

REGISTER OF PANEL PROJECTS
SUBMITTED UNDER THE
FEDERAL ENVIRONMENTAL ASSESSMENT AND REVIEW PROCESS

OFFICE OF THE EXECUTIVE CHAIRMAN
FEDERAL ENVIRONMENTAL ASSESSMENT REVIEW OFFICE
FISHERIES AND ENVIRONMENT CANADA
OTTAWA, ONTARIO
JULY 1977

@Minister of Supply and Services Canada 1977
Cat. No.: EN103-5/1977
ISBN 0-662-00824-3

Copies available from:

Information Services Directorate
Fisheries and Environment Canada
Ottawa K1A 0H3
Canada

NUMBER 1

INTRODUCTION

The Register's purpose is to provide public and private agencies, interest groups, and members of the general public with current information on Panel projects and related items.

It is our intention to publish the Register quarterly. Once a year, it will contain the complete data for each project, as in the present issue. The other volumes will contain only new or additional information available at the time of printing.

The contents are arranged as follows:

1. Information on Panel Projects

(that is, those projects submitted for a formal, in-depth environmental assessment and review for which guidelines are issued for the preparation of an environmental impact statement and the statement is produced by the proponent or initiator or their consultants for review by a Panel.)

This section is subdivided as follows:

- project title
- project location
- identification of proponent and/or initiator
- project description
- possible environmental impacts
- present status under the Environmental Assessment and Review Process
- future Panel events

2. General Information on the Environmental Assessment and Review Process

This section provides information on administration of the EAR Process, staff of the Federal Environmental Assessment Review Office, and contacts for general information.

I trust that the Register will provide enough data for all interested persons, agencies and groups to become informed of the Panel component of the federal Environmental Assessment and Review Process, to enable them to adequately participate in the review of these projects.



F. G. Hurtubise
Executive Chairman
Federal Environmental Assessment
Review Office

CONTENTS

INTRODUCTION -----	(i)
PANEL PROJECTS	
Labrador-Newfoundland Electric Power Transmission Line 81 Tunnel ---	1
Gull Island Hydro Electric Generation Project -----	3
Wreck Cove Hydro Electric Power Project -----	5
Bay of Fundy Tidal Power Generation Project -----	7
Solid Waste Energy Conversion Plant -----	8
Hamilton Airport Project -----	10
Eldorado Nuclear Ltd. - Expansion of Uranium Refinery Capacity ----	12
Polar Gas Project -----	14
CN Telecommunications Systems - Wood Buffalo National Park -----	16
Mackenzie Delta Gas Gathering System -----	17
Mackenzie River Dredging Program -----	19
Yukon Railway Study -----	21
Shakwak Project (Haines Road/Alaska Highway) -----	22
Alaska Highway Gas Pipeline Project -----	24
Expansion of Air Traffic Capacity of Vancouver International Airport -----	26
Fraser River Training Works Program -----	28
Roberts Bank Bulk Loading Facility Expansion -----	30
Reactivation of Boundary Bay Aerodrome -----	32
GENERAL INFORMATION ON THE FEDERAL ENVIRONMENTAL ASSESSMENT AND REVIEW PROCESS -----	
	34

LABRADOR/NEWFOUNDLAND ELECTRIC POWER TRANSMISSION LINE & TUNNEL

Location

Lower Churchill River (Labrador), Strait of Belle Isle and Island of Newfoundland

Proponent

Newfoundland and Labrador Hydro

Initiator

Federal Department of Energy, Mines and Resources

Description

Construction of two 400 kv. transmission lines to supply power from the Churchill Falls site in Labrador via a tunnel under the Strait of Belle Isle to St. John's on the Island of Newfoundland. The proposed start of construction is unknown at present. The estimated cost is \$700 million (1976 dollars).

Possible Environmental Impacts

1. The transmission line will impact on moose, caribou and arctic hare populations.
2. The line will impact on areas of wilderness quality.
3. The construction of the line is potentially dangerous to certain fish species such as Atlantic salmon, brook trout, i.e. in the crossing of some 15 river systems significant for the production of these fish species.
4. Construction of the proposed Belle Isle Strait tunnel could have an effect on both fish and marine animals, i.e. blasting could disrupt migration patterns of cod, Atlantic salmon and harp seal.
5. Construction of the line could affect sensitive land types such as organic areas and unstable river crossings.

Present Status Under EARP

This project was under consideration before the federal Environmental Assessment and Review Process became operational. In December 1974, a preliminary environmental impact statement was produced under a federal-provincial cost-shared agreement. This agreement made provision for a Panel review. Consequently, a Panel was formed January 1975. Panel members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Fisheries & Environment Canada
Hull, P. Q.)

W. J. Carroll
(Director, Newfoundland Forest
Research Centre
Fisheries & Environment Canada
St. John's, Nfld.)

A. W. May
(Director General
Resource Services Directorate
Fisheries & Environment Canada
Ottawa, Ontario)

R. J. McCormack
(Director General
Lands Directorate
Fisheries & Environment Canada
Ottawa, Ontario)

E. M. Warnes
(Chief, Generation and Transmission
Energy, Mines & Resources Canada
Ottawa, Ontario)

As an Environmental Impact Statement was in existence, the Panel did not produce guidelines but issued a deficiency statement, which will be the focus for the completion of an Environmental Impact Statement in accordance with Panel procedure.

Future Panel Events

It is anticipated that the Environmental Impact Statement will be completed this summer, following the resolution of relocation questions in Labrador and on the Northern Peninsula of Newfoundland. Upon receipt of the Impact Statement, the Panel will commence its review. The format for the public review program is presently in preparation.

GULL ISLAND HYDRO ELECTRIC GENERATION PROJECT

Location

Gull Island site on the Lower Churchill River, 140 miles downstream from the Churchill Falls Power Development, Labrador.

