than esoteric".

"Thank you very much for putting these (guidelines for wildlife policy in Canada) together, but don't take a deep breath and think it's all over —

because now you have to discuss ways of putting them into place."

Other comments about the consultation process centred on the need for adequate lead-time to prepare for the annual meeting and for satisfactory follow-up.

The meeting organizers were asked to consider mechanisms to enable environmental groups and industry to

get together with department officials between the formal consultation meetings. Participants said some of the issues addressed at the consultation meeting needed further elaboration, while others needed an immediate response which could not wait another year.

Consultation Activities/Activités de consultation

Dates and locations for the 1983 meetings have been established as follows:

Voici les dates et les lieux des réunions qui auront lieu en 1983:

WINNIPEG:	Sunday, October 16, at 1:30 p.m. Fort Garry Hotel	WINNIPEG:	Dimanche, 16 octobre à 13h30 au Fort Garry Hotel
REGINA:	Sunday, October 23, at 1:30 p.m. Sheraton Centre	RÉGINA:	Dimanche, 23 octobre à 13h30 au Sheraton Centre
EDMONTON:	Sunday, October 30, at 1:30 p.m. Northern Forest Research Centre	EDMONTON:	Dimanche, 30 octobre à 13h30 au Centre de recherches forestières du Nord
YELLOWKNIFE:	Sunday, November 6, at 3:00 p.m. Northern United Place	YELLOWKNIFE:	Dimanche, 6 novembre à 15h00 à la Northern United Place