Proponent

Newfoundland and Labrador Hydro

Initiator

Federal Department of Energy, Mines and Resources

Description

The project will consist of a dam across the Churchill River, an artificial lake with an area of 77 square miles with a maximum depth of 300 feet near the dam, intakes and penstocks, a powerhouse with six 300 MW generating units and a construction camp for 150 families. 1600 MW of Gull Island Power will be passed via a high tension DC transmission facility (Newfoundland/Labrador Electric power transmission line and tunnel) to the 320 KV AC insular Newfoundland grid. The project will also provide an extra high tension AC **intertie** with the Churchill Falls power development on the Upper Churchill River. The total capital cost (hydro facilities only) is estimated at \$500 million (1974 \$). The proposed start of construction is not known at present.

Possible Environmental Impacts

1. The dam will create a reservoir which will impact on wildlife, fish and other resources.
2. The construction camps and borrow areas will impact on areas of wilderness quality and on the wildlife and aquatic resources.
3. Construction activities, including reservoir preparation, will have short-term and long-term effects on fish rearing areas and fish habitat.

Present Status Under EARP

The project was under consideration before the federal Environmental Assessment and Review Process became operational. The project was the subject of a preliminary environmental overview study in 1974. In 1977, it was agreed that a Panel be formed for the Gull Island Hydro Project and that a different Panel be appointed for the Newfoundland/Labrador Transmission Line. The Gull Island Environmental Assessment Panel members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

E. M. Warnes
(Chief, Generation and Transmission
Energy, Mines & Resources Canada
Ottawa, Ontario)

J.H.C. Pippy
(Fisheries Biological Station
Fisheries and Environment Canada
St. John's, Nfld.)

E.J. Norrena
(District Manager
Environmental Protection Service
Fisheries & Environment Canada
St. John's, Nfld.)

F. C. Pollett
(Newfoundland Forest Research Center
Environmental Management Service
Fisheries and Environment Canada
St. John's, Nfld.)

Guidelines for the environmental impact statement are in the process of being approved. Environmental studies are scheduled for 1977.

Future Panel Events

On completion of the environmental impact statement a review will be undertaken by the Panel. This will include a review by the public. Public meetings will be arranged to obtain briefs and comments from that sector.

WRECK COVE HYDRO ELECTRIC POWER PROJECT

Location

Northern Cape Breton Island, Nova Scotia

Proponent

Nova Scotia Power Corporation

Description

Hydroelectric power generating project to produce 200 mw of peaking power for the provincial system, involving the proposed diversion of the head waters of seven rivers to the generating station at Wreck Cove on the east coast of the Island. The project area is located on the southern boundary of Cape Breton Highlands National Park. It is proposed to use part of the former Park lands in the Cheticamp area, which are now federal crown lands. Although parts of the project are already under construction, construction of the Cheticamp section, where the major federal interest lies, is projected to start in 1977. The estimated total project cost (1976 \$) is \$130 million.

Possible Environmental Impacts

1. Effects of changes and reduction in water flow of the Cheticamp River on the continued viability of its Atlantic salmon population.
2. General environmental acceptability of the Cheticamp portion of the project.
3. Effect of diversion and related water course changes on the trout populations in the Cheticamp system, Wreck Cove and Gisborne natural lake systems and Indian, McLeod, Wreck Cove and Ingonish natural river systems. Effect of reduced and impounded flow on the salmon, trout and smelt population in the lower mile of Indian Brook.
4. Short and long term effect of erosion and siltation, due to construction activities, on fish rearing areas and spawning beds in all water courses.
5. Impact of disturbance due to project activities on the areas ungulate (especially moose) populations and habitat.
6. Possible effect on birds and mammals of limited provincial and/or national distribution, eg. bald eagle, pine martin.
7. Reduction of natural values and qualities of the project area.

Present Status Under EARP

As a result of an agreement between the federal and provincial Environment Ministers, the project became a Panel candidate in March 1975. Given that the construction of the project had been approved by the Nova Scotia Government subject to a phased environmental assessment, the agreement specified that the focus of the EIS was to be on a phased study related to the project's proposed construction phases. The EIS study was to concentrate primarily on consideration of alternatives for the Cheticamp area and their environmental impacts, in addition to an overall assessment of the project stages already well advanced, where the emphasis would be on the design of adequate mitigation measures.

The Panel was formed in June 1975 and the members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

J. Dalziel
(Manager
Operations Branch, Environmental
Protection Service
Fisheries and Environment Canada
Halifax, N. S.)

V. C. Dohaney
(Regional Director, Atlantic Region
Inland Waters Directorate
Fisheries and Environment Canada
Halifax, N. S.)

D. Harper
Assistant Director, Programming
& Development Branch, Parks Canada
Dept. of Indian & Northern Affairs
Halifax, N. S.)

N. MacEachern
(Chief, Invertebrate and Plant Division
Fisheries and Marine Service
Fisheries and Environment Canada
Halifax, N. S.)

The Environmental Impact Statement guidelines produced by a federal-provincial Task Force were approved and issued by the Panel to Nova Scotia Power Corporation, September 1975. An interim statement was received by the Panel in May 1976. A public meeting to review the statement and for presentation of briefs was held at **Baddeck**, Cape Breton Island, in July 1976. This was co-chaired by the federal Panel and the provincial Department of the Environment. Minutes and answers to questions raised by the public at the **Baddeck** meeting have been made publicly available by the Nova Scotia Department of the Environment. The final impact statement was distributed in May, 1977. After review by the public and the Panel in May-June, 1977, the Panel reported to the federal Minister of Fisheries and the Environment in July, 1977.

Future Panel Events

Information on decisions taken by the federal Minister of Fisheries and the Environment on the basis of Panel recommendations will be made available to the public.

BAY OF FUNDY TIDAL POWER GENERATION PROJECT

Location

Chignecto Bay and Minas Basin sites, upper Bay of Fundy, New Brunswick/
Nova Scotia.

Proponent

Bay of Fundy Tidal Power Review Board

Description

The project is at the feasibility planning stage (stage II of Phase I of the Board's program). At this stage, there are alternatives under study which propose the construction and operation of dams, generating plants and transmission lines at three locations in the Upper Bay of Fundy. The proposed construction costs and start of construction dates are not known at present.

Possible Environmental Impacts

The specific likely areas of impact are not yet known. Some general areas include:

1. Limitations or restrictions on resource use by man.
2. Impacts on ecosystem stability in terrestrial and marine environments.
3. Large borrow pit, quarrying and hauling operations.

Present Status Under EARP

The project was referred for Panel review in April 1977. The Panel is currently in the process of being formed. A working group from federal and provincial government agencies has commenced production of the guidelines for the preparation of the environmental impact statement.

Future Panel Events

A public information and participation program to enable the public to be informed of and become involved in the environmental impact assessment is currently in preparation. This will include public discussion of the impact statement guidelines as well as public review of the impact statement.

SOLID WASTE ENERGY CONVERSION PLANT

Location

National Capital Region, Ontario-Quebec

Initiators

Federal Department of Public Works and the National Capital Commission.

Description

The project currently proposed is an energy conversion plant which would utilize solid waste from the National Capital Region as part of its fuel requirements, producing steam to supply heating and cooling services for existing and proposed federal government buildings in downtown Ottawa-Hull. A number of possible systems are currently being evaluated. The project was originally conceived as a combined incinerator and heating plant by the National Capital Commission, not connected with any other system.

Possible Environmental Impacts

1. Effect of plant emissions and odours on adjacent areas including residential.
2. Visual impact on the surrounding area.
3. Increase in traffic flow, noise and density due to increase in fuel delivery shipments.
4. Impact on adjacent existing or proposed land uses or zoning.
5. Effect of plant noise and vibration on adjacent areas.

Present Status Under EARP

The original NCC project submitted in 1974 to the Environmental Assessment and Review Process had reached the finalization of impact statement guidelines stage prior to its incorporation into the above project. Due to a change in the nature of the project, the Panel for the original project was dissolved and a new one formed in May 1976.

The new panel members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

G. Lamoureux
(Chief, Federal Activities
Environmental Protection Service
Fisheries and Environment Canada
Montreal, P. Q.)

K. C. Stanley
(Director, Environmental Design
Department of Public Works
Ottawa, Ontario)

K. Shikaze
(Chief, Environmental Control Division
Environmental Protection Service
Fisheries and Environment Canada
Toronto, Ontario)

E. G. Daly
(Director, Solid Waste Management
National Capital Commission
Ottawa, Ontario)

The new Panel is presently preparing EIS guidelines on the basis of those issued for the former project.

Future Panel Events

Upon completion of NCC/DPW's preliminary site selection study, forecast for 1977, the Panel will finalize guidelines for the preparation of an environmental impact statement. These will be made available to the public. Upon presentation of the EIS (projected date as yet unknown) public meeting(s) will be held to enable the public to review and comment on the proposal.

HAMILTON AIRPORT PROJECT

Location

Hamilton (Mount Hope), Ontario and five alternate sites south and southwest of the city of Hamilton.

Initiator

Federal Department of Transport (Canadian Air Transportation Administration).

Description

The selection, from among several options, of an airport for the future development of air transportation facilities and services for the Hamilton area. Options include retention and expansion of the existing airport, and the development of a new airport at one of several new sites. Projected cost and development schedule details are dependent upon the alternative selected.

Possible Environmental Impacts

The environmental effects will vary according to the site being considered. Some of the possible environmental effects determined from initial studies conducted are:

1. Loss of agricultural land (all alternative sites except the existing Hamilton (Mt. Hope) site).
2. Increased runoff to feeder streams causing increased susceptibility to erosion, reduced rates of ground water recharge and stream siltation.
3. Increased ground traffic and its associated noise.
4. For all sites a certain segment of the population would be affected by aircraft noise.
5. Stream siltation and effects on fish spawning due to construction activity.

Present Status Under EARP

The project was officially referred for Panel review, July 1976. The Panel was formed October 1976. Panel members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

R. T. Moffatt
(A/General Manager
Toronto Area Airports Projects
Transport Canada
Toronto, Ontario)

R. C. Ellis
(Director, Ontario Region
Environmental Management Service
Fisheries and Environment Canada
Burlington, Ontario)

K. Shikaze
Chief, Environmental Control Division
Environmental Protection Service
Fisheries and Environment Canada
Toronto, Ontario)

Future Panel Events

The Panel's first actions will be: to define the scope of the project for the purposes of the preparation and review of the impact statement, finalize guidelines for issue to the initiator for preparation of the impact statement, and to determine the nature of the public information and participation program for the project. The guidelines will be made available to the public.

ELDORADO NUCLEAR LIMITED - EXPANSION OF URANIUM REFINING CAPACITY

Location

The potential sites for the proposed refineries are in the provinces of Ontario and Saskatchewan (one refinery per province). The decision to proceed and the exact locations will depend upon environmental and other approvals, engineering and market feasibility studies.

Initiator

Eldorado Nuclear Ltd.

Description

- a) Ontario: the proposed project is to construct a uranium refinery with a capacity of 9,000 metric tons natural uranium in the form of uranium hexafluoride (UF₆). The refinery will process ore concentrates (yellow-cake) primarily from mines located in Ontario to produce uranium hexafluoride for United States and overseas market. Uranium hexafluoride is the feedstock for uranium enrichment plants which do not currently exist in Canada since the Candu reactor does not require enriched uranium.
- b) Saskatchewan: the proposed refinery would process yellow cake primarily from Saskatchewan mines to produce: 5,000 tons of uranium oxide by 1981; 5,000 tons of uranium hexafluoride by 1985; and 10,000 tons of the latter by 1990. The only other difference between (a) and (b) is that the uranium oxide produced in (b) would be used for conversion to uranium hexafluoride at the Port Hope refinery.

The total estimated cost of both refineries is \$100 million (1975 \$) and the projected production start-up date is 1980-81.

Possible Environmental Impacts

Although the actual impacts will not be known until the environmental studies are completed, possible impacts include:

- 1. On site spills of chemical residues and low-level radioactive waste impurities. Effect of these on ground and surface water quality in general, and on the plant and animal species dependent on these waters.
- 2. Effect of gaseous emissions on plant species.
- 3. Effect of cooling water effluent on water bodies and water quality, ie. possible increase in algal blooms and changes in aquatic ecology.
- 4. Loss of terrestrial habitat due to construction and right-of-way service facilities.
- 5. Alienation of agricultural land by plant and related facilities.

Present Status Under EARP

The request for a panel was received in July 1975, and the Panel was established in September of the same year. Members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Hull, P. Q.)

M. Duncan
(Atomic Energy Control Board
Ottawa, Ontario)

P. M. Bird
(Director-General, Liaison &
Coordination Directorate
Planning and Finance Service
Fisheries and Environment Canada
Hull, P. Q.)

D. P. Scott
(Freshwater Institute
Fisheries and Marine Service
Fisheries and Environment Canada
Winnipeg, Manitoba)

C. Cheng
(Canada Centre for Inland Waters
Fisheries and Environment Canada
Burlington, Ontario)

K. Shikaze
(Chief, Environmental Control Division
Environmental Protection Service
Fisheries and Environment Canada
Toronto, Ontario)

Mr. R. S. Lang
(Associate Professor, York University
Faculty of Environmental Studies
Downsview, Ontario)

Ms. Ellen Derow
(Instructor, McMaster University
Department of Sociology
Hamilton, Ontario)

A federal-provincial working group was formed by the Panel in September 1975 to produce draft guidelines for the preparation of the impact statement. The finalized guidelines were issued by the Panel to the proponent in June 1976, and these are available to the public. For the Ontario site, detailed environmental impact studies have been carried out on the preferred site located at Port Granby. Site selection studies had previously been carried out and involved consideration of 15 potential sites. For the Saskatchewan site, after study of 14 potential locations, Warman, near Saskatoon has been selected for detailed environmental assessment.

Future Panel Events

With regard to the Ontario site, it is anticipated that the Environmental Impact Statement will be submitted to the Panel in the near future. Consequently, a program for public participation in the review of the impact statement and supporting documentation is currently in preparation. It is anticipated that three to six months will be required for a comprehensive technical and public review.

The environmental studies for the Saskatchewan site commenced this spring. It is expected that the impact statement will be submitted to the Panel in the first half of 1978.

POLAR GAS PROJECT

Location

High Arctic Islands via Northwest Territories to markets in southern Canada.

Proponents

Polar gas Consortium and Panarctic Gas Ltd.

Co-Initiators

Department of Indian and Northern Affairs (for Northwest Territories portion).
Department of Energy, Mines and Resources (for area south of 60th parallel).

Description

Extraction and purification of gas from fields in the High Arctic, and construction of a large diameter pipeline for natural gas transmission through the Northwest Territories and one or more provinces to a junction with an existing pipeline in southern Canada. The projected total cost for the pipeline component, south from **Spence** Bay ranges from \$4.5 billion to \$6.2 billion, the variation being a function of the route taken. The proposed start of pipeline construction is 1979-80.

Possible Environmental Impacts

Specific impacts not known prior to basic EIS studies. General impact could be similar to related Arctic pipeline projects in Canada and the U.S.

Present Status Under EARP

Official request for Panel received November 1975. Federal government Task Force set up February 1975 to produce draft EIS guidelines for Panel. Panel formed March 1976. Members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Hull, P. Q.)

G. H. Lawler
(Regional Board Chairman
Northwest Region
Fisheries and Marine Service
Fisheries and Environment Canada
Winnipeg, Manitoba)

R. G. Skinner
(Department of Energy, Mines
and Resources
Ottawa, Ontario)

A. H. Macpherson
(Regional Director-General
Environmental Management Service
Northwest Region
Fisheries and Environment Canada
Edmonton, Alberta)

E. Cotterill
(Assistant Deputy Minister
Northern Affairs
Dept. of Indian and Northern Affairs
Ottawa, Ontario)

A. R. Milne
(Ocean and Aquatic Services
Pacific Region
Fisheries and Environment Canada
Victoria, B. C.)

The provinces of Manitoba and Ontario have been actively involved in contributing to the guidelines, and have also been invited to sit as Panel members. The guidelines for the preparation of an environmental impact statement are presently being finalized by the Panel for issue to the initiators and proponents.

Future Panel Events

The finalization of the guidelines for the impact statement is expected in the near future. These will be available to the public for their use and information. The impact statement is to be prepared by the proponents and the initiator in concert. The projected date of submission of the statement to the Panel is not known at present. A public participation and information program is currently being designed to ensure public involvement in the review of the impact statement.

CN TELECOMMUNICATIONS SYSTEM - WOOD BUFFALO NATIONAL PARK

Location

Northern section of Wood Buffalo National Park, Alberta and Northwest Territories.

Proponent

Canadian National Telecommunications

Initiator

Parks Canada, Department of Indian and Northern Affairs

Description

The proposed system consists of the construction of two 500 foot microwave towers and support systems in the northern section of Wood Buffalo National Park. The purpose of this system is to improve communications between Hay River (NWT), Fort Smith (NWT), and Fort Chipewyan (Alberta). The estimated cost is \$0.75 to \$1.25 million and the start of construction is proposed for 1978.

Possible Environmental Impacts

1. Disruption of the breeding grounds of the Whooping Crane.
2. Obstruction and interference to Whooping Cranes moving around their breeding grounds, and to the cranes migration routes.
3. Landscape aesthetics of the National Park.

Present Status Under EARP

The project was referred for Panel review in April, 1977. The Panel is currently in the process of being formed.

Future Panel Events

The Panel's first tasks will be to prepare and issue guidelines for the preparation of an environmental impact statement to the initiator and determine the nature of the public information and participation program. The impact statement guidelines will be made available to the public.

MACKENZIE DELTA GAS GATHERING SYSTEM

Location

Mackenzie River Delta Region, Northwest Territories

Proponents

Imperial Oil, Gulf Oil and Shell Oil

Initiator

Department of Indian and Northern Affairs

Description

Construction and operation of gas processing plants and transportation facilities by the above oil companies to supply a pipeline moving gas south to market in southern Canada. The proposed start of construction varies as there are three separate plant facilities proposed, and schedules for construction have not been confirmed. The estimated cost of the Taglu development (Imperial Oil) is \$500 million (1975 \$).

Possible Environmental Impacts

1. Removal and/or disturbance of vegetation during construction resulting in permafrost degradation and/or soil erosion.
2. Temporary disturbance or displacement of wildlife and harassment causing seasonal or permanent abandonment of habitats.
3. Reduction of productivity caused by disturbing nesting populations in adjacent migrating bird sanctuaries and at other nesting sites.
4. Permafrost degradation under and around pads and dykes used for site developments - thaw settlement could be extensive on ice rich soils and dyke failure could release toxic substances which could affect terrestrial and aquatic habitats.
5. Extraction of certain construction materials and timber could have an important bearing on terrain and vegetation disturbance, wildlife and aquatic resources.
6. Large volumes of fuels and chemicals stored at these sites and associated transfer operations present potentials for spills into adjacent river channels.

Present Status Under EARP

The official request for Panel review was received in January 1975, and the Panel was formed in the same month. Panel members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

M. R. Rue1
(A/Director Northern Natural Resources
and Environmental Branch
Dept. of Indian and Northern Affairs
Ottawa, Ontario)

A. W. Mansfield
(Director, Arctic Biological Station
Fisheries and Marine Service
Fisheries and Environment Canada
Ste-Anne de Bellevue, P. Q.)

D. Surrendi
(Chief, Migratory Bird Management Div.
Canadian Wildlife Service
Fisheries and Environment Canada
Edmonton, Alberta)

J.R. Marsh
(Chief, Environmental Control Branch
Environmental Protection Service
Fisheries and Environment Canada
Edmonton, Alberta)

Guidelines for the production of the environmental impact statement(s) were issued to the initiator May, 1975. They are available to the public. The impact statement(s) are currently in preparation.

Future Panel Events

For each component, an individual impact statement will be prepared for Panel review. In addition, an overview impact statement will be submitted to consolidate the total package. This will address the **interrelationships** of the three plants and their cumulative impacts. Upon receipt of the impact statements, these will be reviewed by the Panel and arrangements for their public and professional review will be made.

MACKENZIE RIVER DREDGING PROGRAM

Location

Mackenzie River, between Hay River and the Mackenzie River Delta, N.W.T.

Initiator

Arctic Transportation Agency, Federal Department of Transport. (Project Agency, Federal Department of Public Works)

Description

Improvement of the navigation channel in the specified section of waterway, to provide for a minimum 8 foot grade depth and 350 foot width allowing 6 foot draft vessel loadings. This would include channel realignments at rapids areas to eliminate barge relay operations. This program could be undertaken either in support of construction logistics for a Mackenzie Valley natural gas pipeline or as a permanent piece of transportation infrastructure to meet long term traffic growth. For pipeline construction support, a three year program may be the most desirable; total estimated cost \$45 million (1975 \$). For long term traffic growth, a five-year program would be more suitable; estimated cost \$40 million (1975 \$).

Possible Environmental Impacts

1. Change in water levels and related environmental effects.
2. Effect of dredging on fisheries.
3. Disturbance of bird populations.
4. Change in river regime and effects on ecology of banks - fauna, flora, and other effects, i.e. changes to historical, archaeological sites.

Present Status Under EARP

Request for Panel made in April 1976. Panel formed May 1976. Panel members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Hull, P.Q.)

K. Davies
(Water Survey of Canada
Fisheries and Environment Canada
Calgary, Alberta)

M. G. Hagglund
(Administrator
Arctic Transportation Agency
Transport Canada
Ottawa, Ontario)

R. J. Paterson
(Director, Environmental Secretariat
Fisheries and Marine Service
Fisheries and Environment Canada
Winnipeg, Manitoba)

V. D. Hawley
(Canadian Wildlife Service
Fisheries and Environment Canada
Calgary, Alberta)

Guidelines for the production of the Environmental Impact Statement were issued by the Panel to the initiator, July 1976. These are available to the public.

Future Panel Events

Field studies related to the production of the Environmental Impact Statement are now in progress. The earliest presentation date for the statement is fall, 1977. Upon receipt of the impact statement, the Panel will commence public and technical reviews. A public participation program is currently in preparation to involve the public in the review of the impact statement.

YUKON RAILWAY STUDY

Location

The study includes consideration of alternatives within the Yukon Territory with possible links to British Columbia, Alaska or the Northwest Territories.

Initiator

Federal Department of Transport

Description

Improvement of transportation systems in the Yukon involving the study of several alternate railway and one road development strategies. The ultimate purpose of the project is to aid in the development of the natural resource potential of the Yukon. The alternates range in capital costs from \$35 million to \$370 million (1974 \$). The proposed start of construction is not known at present.

Possible Areas of Environmental Impact

Not known at present

Present Status Under EARP

The project was referred for Panel review in October 1976. The Panel was formed in December 1976. Panel members are:

F. G. Hurtubise, Chairman
(Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

G. Jones
(Manager, Northern B.C. and
Yukon Branch
Fisheries, Pacific Region
Dept. of Fisheries and the Environment
Vancouver, B. C.)

H. M. Hill
(Vice-Chairman
Environmental Assessment Panel
Hull, P. Q.)

M. Dennington
(Canadian Wildlife Service
Dept. of Fisheries and the Environment
Whitehorse, Yukon)

C. Wykes
(District Manager
Environmental Protection Service
Dept. Fisheries and the Environment
Whitehorse, Yukon)

J. Hawryszko
(Arctic Transportation Agency
Transport Canada
Ottawa, Ontario)

Guidelines for the preparation of an environmental impact statement are currently in preparation.

Future Panel Events

A public participation and information program will be prepared in the near future. The guidelines will be made available to the public when approved by the Panel.

SHAKWAK PROJECT (HAINES ROAD/ALASKA HIGHWAY)

Location

Northwestern British Columbia and the Yukon

Proponent

U. S. Highways Administration

Initiator

Canadian Federal Department of Public Works

Description

Reconstruction and paving of the portion of the Alaska Highway from the Alaska/Yukon border to Haines Junction in Canada, and the Haines cut-off road from Haines Junction to the B.C./Alaska border. Existing alignments will be used for the major portion of the project. The proposed start of the project is 1977 and the estimated cost may exceed \$150 million (1975 U.S. \$). The capital financing will be supplied by the U.S.

Possible Environmental Impacts

1. Removal of vegetative cover and its effect on plant communities, wildlife habitat and areas underlain with perma-frost.
2. Interference with traditional wildlife movement routes.
3. Impairment of fish habitats through sedimentation of spawning beds or actual removal of stream bed gravels.
4. Further reduction of wilderness values due to induced recreational use of the road and region.
5. Reduction of game populations and fish stocks by increased hunting and fishing.

Present Status Under EARP

The request for a Panel was received July 1974 and the Panel was formed March 1975. Members are:

F. Hurtubise, Chairman
(Chairman
Environmental Assessment Panel
Hull, P. Q.)

W. Koropatnick
(Director General
Department of Public Works
Vancouver, B. C.)

H. M. Hill
(Vice-Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

H. Beaubier
(Regional Manager, Lands
Dept. of Indian and Northern Affairs
Whitehorse, Yukon)

D.S. Lacate
(Director, Lands Directorate
Pacific Region
Fisheries and Environment Canada
Vancouver, B. C.)

C. Wykes
(District Manager
Environmental Protection Service
Fisheries and Environment Canada
Whitehorse, Yukon)

Guidelines for the preparation of the Environmental Impact Statement were finalized and approved May, 1976, after discussions with the U.S., Province of British Columbia and the federal Department of Indian and Northern Affairs. These three agencies are ex-officio members of the Panel.

The guidelines as constituted will serve the needs of all governments involved in the project, and have been issued to the initiator and proponent.

Future Panel Events

The projected date of presentation of the impact statement to Canadian and American authorities is likely to be some time after October, 1977 at which time the environmental review process would be different in each country. The format for public involvement in the environmental assessment of the project is presently in preparation.

ALASKA HIGHWAY GAS PIPELINE PROJECT

Location

Southern sector of the Yukon Territory.

Proponent

Foothills Pipe lines (Yukon) Ltd.

Initiator

Department of Indian and Northern Affairs.

Description

Construction and operation of a 48 inch diameter buried gas transmission line to initially transport Alaska gas to U.S. markets in the lower 48 states. The proposed Yukon section of the line runs from Beaver Lake in the western corner of the Yukon, along the existing Alaska Highway for 512 miles to Watson Lake in the southeast Yukon. At its northern end the pipeline is proposed to connect to 732 miles of pipeline in Alaska, and at its southern end to 1500 miles of proposed line in British Columbia, Alberta and Saskatchewan. The system will tie in at the 49th parallel with the U.S. system. The Panel is also examining future possible lateral lines to the Mackenzie Delta reserves via the Dempster Highway and other possible routes. This linkage would transport Canadian gas to Canadian Markets. The projected cost of the Beaver Lake to Watson Lake line is \$1.24 billion (1976 \$) and construction is projected to start in 1979.

Possible Environmental Impacts

1. Degradation of permafrost subsidence and possible rupture of pipeline.
2. Siltation of streams, interruption of migratory fish runs, destruction of spawning and rearing areas.
3. Displacement of wildlife species such as Dall sheep from their traditional range.
4. Specific adverse effects on Porcupine Caribou herd, e.g. Dempster Highway lateral.
5. Scarring of landscape in National Park areas.

Present Status Under EARP

The project was referred for formal Panel review in March 1977, and the Panel was formed in May, 1977. Panel member are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

C. Wykes
(District Manager
Environmental Protection Service
Fisheries and Environment Canada
Whitehorse, Yukon)

D. S. Lacate
(Director, Pacific Region
Lands Directorate
Dept. Fisheries & Environment
Vancouver, B. C.)

O. Hughes
(Geological Survey of Canada
Dept. of Energy, Mines and Resources
Calgary, Alberta)

B.J. Trevor
(Director of Operations
Dept. of Indian & Northern Affairs
Whitehorse, Yukon)

L. Chambers
(Yukon Territorial Government
Whitehorse, Yukon)

The normal procedure for environmental impact assessment is the establishment of an Assessment Panel which issues formal guidelines for the preparation of an environmental impact statement, conducts technical and public reviews of the statement and makes recommendations to the Minister of Fisheries and the Environment concerning project implementation. In this case, however, the federal government will be facing major decisions on competing pipeline proposals in the fall of this year. The short lead time available to the Panel makes a full environmental assessment and review of the project impossible at this time. Instead, the Minister has instructed the Panel to review existing data, seek public and professional opinion and prepare an interim report by August 1, 1977 on the understanding that, if the project is still a contender after decisions on competing proposals have been made, the normal panel procedure involving a full and complete review of the project would apply. Submission of an interim report by August 1, will enable the government to consider environmental factors associated with this project in its decision-making process. The report to be submitted will outline the major environmental issues known at the time and identify any major data deficiencies.

The Panel held a preliminary meeting in May in Whitehorse to inform the public of the project and to obtain public feedback on the procedures for the substantive hearings. The first part of the latter were held June 13 to 17 in Whitehorse and dealt with the identification of environmental concerns. Community meetings along the proposed pipeline route were also held in May and June. The Panel conducted the second phase of the hearings, commencing July 5 in Whitehorse. This phase concentrated on obtaining further information from the public and from technical experts assigned to assist the Panel, on the concerns raised in the June meetings.

Future Panel Events

It is expected that the Panel will deliver their report to the Minister by August 1, 1977.

EXPANSION OF AIR TRAFFIC CAPACITY OF VANCOUVER INTERNATIONAL AIRPORT

Location

Vancouver International Airport, Richmond, British Columbia.

Initiator

Federal Department of Transport (Canadian Air Transportation Administration)

Description

Improvement to the passenger and aircraft handling capacity of Vancouver International Airport, Sea Island, south of Vancouver, to provide for the demand projected by the initiator. The initiator's preferred alternative is the proposed construction of a parallel runway and related facilities inside the dyke at Vancouver International. The proposed start of construction is 1978-79.

Possible Environmental Impacts

1. Removal of land from agricultural use.
2. Reduction in the availability of the Sea Island area as habitat for migrating birds, resident birds and other wildlife.
3. Increase in aircraft noise and the resultant effect on wildlife and the surrounding residential areas of Vancouver and Richmond.

Present Status Under EARP

Project submitted to the federal Environmental Assessment and Review Process, August 1976. Panel formed November 1976. Members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Fisheries and Environment Canada
Hull, P. Q.)

B. A. Heskin
(Regional Director
Environmental Protection Service
Fisheries and Environment Canada
W. Vancouver, B.C.)

K. Johnson
(Manager, Airport Operations
Transport Canada, Pacific Region
Vancouver, B.C.)

J.P. Secter
(Lands Services, British Columbia
Department of the Environment
Victoria, B.C.)

R. W. Stewart
(Director-General
Fisheries and Marine Service, Pacific Region
Fisheries and Environment Canada
Victoria, B.C.)

Future Panel Events

A public information and participation program has been prepared. A component of this program is the issuing of the draft guidelines to the public for their **comments** and review. This step is expected to commence in the near future. The present projected date of production of the impact statement and its submission for Panel and public review is the first quarter of 1978.

FRASER RIVER TRAINING WORKS PROGRAM

(Deepening of Fraser River Shipping Channel)

Location

Fraser River Estuary, New Westminster to Georgia Strait, Vancouver, British Columbia.

Initiator

Federal Department of Public Works

Description

Upgrading of the channel to a standard enabling safe passage on a year round basis for the current types of vessels in common usage. Proposed method of achieving this objective is by installation of training works to enable the river to become primarily self-scouring in specific areas of the main shipping channel to a depth sufficient to provide a maximum 40' draft.

Proposed start of the project is 1978-79 with construction projected over a 5 year term. Estimated cost (1976 \$) is \$31 million.

Possible Environmental Impacts

1. Changes in water quality - sedimentation, salinity, effects of training walls.
2. Changes in aquatic and marsh flora and also invertebrates including variation in area of productive habitat in backwaters and mudflats.
3. Fish populations - fluctuations in area of available productive habitat, deterrents to migratory adult salmon, premature exposure of juvenile salmon to salt water.
4. Alteration of some bar fishing areas.
5. Effect of any increased velocity on commercial fishing vessels and on efficiency of **gillnet** fishing boats and other marine traffic.

Present Status Under EARP

Panel formed July 1976. Members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Hull, P.Q.)

E. Johnson
(Environmental Coordinator
Department of Public Works
Vancouver, B.C.)

F. C. Boyd
(A/Director, Habitat Protection
Fisheries and Marine Service
Fisheries and Environment Canada
Vancouver, B. C.)

K. Kupka
(Chief, Federal Activities
Environmental Protection Service
Fisheries and Environment Canada
Vancouver, B. C.)

E. M. Clark
(Regional Director, Pacific Region
Inland Waters Directorate
Fisheries and Environment Canada
Vancouver, B. C.)

The Province of British Columbia (Dept. of Environment) is represented as an ex-officio member of the Panel. Guidelines for the preparation of the Environmental Impact Statement (EIS) have been issued by the Panel and are available to the public for their information. A public participation program for the Panel review of the project is in preparation.

Future Panel Events

The draft Environmental Impact Statement to be prepared by DPW's consultant, will not be available before April, 1978.

ROBERTS BANK BULK LOADING FACILITY EXPANSION

Location

Roberts Bank, British Columbia. The port is located close to the U.S./Canada border, some 20 miles south of Vancouver.

Initiator

National Harbours Board, Department of Transport.

Description

Proposed expansion of the existing Roberts Bank bulk loading facility into the offshore estuary area. The proposed (second phase) of construction - expansion would add approximately 200 acres to the existing facility which is used to export coal. This would include four new integrated, receiving, storing and automatic ship loading bays capable of handling coal, and other bulk commodities. The proposed facility would cost \$24 million (1975 \$) with construction projected to start in 1977/78.

Possible Environmental Impacts

1. Removal of land from existing and potential uses.
2. Conflict with commercial and recreational use of adjacent waters.
3. Impairment of marine and intertidal environments.
4. Effects on vegetation, benthic and littoral organisms including utilization of areas by fish species.
5. Impairment of the atmospheric environment by airborne pollution resulting from the storage and handling of non-containerized bulk commodities.

Present Status Under EARP

The project was referred for a Panel review, May 1975. The Panel was formed at the same time. Panel members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Hull, P. Q.)

F. J. N. Spoke
(Manager, Port of Vancouver
National Harbours Board
Vancouver, B. C.)

D. S. Lacate
(Director, Pacific Region
Lands Directorate
Fisheries and Environment Canada
Vancouver, B. C.)

B. A. Heskin
(Regional Director
Environmental Protection Service
Fisheries and Environment Canada
Vancouver, B. C.)

Finalized, approved guidelines for the preparation of the environmental impact statement were issued by the Panel to the initiator, March 1976. These are available to the public. The Province of British Columbia (Department of the Environment) is represented as an ex-officio Panel member. The initiator has selected a consultant to prepare the Environmental Impact Statement and this work is underway.

Future Panel Events

Preparation of a program to involve the public in the review of the impact statement has been initiated. The expected date of submission of the impact statement is October, 1977.

REACTIVATION OF BOUNDARY BAY AERODROME

Location

Boundary Bay, British Columbia. The site is located some 25 miles south of Vancouver.

Initiator

Federal Department of Transport (Canadian Air Transportation Administration).

Description

The project was proposed as a result of the Master Planning exercise conducted by the initiator for the Lower Mainland area of British Columbia. For the general aviation aircraft category, the Plan concluded that by 1980 all of the existing capacity of the region's airports would be required plus a new airport. Reactivation of Boundary Bay to serve this purpose and would also encourage the shift of light aircraft from Vancouver International. It is projected that only propeller driven planes would use Boundary Bay. Projected costs and start of construction dates are not yet known.

Possible Environmental Impacts

1. The site is a major congregation area for migratory birds on the Pacific flyway. Changes in use of the site such as a new airport could have international repercussions.
2. Bird strike hazards.
3. The site is near large areas of agricultural land that is a central feeding area for wintering waterfowl.

Present Status Under EARP

The project was referred for Panel review in October 1976. The Panel was formed in March 1977. Panel members are:

H. M. Hill, Chairman
(Vice-Chairman
Environmental Assessment Panel
Hull, P.Q.)

L. Retfalvi
(Canadian Wildlife Service
Fisheries and Environment Canada
Vancouver, B.C.)

P. Scott
(Environmental Protection Service
Fisheries and Environment Canada
Vancouver, B.C.)

K. Johnson
Manager, Airport Operations
Transport Canada
Vancouver, B.C.)

Future Panel Events

The Panel's first tasks will be to authorize and issue guidelines for the preparation of an Environmental Impact Statement to the initiator and determine the nature of the public information and participation program. The impact statement guidelines will be made available to the public.

GENERAL INFORMATION ON THE FEDERAL ENVIRONMENTAL ASSESSMENT AND REVIEW PROCESS

Administration and Staff

Process procedures, particularly the operation of Panels are administered by a permanent Chairman appointed by the Department of Fisheries and the Environment. The present Chairman is Mr. F.G. Hurtubise. He (or his delegate) chairs all Panels established to review projects and he reports to the Minister of Fisheries and the Environment on recommendations made by Panels. The office administered by the permanent chairman was previously known as the Environmental Assessment Panel office. The name of this office has recently been changed to Federal Environmental Assessment Review Office and the title of the permanent chairman to Executive Chairman. This adjustment in designation does not in any way change the responsibilities of the permanent chairman (or his office) under the Process, but is designed to clarify the difference between the separate Environmental Assessment Panels established to review each project, and the permanent chairman's administrative obligations for the Federal Environmental Assessment and Review Process as a whole.

The staff of the Federal Environmental Assessment Review Office in Ottawa are listed below:

<u>Name & Title</u>	<u>General Duties</u>
Dr. Harry H. Hill Vice-Chairman	Management of office staff to Panels Chairman of Panels
Mr. Wally S. Tait Senior Advisor	Policy formulation and development Process evaluation Liaison and coordination with federal departments and agencies General office administration
Dr. Patrick J.B. Duffy	Panel advisor, Maritimes projects Baseline Information program development
Mr. Pierre Moreau	Liaison and coordination systems development Assistance in policy formulation and development
Mr. Jean Thomas	Technical editing of EARP documents Panel advisor, Quebec
Mr. Michael Warder	Public information and participation systems development Panel advisor, Ontario, Manitoba, Saskatchewan and Alberta

Mr. Al Winmill	Development of environmental assessment methodology Panel advisor, N.W.T., Yukon
Mr. Paul G. Wolf	Policy and process evaluation and review development Assistance in policy formulation and development

Recently a Pacific Regional Office was opened in Vancouver. This is the first regional office to be established. The growing number of federal Panel projects in British Columbia and the demonstrated public interest in environmental issues in the area necessitated this move. The Manager of the Office is Mr. John Herity. One of the principal functions of the new office will be as point of contact with the public on panel projects.

For information concerning the Environmental Assessment and Review Process or specific panel projects, contact:

Office of the Executive Chairman Federal Environmental Assessment Review Office Fisheries and Environment Canada Ottawa K1A 0H3	Telephone: (819) 997-1000
--	---------------------------

or: Mr. J.F. Herity Manager, Pacific Region Federal Environmental Assessment Review Office 1050 West Pender St., Room 1870 Vancouver, B.C. V6E 3S7	Telephone: (604) 666-2431
--	---------------------------

For placement on the mailing list for the Register or for extra copies, contact:

Information Services Fisheries and Environment Canada Ottawa K1A 0H3	Telephone: (819) 997-2940
--	---------------------------